



Narasimharaja Colony, Bangalore –560 019.

Website:apsartsandscience.org Email: apscollegeofartsscience@gmail.com

Dr B.Jayashree, M.Sc.,(Phy)., M.Phil., Ph.D., PRINCIPAL

### Report of Class-Representative Selection

The Cultural Committee, APS College of Arts and Science conducted class representative elections for First, Second, and Third-year B.A., B.Sc., and B.C.A. students on 29<sup>th</sup> November 2022. The process involved nominations, a candidate forum, and a voting system to ensure fairness. Students participated actively, showcasing enthusiasm for leadership roles. Transparency was maintained in announcing the results. Dr. B. Jayashree, Principal, informed all the Class Representatives to be actively participate in the college cultural activities and also mentioned to present the grievance of the students to the mentors at the end of the week. Class representatives presented their views about the future plans and the activities to be

The Cultural Committee collected valuable feedback during the process.



conducted in the campus.







PRINCIPAL 29 IN PRINCIPAL APS College of Arts & Science N.R. Colony, Bangalore-560 01:

Telephone: 080-26603192



# Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore –560 019.

Website:apsartsandscience.org Email:apscollegeofartsscience@gmail.com

Dr. B. Jayashree, MSc., M.Phil., Ph.D.,

I/c PRINCIPAL

APSC A/S No./ 519A /2022-2023

Date 26.11.2022

### <u>Circular</u>

All the mentors are informed to select class representatives preferable unanimously on 29.11.2022 at 12 noon in their respective class rooms. 75% of attendance is compulsory & should be duly signed by concerned teachers for selecting class representatives.

Principal

APS College of Arts & Science N.R. Colony, Bangalore-560 019,

Narasimharaja Colony, Bangalore -560 019.

### List of Class Representatives

Sl. No.	Name	Class / Combination	Phone Number
01	Anirudh & Rashika	I BA	9972238695/7019654552
02	Manoj & Sumathi	II BA	9353399252 / 97319981670
03	Vinutha & Ranganath	III BA(HEK)	9731536398 / 7760863447
04	Tejaswini & Nandan	III BA (HEP)	8884165030 / 91488498483
05	Abhishek / Jyothi Varma	II BSc(PCM)	9743133272 / 8095938696
06	Chandu & Rekha	III BSc (PCM)	9110448808 / 6366111750
07	Lokesh & Sharmila	III BSc (CBZ)	9901972771 / 9731981670
08	Prakruthi & Prajwal	I BCA	8951452497 / 9148157444
09	Balashakthi & Harshitha	II BCA	8050004079 / 8792102722
10	Meghana & Sumanth	III BCA	6361969828 / 8884656650

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Dr B.Jayashree, M.Sc.,(Phy)., M.Phil., Ph.D., PRINCIPAL

### 10 Days Next Gen Employability Program Report

The placement cell of APS College of Arts and Science, N.R. Colony, Bangalore in association with Edu.Net foundation conducted a 70 Hrs. Next Gen Employability program for 2<sup>nd</sup> and 3<sup>rd</sup> year B.Sc., and BCA students from 17<sup>th</sup> April 2023 to 26<sup>th</sup> April 2023. It is a training program scheduled for 70hrs and the outlined content for non-engineering students was divided into 5 modules which consisted topics from Basic and advance Excel, obtaining data from different sources, transforming, designing and developing a data model and also to create reports and dashboards along with the skills to manage files, workspaces and datasets.

Trained faculties from Edu.Net were conducting the classes for the students. The orientation program was conducted on 14<sup>th</sup> April 2023 in order to mark the beginning of the session. It was conducted online through zoom platform. Narendra Eluri from Edu.Net and Sunil Kumar K from APS college of Arts and Science were the hosts for the orientation program. Around 44 students attended the session.

The training schedule went on from 17<sup>th</sup> April to 26<sup>th</sup> April in two sessions. Students attended both the sessions regularly and enthusiastically.

The valedictory session of the program was held on 26<sup>th</sup> April 2023 at 11 A.M in presence of Sri. A. R. Acharya, General Secretary, APSET, DR. B. Jayashree, Principal APSAS, Ms. Alisha, Edu.Net Next Gen Employability trainer. Sri. Sunil Kumar K, placement officer of APS College of Arts and Science welcomed the gathering. The students who participated in the program gave positive feedbacks about the training session and thanked the organizers for conducting this training session in the college for free of cost.

Dr. B. Jayashree, Principal addressed the students and said that along with academics, Handson skills are very important for students to be successful in all fields. She said that this program has highly benefitted the students in order to be competent in their future prospects. She thanked the management for their support and also congratulated the placement cell members for their initiative to conduct this program in the college smoothly.

Sri. A.R. Acharya, General Secretary addressed the gathering and said that our college has always conducted variety of programs to make the students competitive and successful in many ways. He motivated the students by saying that the students must make the best utilization of

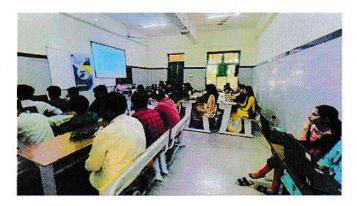
the resources available in the college and also conveyed that these skills are required for overall development of the students.

The vote of thanks was proposed by Sri. Satyappa Nayaka M.J, Placement cell member.

#### Outcome:

The program was conducted to promote the all-round development of the student's potentials by providing need-based career-oriented quality education with an emphasis on social concern.

Around 40 students attended the program and were exclusively benefitted with the skills and talent required for their successful journey as students.

























APS College of Arts & Science N.R. Goloov, Bangalore-560 019,



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Dr. B. Jayashree, MSc., M.Phil., Ph.D.,

I/c PRINCIPAL

APSAS/

1 /2022-2023

Date: 11.04.2023

Next Gen Employability Program for 2<sup>nd</sup> and 3<sup>rd</sup> year B.C.A & B.Sc., Students Organised by Placement Cell in Association with Edu. Net.

### Training Schedule for 70 Hrs. Programs

Sl. No.	Date	Time	Hours
01.	17.04.2023	9:00 am to 5:00 pm	07 Hrs.
02.	18.04.2023	9:00 am to 5:00 pm	07 Hrs.
03.	19.04.2023	9:00 am to 5:00 pm	07 Hrs.
04.	20.04.2023	9:00 am to 5:00 pm	07 Hrs.
05.	21.04.2023	9:00 am to 5:00 pm	07 Hrs.
06.	22.04.2023	9:00 am to 5:00 pm	07 Hrs.
07.	23.04.2023	9:00 am to 5:00 pm	07 Hrs.
08.	24.04.2023	9:00 am to 5:00 pm	07 Hrs.
09.	25.04.2023	9:00 am to 5:00 pm	07 Hrs.
10.	26.04.2023	9:00 am to 5:00 pm	07 Hrs.

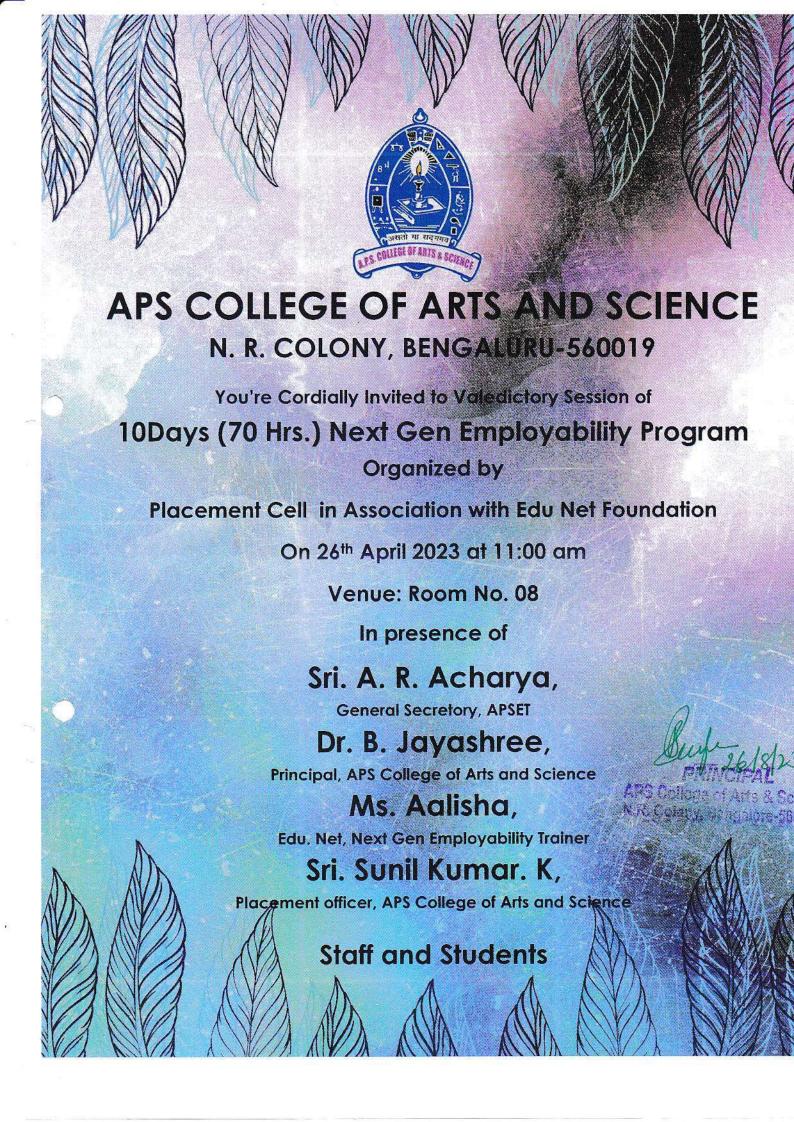
### Note:

Morning Session: 9:00 am to 12:00 pm

❖ Afternoon Session: 1:00 pm to 5:00 pm

Principal PRINCIPAL

APS College of Arts & Scler N.R. Colony, Bangalore-560 (







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#### Memorandum of Understanding

This Memorandum of Understanding is entered on 1<sup>st</sup> March 2023 by and between Edunet Foundation having its office at A-11- 1105, Arcadia South City 2, Gurgaon 122018, India (hereinafter referred to as "Edunet"); and APS College of Arts and Science having its address APS College of Arts and Science, N. R. Colony, Bengaluru 560019, Karnataka, India. (hereinafter referred to as "institution")

Whereas, Edunet is a non-profit organization with multiple programs, sponsored by government and corporate entities, that are offered free to learners across the education spectrum, including but not limited to Next Gen Employability Program (<a href="http://ey.edunetworld.com">http://ey.edunetworld.com</a>).

Whereas, Institution is a premier institution with the following details:

Established (year):	1956
Vision:	To Promote the all-round development of the student's potential by providing need- based career- oriented, quality education with an emphasis on social concern

And whereas, the Parties seek to collaborate with each other to mutually complement their synergies and to jointly work on building capacity of learners through one or more of the programs managed by Edunet.

Now therefore, this **Memorandum of Understanding** (hereinafter called **"MOU"**) witnesses the following.

- .1. Term and termination: This MOU is valid for an initial term of 1 year from the Effective Date. It can be extended by further periods, as agreed to by the Parties from time to time. Either Party may terminate this MOU by giving the other minimum 30 days' notice. The MOU will be deemed terminated at the end of the notice period or after completing all ongoing activities so that the beneficiaries (learners and teachers) are not negatively impacted, whichever is later.
- 2. **Non-binding nature of this MOU**: The MOU is not binding on either Party and each is working with the other out of sheer good-will and for the benefit of the learners.
- 3. Single Point of Contact (SPOC) for program co-ordination: Both the Parties shall appoint a suitable person who will serve as a single of contact on all matters related to program rollout. Individual learners and teachers may be in touch with corresponding trainers, mentors, advisors and peers during program rollout but all matters related to the execution of this MOU shall reside with the SPOC.

Bangalore office: Fairway Business Park, 7th Floor, EGL, Domlur, Bangalore 56007

Gurgaon/NCR office:A-11-1105, Arcadia, South City 2, Gurgaon 122018 info@edunetfoundation.org

> APS College of Arts & Science N.R. Colony, Bangalore-560 019.

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4. **Program Calendar**: The SPOCs from both Parties will work with their respective internal stakeholders to develop a calendar for the program(s) rollout at the start of every quarter. This calendar will then by synchronized and published for use by everyone.

#### 5. Responsibilities of Edunet and/or its program sponsors/partners:

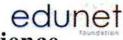
- a. **Orientation sessions**: Edunet will conduct orientation sessions for learners and educators, at a mutually agreed schedule, to onboard them onto the program(s).
- b. **Program materials**: Edunet will share all program materials with the institution and/or learners as required. All sharing will be online and/or through electronic media.
- c. Online instructor led sessions: These sessions may take the form of coursework sessions, webinars or mentoring workshops or technology bootcamps or innovation camps or career readiness workshops that will seek to assist learners in their career goals. These programs will be organized regular as per a regular calendar, published online and will be conducted by Edunet team members or program sponsors or external stakeholders as appropriate.
- d. Interaction with Industry experts: Edunet will bring industry experts to the Institute to drive engagements with students through seminars/webinars or project mentorship.
- e. Online platform availability: Online platforms for each of the programs of interest to the Institution will be made available to it. Links for these platforms will be made available to the Institution in a timely manner.
- f. Assessments: Edunet will conduct assessments, as required, for its programs prior to certification by Edunet and/or its industry partners and/or participating government agencies.
- g. For programs with career paths: Edunet will provide linkages with local and regional industry, government and the local start-up ecosystem (incubators etc) that will help learners with gainful employment and/or entrepreneurial opportunities. Interactions will be encouraged in terms of classrooms sessions, workshops, internship opportunities, career opportunities and entrepreneurship opportunities.
- h. **Updates:** Edunet will keep Institution management updated with the progress of the program(s)

#### Responsibilities of Institution:

- Learner identification: Institute will identify learners, volunteers and instructors who may participate in one or more programs offered by Edunet.
- b. **Support with orientation sessions**: Institute will support Edunet conduct orientation sessions for all stakeholders.
- c. Support with attendance: Institute will ensure that program participants enthusiastically participate in chosen programs, with minimum attendance as agreed between the Parties.
- Support with assessments: Institute will ensure that assessments carried onsite are
  proctored and professionally managed.
- No fees: Institute will not charge any extra fees from learners for participation in Edunet programs. Edunet will not charge any fees from the students/university for the program.

Bangalore office: Fairway Business Park, 7th Floor, EGL, Domlur, Bangalore 560071 Gurgaon/NCR office:A-11-1105, Arcadia, South City 2, Gurgaon 122018 <u>info@edunetfoundation.org</u>







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IN WITNESS WHEREOF, the parties hereto have executed this MOU on the Effective Date.

For Institution Belefur	For Edunet Foundation
Name: DX.B. JAVASHREE	Name:
Designation: PRINCIPAL	Designation:
Institutional Seal:	

\* Wathness :-

[Sunul Kumar. K]
Asst. Professor and Placement office
APS College of Arts & Schence
No. R. Colony, Bengaluru-5600

# **APS College of Arts and Science**

N R Colony, Bengaluru- 560019

# Next Gen Employability Program for 2nd and 3rd year B.C.A & B.Sc., Students

Organised by Placement Cell in Association with Edu. Net.

Sl.	Name of the Student	Course	Year.	Sem.	Contact Number	Email Id	Signature
1	MEGHANA.	BCA	三(三)	N.	973944 -8873	meghara 2002 alo hlagmail com	Magne
2	PRATHIBA,R.	BCA	1≡2	(5)	70194 67054	prathiba6705 -4@gmail.com	Prathi
3	JOTHIKA. G	BCA	<u>[u</u>	(5)	815200 6943	jyothi 636135 @gmail.com	111251111
4	TEJASWINI.M	BCA	<u>(E)</u>	15/	89046 90431	teju3103@ gmail.com	Teçu
5	Vaishnan.k.v	BCA	(三)	(5)	935318 4228	vois hnovilare 24@g mail.com	, Lains
6	SHARMILA.J	BSC		(A)	97319	Shaunitapsaja pato 7@ gnaila	2 hounily
7	M. MUSKAN	BSC	I	(VI)	74836 03502	mus kanshahir 7483@gmaillon	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
8	Phiya k.D	BCA	( <u>=</u> )	12/	886756 5203	Priyacd2003	Friyak.D
9	Shrere Lakshmi	BCA	<u>[ii]</u>	121	82777 40409	Shoreelakshmi bhigamudore Qgmall.com	Bhewwelapehmi

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10	Amuitha, M	BCA	T	VI	943980 4051	amutham 654 Egnail.	Montro
11	Hanshitha D	BCA	III	VI	81970 44396	harshullt2 @gmail.Com	Marshitho.D.
12	Hemalatha P	BCA	<u> I</u>	<u>ড</u>	82961	bhemalathass agnail com	Hemolodyap
13	Neha.G. Kultani	BCA	11 -	V/	8277 6302 97	ruhagKulkani 1202 agrail · com	N.G. Kul
14	Gowthami N	BCA	<u> </u>	Y	733766 3301	nagavajnagusin, -dhuQqwailo	
15	Vaoum. R	BCA	I	14	9980318	Vnaik 1396 Ozmail.com	Jasun. R
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17	Chandan S	BCA	耳	N.	96204 40595	Chandansblror Ogmail.com	Canton &
18	Sumanth DN	BCA	H	址	88846 56650	Suman Sumanth 744@gmail.Lom	Sunarth. D. N
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36 KRUTHIKA M.R B. SC III 388163 Buthilkasasha
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37 IYOTHI VERMA BSC. II III. 809593 vermajyothi 5696 00@gmail.com trothi
38 Wiana. K B.sc II IV 88612 dianaka @ Viana. Ka.
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7 40 Aishwarya, R B. sc Wi 49563 & aishwaryas at Shugge and Alshuarya &
41 Jhanalakshni B. Sc W VI 690 2002 ag wait com Shaw
42 Reathars Bisc in VI 96866 geethashelly 57917 311@qmail.com Granas.
43 Chaithra MR Bsc III VI 86627 292@gmail.com Chaitra
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# **APS College of Arts and Science**

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Next Gen Employability Program for 2nd and 3rd year B.C.A & B.Sc., Students

Organised by Placement Cell in Association with Edu. Net.

Feedback form Day 1 Session

			Torin Day 1 Sessi	
Sl. No.	Name of the Student	Course/ Sem.	Is Day 1 Session was helpfull (Yes/ No)	Feed BAck about Day 1 Session
1	MEGHANA. A	II Yen BCA	Yus	Very helful. Learnt from the scratch
2	TEJASWINI · M	III Year BCA	Yes	Very Intresting
3	Jyothika. G	∭ Year BCA	Yes	very Propormative and learnt new things.
4	Vaishnavi K.V	TI year BCA	Yes	Informative Session
5	Sushmitha . S	III Year Obsc	Yes	errefull
6	Manjula, S. C	W Year BSC	Yes	Helpfull.
7	Shashi Rekho	Tycar BCA	Yes	Helpfull
8	Neha.G.Kukon	BCA	Yes	Fletpfull
9	Anetha.P	M Year BCA	Vu	Very helpful. Learnt New Skills

10	Amoutha. M	Year OCA	Yes	Very Informative, Learnt many new thing.
11	Harshitha.D	H Year BCA	Yes	useful.
12	Gowthami. N	3 chear BCA	Yes	Information un this Section.
13	Priya k. D	3 year BCA	Yes	Very Usefull
14	M · Muskan	3 year BSC	Yes	Useful.
15	YOGESH. M	3rd years	Yes	ternt New things
16	Mohanned Ayen	30 years BLA	Yes	Knowledable
17	Wiano. K	2nd year B.sc	Yes	interesting. E usepul
18	Vasundra, p	and year B. sc	Yes	Very useful.
19	Landluga &	grad geal BSC	y ed	by ains Knowledge
20	KOUSTILYA	391d year BSC	yes	Helpfull Session
21	Haushitha.v	3rd year BSC	yes	Good Coaching and Very Useful

22	Sheela.s	II year Bsc	Yes	Provide Specific examples.
23	A:shwanya. R	111 Year B.sc	Yes	Et was helpful
24	Dhanalakshmi DB	B.Sc	Yes	Doing well
25	Gutha. S	B.sc	Yes	You're making a luge impail
26	Tyothi Verma	Il year BSC.	Yes	tlelpful.
27	Dhanusha R	III year BSC·	Yes	It was great
28	Kouthika.MR	III yea	Yes.	'Awesome.
29	Pooja	W year BSC	Yes	Interesting, and
30	Kusuma M	Ti Year BSC	Yes	yseful
31	Suchithroa.s	III Year BSC	Yes	Useque
32	Parathiba R	BCX	Y e\$	It Was very use.
33	Karyashree.m	Il year BSC	Yes	Helpful.

34	Sumanth.DN	III year BCA	Yes	Grood.
35	Shashanka	IIYeag BCA	Xes	Gwod
36	Chandan S	Year BCA	Yes	brood .
37	Vasum. R	year BCA	Yes	Grood
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APS College of Arts & Science

N.R. Colony, Bangalore-560 019.

# Acharya Pathasala College of Arts and Science N.R Colony, Bengaluru-560019

# Report On "Fun Fair - Anantha" Celebrated On 30th July 2022

A unique event conducted by the cultural committee was FUN FAIR ANANTHA held on 30-07-2022. The purpose of this event was to familiarize students about entrepreneurial skills, marketing techniques and trading skills. As many as 25 stalls were opened by the students and the programme was inaugurated by the Principal Dr. B Jayashree Madam in her address informed the students about economics of business. More than 300 students and staff of our college, APS PU College, APS Commerce College participated and enjoy the fun. Games and stall organizers made profit and a generously contributed this for fees payment of poor and specially abled students of the college.





Principal

APS College of Arts & Science N.R. Colony, Bangalore-560 019.

Narasimharaja Colony, Bangalore -560 019.

NSS Special Camp at Thirumurthy Gramabhirudhi Kendra, Road Jakkasandra, Kanakapura Tq, Ramanagara Dist.

Day/Date	Programme Name	Duration	Resource Person
26-04-2023	Special Camp Inaugural	1 Hour	Sri. N. Gopikumar
27-04-2023	NSS & Youth Empowerment	1 Hour	Sri. Srinivasamurthy
28-04-2023	Women Empowerment	1 Hour	Dr. B. Pushpa
29-04-2023	Indian Economy	1 Hour	Dr. Lokesha. A
30-04-2023	Live Sustainabal for Solar Energy	1 Hour	Sri. M. Mahadev
01.05.2023	Health & Yoga		Sri. Prabhu Swamy
02.05.2023	Special Camp Valedictory	1 Hour	Sri. Ragesh. H.K

Special Camp was highly successful with 50 No. of Students and Staff Participating. It provided them an experience to mingle with villagers and be of help to them.

Annual NSS Camp was organized by NSS Unit APS College of Arts and Science from 26th April 2023 to 2nd May 2023, Thirumurthi Bhavan, Kanakapura.

APS College of Arts & Science N.R. Colony, Bangalore-560 019,



# Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore –560 019.

Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com

No. APSAS / 199 / 2022-2023

Dated: 13 -07-2022

### CIRCULAR

All the Heads of the Department are hereby informed that Life Skill/add on courses will be conducted for the academic year 2021-22. Courses in Kannada, Physics, Mathematics, Chemistry, Psychology, Humanities and Computer Science are scheduled to be conducted from first week of August 2022 for 4th Semester B.A, B.Sc and B.C.A students. Each of the courses will be conducted for 30 hrs duration. HODs are required to submit the Syllabus and time table before 20<sup>th</sup> July 2022 as it has to be approved in GC meeting.

PRINCIPAL

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APS College of Arts & Science

N.R. Colony, Bangalore-560 019



# Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore –560 019.

Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com

Dr.B.Jayashree M.Sc., M.Phil., Ph.D.
I/C Principal

No. APSAS / 237A/ 2022-2023

Dated: 29 -07-2022

### CIRCULAR

Students of IV Semester BA, B.Sc and BCA are hereby informed that Value added/Certificate courses will be conducted for free of cost during August 2022 for 30 hours as per the notified time table. This will enhance your skills and increase your employability. Certificate will be issued after the successful completion of the course.

Interested IV Semester BA, B.Sc and BCA students are hereby informed to register your name with respective course coordinators.

- 1. Mrs. Sathyashree Department of Computer Science
- 2. Dr. Narasimha Parvathikar Department of Physics
- 3. Mrs. Sona Bai Department of Chemistry
- 4. Mrs. Harshitha.S Department of Psychology

Principa

PRINCIPAL
APS College of Arts & Science
N.R. Colony, Bangalore-560 019/



# Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore –560 019.

Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com

Dr.B.Jayashree M.Sc., M.Phil., Ph.D.
I/C Principal

Dated: 29 -07-2022

# Time Table for Add on/Certificate Course for the Academic year 2021-22 for 2<sup>nd</sup> year B.A, B.SC and BCA

DEPARTMENT	DAY	TIME	STUDENTS
COMPUTER SCIENCE	Monday	2:30 – 4:30 pm	IV Sem BCA & Interested Students from B.Sc & BA
PHYSICS	Friday	3:30 – 5:30 pm	IV Sem PCM & BCA
CHEMISTRY	Saturday	1:30 – 3:30 pm	IV Sem PCM & CBZ
PSYCHOLOGY	Wednesday	3:30 – 5:30 pm	IV Sem BA & BSC

Principal

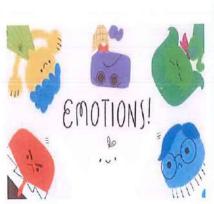
PRINCIPAL
APS College of Arts & Science
N.R. Colony, Bangalore-560 019.

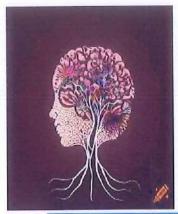


# ACHARYA PATHASALA COLLEGE OF ARTS AND SCIENCE NARASIMHARAJA COLONY, BENGALURU-560019

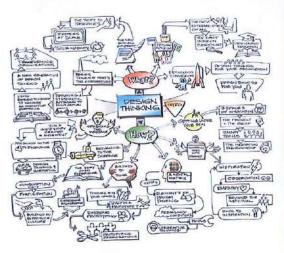
Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com
Telephone: 080-26603192

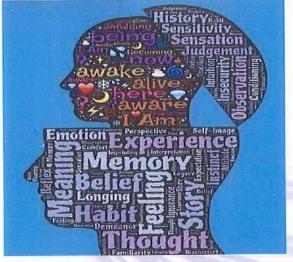
AFFILIATED TO BENGALURU CITY UNIVERSITY NAAC ACCREDITED - B+ GRADE











# DEPARTMENT OF PSYCHOLOGY

VALUE ADDED COURSE

ON

**PSYCHOLOGY AND LIFE** 

Head of the Department of Psychology APS College of Arts & Science N. R. Colony, Bengaluru - 560 019 APS College of Arts & Science N.R. Colony, Bangalore-560 01:

# DEPARMENT OF PSYCHOLOGY **COURSE DETAILS**

Department: Psychology

Name of the Course: Psychology and Life

Number of Hours: 30 Hours

Name of the Course Coordinator: Harshitha S

Contact Number: 8553752375

Email Id: harshithasanju12@gmail.Com

Commencement Date: 3rd of August, 2022.

Time: Wednesday 3.30 pm to 5.30 pm

Venue: Department of Psychology

Head of the Department of Psychology APS College of Arts & Science N R. Colony, Bengaluru - 560 019

APS College of Arts & Science

N.R. Colony, Bangalore-560 015

# DEPARTMENT OF PSYCHOLOGY

## SCHEME OF EVALUATION

Prerequisites: Students currently pursuing Bachelor's degree in Psychology or related subjects.

Objectives of the Course: The value added course "Psychology And Life" aims to equip students in Inter Personal and Intrapersonal Relationships.

Teaching/Learning Strategies: Presentations, Interactive Classroom Sessions, Group discussions.

#### **Evaluation Method:**

- 1. Students Enrolling are Required to attend all the theory classes.
- 2. Must have 75% attendance.

## GRADING SYSTEM FOLLOWED:

GRADE	MARKS
O (OUTSTANDING)	80-100
A (EXCELLENT)	70-79
B (GOOD)	55-69
C (AVERAGE)	40-54

Head of the Department of Psychology APS College of Arts & Science N. R. Colony, Bengaluru - 560 019 APS College of Arts & Science N.R. Colony, Bangatore-560 015

### DEPARMENT OF PSYCHOLOGY

### **SYLLABUS**

e Skills

### I. SELF AWARENESS:

- SELF ESTEEM
- MOTIVATION
- CREATIVITY
- VALUES & ETHICS
- SELF MANAGEMENT

### II. COMMUNICATION & THINKING:

- COMMUNICATION
- THINKING & REASONING
- PROACTIVE THINKING
- POSITIVE THINKING
- ASSERTIVENESS

#### III. EMOTIONS:

- EMOTIONS
- EMOTIONAL INTELLIGENCE
- LOVE & HAPPINESS
- ANGER AND FEAR
- STRESS

#### IV. RELATING TO OTHERS:

- EMPATHY
- FRIENDSHIP
- LEADERSHIP
- INTERPERSONAL RELATIONSHIP

APS College of Arts & Science N.R. Colony, Bangalore-560 019

Head of the Department of Psychology APS College of Arts & Science N. R. Colony, Bengaluru - 560 019

### LIST OF STUDENTS ENROLLED FOR VALUE ADDED COURSE

	AND THE OF THE CELLIDENIE	COURSE &	REGISTER
SL. NO.	NAME OF THE STUDENT	COMBINATION	NUMBER
1	SATHYA Y	IV SEM, BA/SEPsy	A2010019
2	VIKRAM C	IV SEM, BA/SEPsy	A2010023
3	NEERAJA R	IV SEM, BA/SEPsy	A2010012
4	PINKY KUMARI R	IV SEM, BA/SEPsy	A2010014
5	NEHA R	IV SEM, BA/SEPsy	A2010013
6	VINUTHA M	IV SEM, BA/SEPsy	A2010025
7	HEMALATHA K H	IV SEM, BA/SEPsy	A2010009
8	SHANDY THOMAS	IV SEM, BA/SEPsy	A2010020
9	SUNIL KUMAR R	IV SEM, BA/SEPsy	A2010022
10	PRAVEEN K R	IV SEM, BA/SEPsy	A2010015
11	DEEKSHITH RAJU R	IV SEM, BA/SEPsy	A2010007
12	NAMRATHA S	IV SEM, BA/SEPsy	A2010011
13	CHARAN K	IV SEM, BA/SEPsy	A2010005
14	ROHIT S	IV SEM, BA/SEPsy	A2010017
15	CHANDRA SHEKAR S	IV SEM, BA/SEPsy	A2010004

SIGNATURE OF COURSE CO-ORDINATOR

APS College of Arts & Science N.R. Colony, Bangalore-560 01:



# ACHARYA PATHASALA COLLEGE OF ARTS AND SCIENCE NARASIMHARAJA COLONY, BENGALURU-560019

Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com
Telephone: 080-26603192

AFFILIATED TO BENGALURU CITY UNIVERSITY NAAC ACCREDITED - B+ GRADE

### REPORT ON VALUE ADDED COURSE

Department of Psychology conducted a Value added Course on PSYCHOLOGY AND LIFE for students of Psychology who were in the II year B.A., IV semester. Brochure was given to students after which they registered for the course.

The objective of the course was to widen the knowledge and equip students in interpersonal and intrapersonal relationships. The syllabus of the Value added Course included concepts related to the cognitive aspects such as self-awareness, communication & thinking, emotions.

Dr. B. Jayashree, Principal, APSAS, inaugurated the course on 3<sup>rd</sup> of August 2022. A weekly class with duration of two hours was taken on every Wednesday, from 3.30 pm to 5.30 pm by the faculty Harshitha S. The teaching and learning strategies included the interactive classroom sessions and group discussions. The total number of hours was 30. Certificates were given to students who successfully completed the course with more than 75% attendance and attended the test at the end of the course. The grading system followed as below.

GRADES	MARKS
O (OUTSTANDING)	80-100
A (EXCELLENT)	70-79
B (GOOD)	55-69
C (AVERAGE)	40-54

About 15 students enrolled for the value added course.

#### The outcome of the course:

- 1. The students felt more grounded, confident and efficient and able to manage their emotions.
- 2. Improved communication and built positive relationship.

COURSE COORDINATOR SIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore-560 019,







COURSE COORDINATOR SIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore-560 019



# A P S COLLEGE OF ARTS AND SCIENCE NARASIMHARAJA COLONY, BANGALORE - 560 019

# REGISTRATION FORM FOR VALUE ADDED COURSE

2021-2022

COURSE NAME: Psychology and life COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Psychologyand life
APPLICATION NO:	01

Sathyan
2010812002
II year BA [SEPSY]
A2010019
H. Yallappa
Lt. Meghala
#57 D'Souza Gorden Te Road Bangailore North - 560002
7892679496 Sathyasathya45228@gmail.com
7200009258
A.P. s collège of Ants & science
Course
Carry

CANDIDATE'SSIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore-560 048



# A P S COLLEGE OF ARTS AND SCIENCE NARASIMHARAJA COLONY, BANGALORE - 560 019

### REGISTRATION FORM FOR VALUE ADDED COURSE 2021-2022

COURSE NAME: Psychology & life

COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Psychology and life
APPLICATION NO:	02

NAME	Vikran Kumar C
DATE OF BIRTH	20/01/1999
CLASS	Tyear B.A. [SEPSy]
REG. NO.	A2010023
FATHER'S NAME	Changpalal
MOTHER'S NAME	Bhagu
RESIDENTIAL ADDRESS	# 20 Main Road I Feross Raghava Adra Layou & Madawala, Near Sille Bourd, Bangaloll - 560568
MOBILE NO. & E-MAIL ID OF CANDIDATE	7338009558 Vikramshinollal@1999@gmail.com
PARENT'S CONTACT NO.	9341107773
NAME OF COLLEGE/INSTITUTION	Acharya Patashala College of Auto and Science, N. 12. Wony.
COORDINATOR(S) SIGNATURE	Condu
FACULTY INCHARGE SIGNATURE	Conste

CANDIDATE'S SIGNATURE

APS College of Arts & Science



# A P S COLLEGE OF ARTS AND SCIENCE NARASIMHARAJA COLONY, BANGALORE - 560 019

# REGISTRATION FORM FOR VALUE ADDED COURSE

2021 - 2022

COURSE NAME: Psychology and type COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Psychology and life
APPLICATION NO:	0.3

NAME	Neeraja. R.
DATE OF BIRTH	29/04/2002
CLASS	II year BA[SEPS4]
REG. NO.	A2010012
FATHER'S NAME	2. c Rangappa.
MOTHER'S NAME	Mangula. R
RESIDENTIAL ADDRESS	-PPe bangalose 560085
MOBILE NO. & E-MAIL ID OF CANDIDATE	6366636300 Kughichandlek@gamil.com
PARENT'S CONTACT NO.	948/239256
NAME OF COLLEGE/INSTITUTION	A.P.3 callege of dods & scince.
COORDINATOR(S) SIGNATURE	Course O
FACULTY INCHARGE SIGNATURE	Doerdy
	/1

Meeroja R.
CANDIDATES SIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore-560 019.



# A P S COLLEGE OF ARTS AND SCIENCE NARASIMHARAJA COLONY, BANGALORE – 560 019

### REGISTRATION FORM FOR VALUE ADDED COURSE

2021-2022

COURSE NAME: Psychology COURSE CODE: and like

CERTIFICATE COURSE OPTED FOR

Psychology and life.

APPLICATION NO:

(WRITE IN BLOCK LETTERS)

04

NAME	Pinki kumovi-R
DATE OF BIRTH	13 - 05 - 2002
CLASS	I year B.A (SEPSY)
REG. NO.	A 20 100 14
FATHER'S NAME	Raju Sohani
MOTHER'S NAME	Kinon Devi
RESIDENTIAL ADDRESS	# 14. 4th main, 5th ( roy) Krishne Loyout Hulimerie B. G. Road Bongarore - S600-76
MOBILE NO. & E-MAIL ID OF CANDIDATE	89047H1300 Pinki Kumosii 6715@gmoil.com
PARENT'S CONTACT NO.	9632150 338
NAME OF COLLEGE/INSTITUTION	APS college of Ants and Science
COORDINATOR(S) SIGNATURE	Dourse
FACULTY INCHARGE SIGNATURE	Candy

Pinki kumori-R CANDIDATE'SSIGNATURE

PRINCIPAL 418/22

APS College of Arts & Science N.R. Colony, Bangalore-560 019



#### REGISTRATION FORM FOR VALUE ADDED COURSE 2021-2022

COURSE NAME: Psychology & left
COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Psychology	and	life
APPLICATION NO:	05		U

NAME	Neha. R		
DATE OF BIRTH	01/03/2002		
CLASS	II year BA (SEPSY)		
REG. NO.	A2010013		
FATHER'S NAME	Roupchand Pandlet		
MOTHER'S NAME	Susherler.		
RESIDENTIAL ADDRESS	ndir. Tunple Horinagers. Anjanapura. Bangaluru karnalak		
MOBILE NO. & E-MAIL ID OF CANDIDATE	8147853920 Pandith weba 4@gmail.com		
PARENT'S CONTACT NO.	8147853920 810888 474		
NAME OF COLLEGE/INSTITUTION	A.P.S collège & Aorts &		
COORDINATOR(S) SIGNATURE	Jameles		
FACULTY INCHARGE SIGNATURE	Carlos		

CANDIDATE'S SIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore-560 019



### REGISTRATION FORM FOR VALUE ADDED COURSE

COURSE NAME: Psychology &

فر <u>ا 2021-2022</u>

COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)

APPLICATION NO:

O6

NAME	Vinotha.M
DATE OF BIRTH	06/02/2002.
CLASS	Indyean BA SEPRY
REG. NO.	A2010025
FATHER'S NAME	Mangkanta.c
MOTHER'S NAME	Mangula.M.
RESIDENTIAL ADDRESS	# 620 Konanerbude Angara -purio mosn Juscod Ranglow \$60062
MOBILE NO. & E-MAIL ID OF CANDIDATE	6362887509 V?ruo447@gmail.com
PARENT'S CONTACT NO.	6362887509.
NAME OF COLLEGE/INSTITUTION	APS collège of Art & Scrence
COORDINATOR(S) SIGNATURE	Doubly
FACULTY INCHARGE SIGNATURE	Country

CANDIDATE'S SIGNATURE

PRINCIPAL 418/22

APS College of Arts & Science N.R. Colony, Bangalore-560 019.



# REGISTRATION FORM FOR VALUE ADDED COURSE

2021-2022

COURSE NAME: Psychology and life COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	PSYCHOLOGY	AND	LIFE	
APPLICATION NO:	77			

NAME	HEMALATHA. K. H
DATE OF BIRTH	23/09/2000
CLASS	I year BA (SEPSY)
REG. NO.	A2010009
FATHER'S NAME	NAGRAJA
MOTHER'S NAME	SHARADHA
RESIDENTIAL ADDRESS	## 49/A, Near Abbaich Naidu / tudio Chi Kkalpandra Bangalore South Bangalore -51006/
MOBILE NO. & E-MAIL ID OF CANDIDATE	9535 399145 Thema 6423@gmail.com
PARENT'S CONTACT NO.	6363893793
NAME OF COLLEGE/INSTITUTION	A.P. S COLLEGE OF ARTS AND SCIENCE
COORDINATOR(S) SIGNATURE	Coardin
FACULTY INCHARGE SIGNATURE	Country

CANDIDATE'S SIGNATURE

N.R. Colony, Bangalore-560 01-



## REGISTRATION FORM FOR VALUE ADDED COURSE

COURSE NAME: Psychology and life
COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	PSYCHOLOGY & LISE
APPLICATION NO:	08

NAME	Shandy Thomas		
DATE OF BIRTH	14/7/2000		
CLASS	TT year B.A		
REG. NO.	A2010020		
FATHER'S NAME	Shaji Thomas		
MOTHER'S NAME	Annie shaji		
RESIDENTIAL ADDRESS	Shaji villa, fisiends layout, kothanni Dinne, J.P. Nagas, 8th Phase. Bangalor. 560078		
MOBILE NO. & E-MAIL ID OF CANDIDATE	6362768537 Sharoly thomas 147@ gmail. com		
PARENT'S CONTACT NO.	6360174625		
NAME OF COLLEGE/INSTITUTION	APS college of Arts and science		
COORDINATOR(S) SIGNATURE	Downson.		
FACULTY INCHARGE SIGNATURE	Plante		

Standly CANDIDATE'S SIGNATURE

N.R. Colony, Bangalore-560 019



# REGISTRATION FORM FOR VALUE ADDED COURSE

2021-2022

COURSE NAME: Psychology and life COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Psychology and life
APPLICATION NO:	09

NAME	Sund Kunar R
DATE OF BIRTH	19/06/1998
CLASS	II rd year BA SEPSY
REG. NO.	A2010022
FATHER'S NAME	forjanna. K
MOTHER'S NAME	Roopa. C
RESIDENTIAL ADDRESS	# 20 2nd cross utterrabelle Bengalore 560050
MOBILE NO. & E-MAIL ID OF CANDIDATE	960650 HHO3 Sunifoleronaballi. (234@gmil.6
PARENT'S CONTACT NO.	9606504403
NAME OF COLLEGE/INSTITUTION	APS college of arts and Science.
COORDINATOR(S) SIGNATURE	Control
FACULTY INCHARGE SIGNATURE	Costo

CANDIDATE'S SIGNATURE

APS College of Arts & Sci N.R. Colony, Bangalore-560 01



# REGISTRATION FORM FOR VALUE ADDED COURSE

2021-2022

COURSE NAME: Psychology and life

**COURSE CODE:** 

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	PSYCHOLOGY AND LIFE
APPLICATION NO:	10

NAME	Praveen. K.P.		
DATE OF BIRTH	15.04.2003.		
CLASS	Tind year. B.A. SEPSY.		
REG. NO.	A2010015		
FATHER'S NAME	PAUI		
MOTHER'S NAME	PAUITHRA.		
RESIDENTIAL ADDRESS	# 1909. 17th cross. Pipline swad. Kalidaja Circle. Entragar. Bangalote 560050.		
MOBILE NO. & E-MAIL ID OF CANDIDATE	9901441630 Keep9475@ gonail. Com.		
PARENT'S CONTACT NO.	6361778901.		
NAME OF COLLEGE/INSTITUTION	APS college of Aute and Science.		
COORDINATOR(S) SIGNATURE	Quantu		
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APS College of Arts & Science N.R. Colony, Bangalore-560 010



# REGISTRATION FORM FOR VALUE ADDED COURSE

2021-2022

COURSE CODE:

COURSE NAME: Psychology and life

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Psychology	ANDLIFE	
APPLICATION NO:	11		

NAME	Deekshith. Raju-R
DATE OF BIRTH	15.09.2001
CLASS	II ad year B.A. SEPSY
REG. NO.	A2010007
FATHER'S NAME	Ranish L
MOTHER'S NAME	Dakshayini K.s.
RESIDENTIAL ADDRESS	#1700 Bsk 18+ Stage 2nd Block. 6th Goss, Smalvasanagana B, lone-S60050.
MOBILE NO. & E-MAIL ID OF CANDIDATE	8884717285. Rejugowela 7178 Ognail. Com
PARENT'S CONTACT NO.	
NAME OF COLLEGE/INSTITUTION	A.P.s college of Arts and 9 cien Ce
COORDINATOR(S) SIGNATURE	Dovalu
FACULTY INCHARGE SIGNATURE	Down

CANDIDATE'S SIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore-560 of



# REGISTRATION FORM FOR VALUE ADDED COURSE

2021 - 2022

COURSE NAME: Psychology and life COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)

APPLICATION NO:

Psychology and life

NAME	NAMRATHA - S
DATE OF BIRTH	20/02/1998
CLASS	I year. B.A (SEPSY).
REG. NO.	A2010011
FATHER'S NAME	Sub b argin
MOTHER'S NAME	Pushporqu
RESIDENTIAL ADDRESS	#14, 18th Cross, Anouthahalli, Shakar Nagar Bongalole-560092.
MOBILE NO. & E-MAIL ID OF CANDIDATE	9036845998 Nomatha 5662 @graftCom.
PARENT'S CONTACT NO.	9342074559
NAME OF COLLEGE/INSTITUTION	Achaya Patashala College of cits and Science, NR Colony.
COORDINATOR(S) SIGNATURE	Danbley
FACULTY INCHARGE SIGNATURE	Constay

CANDIDATE'S SIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore, Sen 61



# REGISTRATION FORM FOR VALUE ADDED COURSE

2021-2022

COURSE NAME: Psychology and life

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	PSYCHOLOGY AND LIFE
APPLICATION NO:	13

NAME	CHARAN IC
DATE OF BIRTH	24-10-1999
CLASS	2nd year BA (SEPSY)
REG. NO.	A2010005
FATHER'S NAME	KRISHNAPPA
MOTHER'S NAME	MANJULA
RESIDENTIAL ADDRESS	# 7 10th cross 4th main Burchward nagar churchagatta main Youd Konandwill Poet Bangalore-50000
MOBILE NO. & E-MAIL ID OF CANDIDATE	8197130924 charankoo33@gmail.com
PARENT'S CONTACT NO.	8660276037
NAME OF COLLEGE/INSTITUTION	APS COLLEGE OF ARTS AND SCIENCE.
COORDINATOR(S) SIGNATURE	Courses
FACULTY INCHARGE SIGNATURE	Course

Charan. 16 CANDIDATE'S SIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore-560 or



#### REGISTRATION FORM FOR VALUE ADDED COURSE

OURSE NAME: Psychology an	0
CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	PSHYCHOLOGY & LIFE
APPLICATION NO:	14
NAME	Pohit Gumar.
DATE OF BIRTH	05/02/2003
CLASS	II dear BA 2 nd Seny
REG. NO.	A2010017
FATHER'S NAME	Bron Clas B.M
MOTHER'S NAME	Sujatha ?
RESIDENTIAL ADDRESS	holongla (7) Jogan (4)
MOBILE NO. & E-MAIL ID OF CANDIDATE	roh Houppirch Huppita your
PARENT'S CONTACT NO.	8970780893
NAME OF COLLEGE/INSTITUTION	Acharya patashala O College of Arts & Scene
COORDINATOR(S) SIGNATURE	Carly O
FACULTY INCHARGE SIGNATURE	Generalis
MAS.	

CANDIDATE'S SIGNATURE

PRINCIPAL PH

APS College of Arts & Science N.R. Colony, France



# REGISTRATION FORM FOR VALUE ADDED COURSE

COURSE NAME: Psychology and life

COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	CHADRA SHEKARS
APPLICATION NO:	15

Chandrashekaes
19.05.2000
ILB.A (SERRY)
A2010004
Sziram.
Kanthanma
#3, dhobighet near devegoroda petrol. bunk, Bsk. 2 ndstage, 81/w
885/842878 8irichandusixi79@gmail.com.
8861842878
ARS College or Art Eysermen
Peerslu
Carly

CANDIDATE'SSIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore-560 019.

Time

2:30 - 4:30

SLNO	Student Name	Ségnature of the student.
1	Priya k.D	P.
2.	Porathiba R	Or seption (x)
3.	Meghana. A	Medi
4.	BR Shuce Lakshmi	Bashreelakihny'
5	Jyothika Gr	Sypotette
6.	Tegas wint om	Tejaswini.M
40	Amen tho. M	Arablo
8.	Harshitha D.	Harshithus D
9.	Hendatha P	Feene
(0	Mohammed Ajon	Lypa
11	Neha, G. Kulkari	N.G. Kul
12.	Vaishear to	<u></u>
13.	S. Adithya	SAdisthya
14.	Yogush .M	logues s



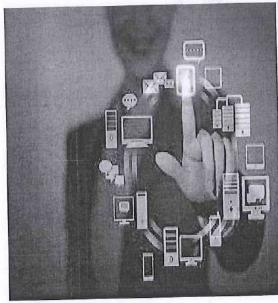
# Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore –560 019.

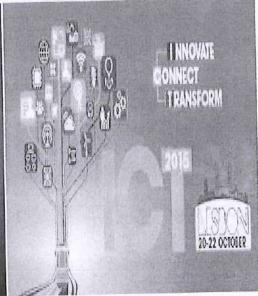
Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com











# TECHNICAL SKILL DEVELOPMENT

ON

ICT TOOLS

Head of the Dept. of Computer Science
APS COLLEGE OF APTER OF

PRINCIPAL 1 23
APS College of Arts & Science
N.R. Colony, Bangalore-560 019

# TECHNICAL SKILL DEVELOPMENT

### ON

# ICT TOOLS

# VALUE ADDED COURSE

# **COURSE DETAILS 2022-2023**

DEPARTMENT

: DEPARTMENT OF COMPUTER SCIENCE

NAME OF THE COURSE

CO-ORDINATOR

: SATYASHREE

MOBILE NO

: 9448768634

**EMAIL ID** 

: cshodaps@gmail.com

NAME OF THE COURSE

: VALUE ADDED

NO. OF HOURS

: 30 HOURS

VENUE

: A P S COLLEGE OF ARTS AND SCIENCE

DAYS AND TIMINGS

: WEDNESDAY 2.30 TO 4.30 PM

COMMENCEMENT DATE : 1/08/2022

AND FINISH DATE

: 06/01/2023

Head of the Dept. of Computer Prience APS COLLEGE OF ADITUAL LINES N.R. Colony, Bangalore-560 019.

#### SCHEME OF EVALUATION

Pre-requisites: Students currently pursuing Bachelors Degree Course in Computer Applications.

Objectives of the Course: The value added course "TECHNICAL SKILL DEVELOPMENT ON ICT TOOLS" aim

Teaching/Learning Strategies: Presentations, Practically running programs, Assignments.

#### **Evaluation Method:**

- Students Enrolling are required to attend all the theory and practical sessions.
- 75% attendance is compulsory and 100% submission of all assignments.

#### **Grading System Followed**

Grade	Marks	
A+	100-90	Outstanding
A	89-80	Excellence
B+	79-70	Very Good
В	69-60	Good
C	59-50	Satisfactory

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APS College of Arts & Science N.R. Colony, Bangalore-560 019.

Head of the Dept. of Computer Science APS COLLEGE OF ARTA

# Syllabus

Slno	Topic Covered	Number of Hours
1	Creating Google	5 Hours/Week
	Forms	Theory and Practicals
2	Scheduling Google	5 Hours/Week
	Meet	Theory and Practicals
3	Screen Sharing and	5 Hours/Week
	presenting	Theory and Practicals
4	Generation of	5 Hours/Week
	online Certificates	Theory and Practicals.
	using Add-ons	Him is the Heart of
5	Finding the	5 Hours/Week
	responses	Theory and Practicals.
6	Creating Quiz	3 Hours/Week
	questions	Theory and Practicals
7	Adding Images	2 Hours/Week
		Theory and Practicals.

Head of the Dept. of Computer Science

APS COLLEGE OF APT

PRINCIPAL 4 8/22

APS College of Arts & Science

N.R. Colony, Bangalore 560 019,

#### Outcomes

• Interactive White Boards or Smart Boards: Interactive White Boards are used when the user wants to project his/her files present in the computer on a large screen. It allows the user to manipulate and discuss in a large gathering.

Eg: 2 or more students working different math problems on the board and the user can control them through the computer and also access the internet simultaneously.

The technology behind interactive whiteboards varies between large format screens with a standalone system on a chip (SOC) and combinations of video projectors or smart projectors that use a tablet or other devices with drivers for user interaction. Forms of operation are often either by infrared or resistive touch, magnetic or ultrasonic pen. As writing and character recognition is generally digitized, keyboards can be almost completely unnecessary. Interactive whiteboard software often includes easy-to-use charts, polls and graphs, including virtual versions of tools one might find in a classroom like rulers compasses or protractors. They can play various types of media and provide teachers with interactive lessons for their students.

• E-readers:

An e-reader, also called an e-book reader or e-book device, is a mobile electronic device that is designed primarily for the purpose of reading digital e-books and periodicals.

Eg: Amazon's Kindle Keyboard

• Flipped Classrooms:

A flipped classroom is structured around the idea that lecture or direct instruction is not the best use of class time. Instead students encounter information before class, freeing class time for activities that involve higher order thinking.

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Head of the Dept. of Computer Science
APS COLLEGE OF ACCOUNTS

APS College of Arts & Science N.R. Colony, Bangalore-560 019,



#### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSE NAME: Technical Skill Development on ICT Tool

COURSE CODE: TSDITOI

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	TECHNICAL SKILL DEVELOPMENT ON	
APPLICATION NO:	01	

	n)
NAME	SUMANTH.D.N
DATE OF BIRTH	27-11-2001
CLASS	BCA Ind year.
REG. NO.	R2010023
FATHER NAME	Nagaraju. D. M
MOTHER NAME	cnandrakala. K. S
RESIDENTIAL ADDRESS	#69/6, 1st main, 1st cross, Paper Krishnappa Compound, Annoyyappa geaden, Jouraganahalli J. P. Nagas 6th phase, Bangalore - 560075
MOBILE NO. & E-MAIL OF CANDIDATE	8884656650 Suman Sumanth 744 @gmail. Com
PARENT'S CONTACT NO.	7996903844
NAME OF COLLEGE/INSTITUTION	APS College of Arts and Science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	

Semailh. D. N CANDIDATE'S SIGNATURE PRINCIPAL 1/8/22

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#### REGISTRATION FORM FOR CERTIFICATE COURSES

COURSE NAME: Technical 3021-2022 COURSE CODE: TSDITO1

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Value added Course
APPLICATION NO:	~ ot.

	0	
NAME	SHASHIREKHA.8	
DATE OF BIRTH	18/09/2002	
CLASS	and year BCA.	
REG. NO.	R2010020	
FATHER NAME	SHIVA KUMAR.	
MOTHER NAME .	DIVYA BHARATHI	
RESIDENTIAL ADDRESS	# 38 A' Nagendrablock 10 th Main Sornagard Bangalore - 56.	
MOBILE NO. & E-MAIL OF CANDIDATE	8088863642. Shasherhasherikha@gmall.com	
PARENT'S CONTACT NO.	9663650880	
NAME OF COLLEGE/INSTITUTION	APS COLLEGE OF ARTS AND SCIENCE	
COORDINATOR(S) SIGNATURE		
FACULTY INCHARGE SIGNATURE		

CANDIDATE'S SIGNATURE

PRINCIPAL APS College of Arts & Science N.R. Colony, Bangalore-560 019



#### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSENAME: Technical Skill Development on ICT Tools

COURSE CODE: TSDTIOI

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical Skill development on ICT Tool VALUE ADDED COURSE
APPLICATION NO:	-02

	ρ
NAME	CHANDAN S
DATE OF BIRTH	06 - 03 - 2003
CLASS	and year BCA IV Sem
REG. NO.	R2010001
FATHER NAME	Late Subramanya
MOTHER NAME .	Seethamma
RESIDENTIAL ADDRESS	#42, 1 <sup>st</sup> main road, Adugodi, Koramangala main hoad, Banga -lore - 560030
MOBILE NO. & E-MAIL OF CANDIDATE	9620440595 Chandansbla07 Qgmail.com
PARENT'S CONTACT NO.	7204628931
NAME OF COLLEGE/INSTITUTION	APS college of wite and science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	

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CANDIDATE'S SIGNATURE

PRINCIPAL APS College of Arts & Salar

N.R. Colony, Bangalore-560 019,



#### REGISTRATION FORM FOR CERTIFICATE COURSES

COURSE NAME: Technical still Revelopment on 1CT Tool

COURSE CODE: TSD I TO 1

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical (Kill Oberclopment on ICT Too)
APPLICATION NO:	03

	O .
NAME	Shashanka. K
DATE OF BIRTH	22-06-2000
CLASS	BCA - Ind years
REG. NO.	R2010019
FATHER NAME	Kumara B
MOTHER NAME .	ROOPA.P
RESIDENTIAL ADDRESS	No. 131, 30 od main, 30 od a cross, Chonnammana Rose achikatty, BSK- Wood etage, Beingalore-85
MOBILE NO. & E-MAIL OF CANDIDATE	9740475983 shashanka 47261@g mail.com
PARENT'S CONTACT NO.	9611730675
NAME OF COLLEGE/INSTITUTION	APS Collège of dects &
COORDINATOR(S) SIGNATURE	•
FACULTY INCHARGE SIGNATURE	

Shaghanker, R CANDIDATE'S SIGNATURE N.R. Colony, Bangatore-560 019,



#### REGISTRATION FORM FOR CERTIFICATE COURSES 2021 - 2022

COURSENAME: Technical Skill Development on ICT Toll

COURSE CODE : TEDIT OL

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical (Kill derelopmenent skill)
APPLICATION NO:	04

NAME	Vasum. R
DATE OF BIRTH	18/12/2002
CLASS	
REG. NO.	R2010027
FATHER NAME	Ramanaik. A
MOTHER NAME .	Rohmini pai
RESIDENTIAL ADDRESS	Kanakapudia main Road, Thalgetpudia Post#2, Chandrashakedi building Neadi D-Madit Vajorhalli Bangalore-68
MOBILE NO. & E-MAIL OF CANDIDATE	9980318147 Vnaik 1396@gmail-Com
PARENT'S CONTACT NO.	8861101540
NAME OF COLLEGE/INSTITUTION	APB College of Asits And Science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	

Harun D

CANDIDATE'S SIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore-560 019,



#### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSENAME: Technical skill development on ICT Tool

COURSE CODE : TS DIT OF

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical PKIII development on ICT TOO!
APPLICATION NO:	05

NAME	Neha. G. Kelkarni
DATE OF BIRTH	12/3/2002
CLASS	TV Son BCA
REG. NO.	R2010013
FATHER NAME	Govind. S. Kulkarni
MOTHER NAME .	Mallika, G. Kulkarni
RESIDENTIAL ADDRESS	11th main harumanth nagar bonglore
MOBILE NO. & E-MAIL OF CANDIDATE	8277630297 Nehag Kulkarni 1203@gmail.com
PARENT'S CONTACT NO.	9449696890
NAME OF COLLEGE/INSTITUTION	A. P.S college of Arits & science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	
	1

. NeG. Kuli

CANDIDATE'S SIGNATURE

N.R. Colony, Bangalore-560 019,



## REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSE NAME: Technical Skill Development on Ict Tool

COURSE CODE : TSDIT OI.

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical skill	development on Zet too
APPLICATION NO:	06	

NAME	Anitha.P	
DATE OF BIRTH	03 - 06 - 2003	
CLASS	4th SEM (IT Year BCA)	
REG. NO.	R 2010006	
FATHER NAME	Puttaswamy	
MOTHER NAME .	Seddamma.	
RESIDENTIAL ADDRESS	#872, 13th MAIN, 4TH CROSS, Bank colony, Srinival nagar, Bengaluru.	
MOBILE NO. & E-MAIL OF CANDIDATE	812326 8784 Anithap 0305@gmail.	
PARENT'S CONTACT NO.	9844099876	
NAME OF COLLEGE/INSTITUTION	APS college of Art and Science	
COORDINATOR(S) SIGNATURE		
FACULTY INCHARGE SIGNATURE		

Aribot

CANDIDATE'S SIGNATURE

N.R. Colony, Bangalore-560 019,



#### REGISTRATION FORM FOR CERTIFICATE COURSES 2021-2022

COURSE NAME: COURSE CODE:

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	TECHNICAL SKILL DEVELOPMENT
APPLICATION NO:	0 7

	0		
NAME	TEJASWINI OM		
DATE OF BIRTH	31-03-2002		
CLASS	4th sem BCA		
REG. NO.	R 20 10 0 2 4		
FATHER NAME	MARASAYYA.C		
MOTHER NAME .	GEETHA · N		
RESIDENTIAL ADDRESS	GANTAKANA DODDI, KAGGALAHALLI (P), HAROHALLI (H), KANAKPURA MAIN ROAD, BANGALORE		
MOBILE NO. & E-MAIL OF CANDIDATE	8904690431 tefu shelly 3103@g mail . com .		
PARENT'S CONTACT NO.	8660550599		
NAME OF COLLEGE/INSTITUTION	APS COLLEGE OF ARTS & SCIENCE		
COORDINATOR(S) SIGNATURE			
FACULTY INCHARGE SIGNATURE			

CANDIDATE'S SIGNATURE

PRINCIPAL

APS College of Arts & Science N.R. Colony, Bangalore-560 019,



# $\frac{\text{REGISTRATION FORM FOR CERTIFICATE COURSES}}{2021-2022}$

COURSENAME: Technical SKill Development on ICT Tool

COURSE CODE: TSDIT64

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technocal Skell Development on ICT Tool
APPLICATION NO:	08

	P	
NAME	Parathiba R'	
DATE OF BIRTH	17/10/2001	
CLASS	Tryean Tu Sem BCA	
REG. NO.	R2010015	
FATHER NAME	Rajend na . N.	
MOTHER NAME .	Leelavathi S.	
RESIDENTIAL ADDRESS	#29 Tata Silk tomm Basavana gudi Bangalom - 04.	
MOBILE NO. & E-MAIL OF CANDIDATE	7019467054 Parathiba 67054@gmail.com	
PARENT'S CONTACT NO.	9886611090	
NAME OF COLLEGE/INSTITUTION	Sps College of Asits And Science	
COORDINATOR(S) SIGNATURE		
FACULTY INCHARGE SIGNATURE		

CANDIDATE'S SIGNATURE

PRINCIPAL
APS College of Arts & Science
N.R. Colony, Bangalore-560 019,



#### REGISTRATION FORM FOR CERTIFICATE COURSES

COURSENAME: Technical spill Development on Io Tool.

COURSE CODE : TS DI TOI

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical (Kili development on
APPLICATION NO:	09

P.		
Priya k.D.		
08/05/2003		
2 year BCA		
R2010016		
Dharmaraju k		
chandrakala		
#15 Blooss 7thmain 7th Block Pordmanabnagar Bsk 3rd stage Bornglore - 560085		
886 1565203 Polyacd2003@gmail.com.		
Aps college of Arts & science		

CANDIDATE'S SIGNATURE

PRINCIPAL

APS College of Arts & Science N.R. Colony, Bangalore-560 019,



#### REGISTRATION FORM FOR CERTIFICATE COURSES 2021-2022

COURSENAME: Technical skill Development on ICT Tool.

COURSE CODE : T3DITO1

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical skell development on ICT Tool
APPLICATION NO:	10

	r c		
NAME	MEGHANA, A.		
DATE OF BIRTH	31-10-2002		
CLASS	I Year IV Sem BCA.		
REG. NO.	R2010011		
FATHER NAME	R. ANANTH KUMAR		
MOTHER NAME .	G. WALINI		
RESIDENTIAL ADDRESS	No.3, S.L.V NILAYA, RAMRAO LAYOUT, KATHRIQUPPE, BANGLORE - 560085		
MOBILE NO. & E-MAIL OF CANDIDATE	MOBILE No.: 9739448873 E-MAIL: meghana 2002abhi@gmail.c		
PARENT'S CONTACT NO.	9902524386		
NAME OF COLLEGE/INSTITUTION	APS COLLEGE OF ARTS AND SCIENCE.		
COORDINATOR(S) SIGNATURE			
FACULTY INCHARGE SIGNATURE			

CANDIDATE'S SIGNATURE

APS College of Arts & Science N.R. Colony, Bangalore-560 019,



# REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSE NAME: Technical Skill Development on ICT Tool COURSE CODE: TSDIT 101

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Techniqual (KII development on ICT Tool.
APPLICATION NO:	11

	•	
NAME	5. Adithya	
DATE OF BIRTH	10-08-2001	
CLASS	IV Sem BCA	
REG. NO.	R2010017	
FATHER NAME	S. Anantha Mohan	
MOTHER NAME .	S. Annapouna	
RESIDENTIAL ADDRESS	#598, Brashanthi, 7th cron, 15th Main, Exi Ramanjaneya Pood Brina gar Renglow - 560050	
MOBILE NO. & E-MAIL OF CANDIDATE	6363203831 aanavahamonan 89 agmail Com	
PARENT'S CONTACT NO.	8310017922	
NAME OF COLLEGE/INSTITUTION	APS Collège & Audo & Science	
COORDINATOR(S) SIGNATURE		
FACULTY INCHARGE SIGNATURE		

CANDIDATE'S SIGNATURE

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#### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSE NAME: Technical Skill Development on ICT TOOL

COURSE CODE : TSDITOI

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	VAISHNAVI K.V	/ VALUE	ADDED	COURSE
APPLICATION NO:	12			

	ρ	
NAME	MAISHNAI K.V	
DATE OF BIRTH	27 10912002	
CLASS	II nd year BCA	
REG. NO.	R2010026	
FATHER NAME	VEERAPATE USP KIM	
MOTHER NAME .	VEENA.	
RESIDENTIAL ADDRESS	#21 Matavalli IIT", Mandya 11011 Kaggala	
MOBILE NO. & E-MAIL OF CANDIDATE	9353487228 /8970358381 Vaishnan lavasto @gmail.com	
PARENT'S CONTACT NO.	9980 43 +22 3	
NAME OF COLLEGE/INSTITUTION	Aps college of -Arts and Science	
COORDINATOR(S) SIGNATURE		
FACULTY INCHARGE SIGNATURE		

Vaithnavi K.v

**CANDIDATE'S SIGNATURE** 

PRINCIPAL 18/22

APS College of Arts & Science N.R. Colony, Bangalore-560 019



#### REGISTRATION FORM FOR CERTIFICATE COURSES 2021-2022

COURSENAME: Technical Skell Development on ICT TOOL COURSE CODE : TS DITO

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical skill development on Scr to VALUE ADDED COURSE
APPLICATION NO:	13

NAME	HEMALPTHA .P
DATE OF BIRTH	23/12/2002
CLASS	IIndyean B. C.A
REG. NO.	R20 10009
FATHER NAME	PRAKASH SM
MOTHER NAME .	Mantus
RESIDENTIAL ADDRESS	#126, 200d, coross, magad; eroad, Cholumpalya, near ganesha temble Dengalum - 56 0023
MOBILE NO. & E-MAIL OF CANDIDATE	\$296193253 phenalathassa@gmail.com
PARENT'S CONTACT NO.	9731653438
NAME OF COLLEGE/INSTITUTION	APS collège of auts & science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	

CANDIDATE'S SIGNATURE

APS College of Arts & Science

N.R. Colony, Bangalore-560 019,



# REGISTRATION FORM FOR CERTIFICATE COURSES 2021–2022

COURSE NAME: Technical Skill Development on ICT Tool

COURSE CODE : TSDIT OL

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical skill development on IET 7001
APPLICATION NO:	14

NAME	YOGIESH M
DATE OF BIRTH	26 March 2000
CLASS	and year with sem BCA
REG. NO.	R2010029
FATHER NAME	Madesh . S
MOTHER NAME	Crowsi M
RESIDENTIAL ADDRESS	#501. Dodderamappa building. CrPR Layout. Hale chandapura Bengaluru - 560099
MOBILE NO. & E-MAIL OF CANDIDATE	6360461291 akash, Yogesh 2014 Qgmall. Com
PARENT'S CONTACT NO.	740 6851210
NAME OF COLLEGE/INSTITUTION	APS college of Arhs & Science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	

CANDIDATE'S SIGNATURE

PRINCIPAL

APS College of Arts & Science N.R. Colony, Bangalore-560 019.



## REGISTRATION FORM FOR CERTIFICATE COURSES

2021 - 2022

COURSE NAME:

Technical

skill Development on ICT Tool

COURSE CODE:

TS DIT 01

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical	Skell	development on ICI Tool
APPLICATION NO:		15	

NAME	Santhosh . R
DATE OF BIRTH	09/10/2003
CLASS	III'd sem 2 year BCA.
REG. NO.	R2010018
FATHER NAME	Rajarathinam . k
MOTHER NAME .	Meena R
RESIDENTIAL ADDRESS	#9th cross Road Dattatre ya Nagari Hoskorehalli , BSK 3RD stage Bangalore 5600 85.
MOBILE NO. & E-MAIL OF CANDIDATE	86 10 48 2602 Santhosh kuman 86 10 48 2602 agmail-com.
PARENT'S CONTACT NO.	861048 2602
NAME OF COLLEGE/INSTITUTION	Aps college of ARTS and science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	

Santhosh.

CANDIDATE'S SIGNATURE

PRINCIPAL PRINCIPAL

APS College of Arts & Science N.R. Colony, Sasigalore-560 015,



#### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSENAME: Technical skell perelopment on ICT Total

COURSE CODE: TSDIT 01

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	TECHNICAL SKILL DEVELOPMENT ON
APPLICATION NO:	16

	e.
NAME	Mohammed Ayan YM
DATE OF BIRTH	16/09/2001
CLASS	TI year BCA 4th Sem
REG. NO.	132010012
FATHER NAME	Mohammed Mustay,
MOTHER NAME	Nowsheen
RESIDENTIAL ADDRESS	#13/9, bish main, bish cross, Mysel Road, Nayadahalli, New Mysel Road Metho station.
MOBILE NO. & E-MAIL OF CANDIDATE	4 mmchammedayon b72 @gmail.com
PARENT'S CONTACT NO.	9513814988
NAME OF COLLEGE/INSTITUTION	APS College of Agels & Science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	

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PRINCIPAL PRINCIPAL

APS College of Arts & Science N.R. Colony, Sangalore-560 019,



#### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSENAME: Technical skell development on ICT Tool

COURSE CODE: TSDIT OI.

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	TECHNICAL SKELL DEVELOPMENT ON JCT TOOL
APPLICATION NO:	17

	P
NAME	Jyothika. Gr
DATE OF BIRTH	10/4/2001
CLASS	4th sem BCA
REG. NO.	22010010
FATHER NAME	Govenda swarny.s
MOTHER NAME .	Suseela
RESIDENTIAL ADDRESS	#181, 35th main 4th cross Jp nagar 6th phase banglore. 78
MOBILE NO. & E-MAIL OF CANDIDATE	8152006943 Jyothi 636135@gmasl.com
PARENT'S CONTACT NO.	9901938399,
NAME OF COLLEGE/INSTITUTION	Aps collège of asts & scrence
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	

CANDIDATE'S SIGNATURE

PRINCIPAL 18/22

APS College of Arts & Science N.R. Colony, Sangalore-560 019,



#### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSE NAME: Technical Skill development on ICT tool

COURSE CODE: TS DIT 01

CERTIFICATE COURSE OPTED FOR	TECHNICAL SKILL DEVELOPMENT ON
(WRITE IN BLOCK LETTERS)	ICT TOOL
APPLICATION NO:	18

	P		
NAME	BR Swiee Lakshmi		
DATE OF BIRTH	11/10/2002		
CLASS			
REG. NO.	P 2010022		
FATHER NAME	BS Raghavendra		
MOTHER NAME .	BR Harini		
RESIDENTIAL ADDRESS	# 75,5th main, 6th vross, new sui hari Kalyana manteype, Hoyarala Nagala, BSK III <sup>rel</sup> stage, Bangalore-560085		
MOBILE NO. & E-MAIL OF CANDIDATE	9036125013 sweelekshnibbigamudre@gmail.com		
PARENT'S CONTACT NO.	9036125013		
NAME OF COLLEGE/INSTITUTION	APS Collège of Anti & Science		
COORDINATOR(S) SIGNATURE			
FACULTY INCHARGE SIGNATURE			

BRibellekihny

CANDIDATE'S SIGNATURE

Benja, 18/22 PRINCIPAL

APS College of Arts & Science N.R. Colony, Bangalore-560 019,



### REGISTRATION FORM FOR CERTIFICATE COURSES

2021 - 2022

COURSE NAME: Technical

skill development on s

on ICT took

COURSE CODE : TSDITOI

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)

Technical skill development on

APPLICATION NO:

19

	ρ
NAME	PRATWAL CIN
DATE OF BIRTH	21/4/2002
CLASS	II ned year BCA
REG. NO.	R8010014
FATHER NAME	NAGARATU.
MOTHER NAME .	Goudeamma
RESIDENTIAL ADDRESS	# 516,6th Ocoss, KSRTC layout, Ragigude Burglore
MOBILE NO. & E-MAIL OF CANDIDATE	953506549 9 Porigue at 55083 (2) Grand . Com
PARENT'S CONTACT NO.	9990553634
NAME OF COLLEGE/INSTITUTION	APS College of Sorts & Science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	

CANDIDATE'S SIGNATURE

PRINCIPAL 18/22



### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSENAME: Technical Skill Development on ICT Tools

COURSE CODE: TSD 2101

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical Skill Development on ICT Tools
APPLICATION NO:	20.

	e e
NAME	Harshitha . D.
DATE OF BIRTH	11/07/2002
CLASS	Ind Year, 4th Sem BCA
REG. NO.	R2010008
FATHER NAME	V.B. Dwarakeesha
MOTHER NAME .	H.N. Vasanthalakshmi
RESIDENTIAL ADDRESS	#37/2, 1st Main, 1st Cross, BTM 1st stage, Near Govt., Hospital Thavasekere, Bengalusu-560029
MOBILE NO. & E-MAIL OF CANDIDATE	8197044396 harshithashetty2002@gmail-Com
PARENT'S CONTACT NO.	7795103018
NAME OF COLLEGE/INSTITUTION	APS College of Axts and Science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	
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CANDIDATE'S SIGNATURE

PRINCIPAL



### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSENAME: Technocal Skill Development on ICT Tool.

COURSE CODE : TSDITO!

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Pechnical Pool	SKEII	Development or	n Jer
APPLICATION NO:	21.			

	P
NAME	Amoutha. M
DATE OF BIRTH	03-09-2002
CLASS	4th Sem 'BCA'
REG. NO.	R2010005
FATHER NAME	Mahableshwar . U.K
MOTHER NAME .	Jyothi . M
RESIDENTIAL ADDRESS	#30, 19th chose, 16th main, Mahadeshwara Nogar, BTH Layout 2nd Stage, Banglose -560076
MOBILE NO. & E-MAIL OF CANDIDATE	9739807051 am sutham
PARENT'S CONTACT NO.	9886373896
NAME OF COLLEGE/INSTITUTION	A.P.S. College of Asts and
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	

Amerika Jan.

CANDIDATE'S SIGNATURE

PRINCIPAL 18/22



### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSENAME: technical shill development on JCT tools

COURSE CODE: TSDI TOI

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	TECHNICAL SKILL ICT TOOL	DEVELOPMENT	ON
APPLICATION NO:	22		

	ρ
NAME	Ajith kumar
DATE OF BIRTH	01-07-2002
CLASS	Ind year BCA 4th Sem
REG. NO.	R2010004
FATHER NAME	Haji Babu
MOTHER NAME .	Sharanamma
RESIDENTIAL ADDRESS	#19 Mahaganaputhi temple hoad Thanamma layout Billekhalli Bonglore 560076
MOBILE NO. & E-MAIL OF CANDIDATE	7899750731 a k 4993997@gmail.lom.
PARENT'S CONTACT NO.	9008970247
NAME OF COLLEGE/INSTITUTION	APS collège of Auts & science
COORDINATOR(S) SIGNATURE	
FACULTY INCHARGE SIGNATURE	
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CANDIDATE'S SIGNATURE

PRINCIPAL



### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSENAME: Technical Skill Development on ICT Tool

COURSE CODE : TSDITO

CERTIFICATE COURSE OPTED FOR (WRITE IN BLOCK LETTERS)	Technical SKIII Development on ICT. Tool.
APPLICATION NO:	23.

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NEHA V DESHPANDE
28-02-2000
VIJAY KUMAR DESHPANDE
ANJANA DESHPANDE
#36, 7th cross 4th A MAIN SRINIVAS NAVAR BSK IST STARTE BENGALURU - 560050
8147413392 nehavd 28 @ gmail = com
9880990437
APS COLLEGE OF ARTS & SCIENCE

CANDIDATE'S SIGNATURE

PRINCIPAL 18/22



### REGISTRATION FORM FOR CERTIFICATE COURSES

2021-2022

COURSE NAME: Technical Solil Development on ICT Took

COURSE CODE : TSDIIO!

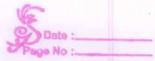
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APPLICATION NO:	

	P
NAME	GOWITHAMI. N
DATE OF BIRTH	27-10-2001
CLASS	and year BCA Ty Sem
REG. NO.	R2010007
FATHER NAME	Nagaraj k
MOTHER NAME .	Parvatho
RESIDENTIAL ADDRESS	# 24/6, 9th cross, Rangappa layout, Diary circle
MOBILE NO. & E-MAIL OF CANDIDATE	7337663301 nagarajnagusindhu @gmail.com
PARENT'S CONTACT NO.	7204556676
NAME OF COLLEGE/INSTITUTION	-APS college of arts and Science
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FACULTY INCHARGE SIGNATURE	

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CANDIDATE'S SIGNATURE

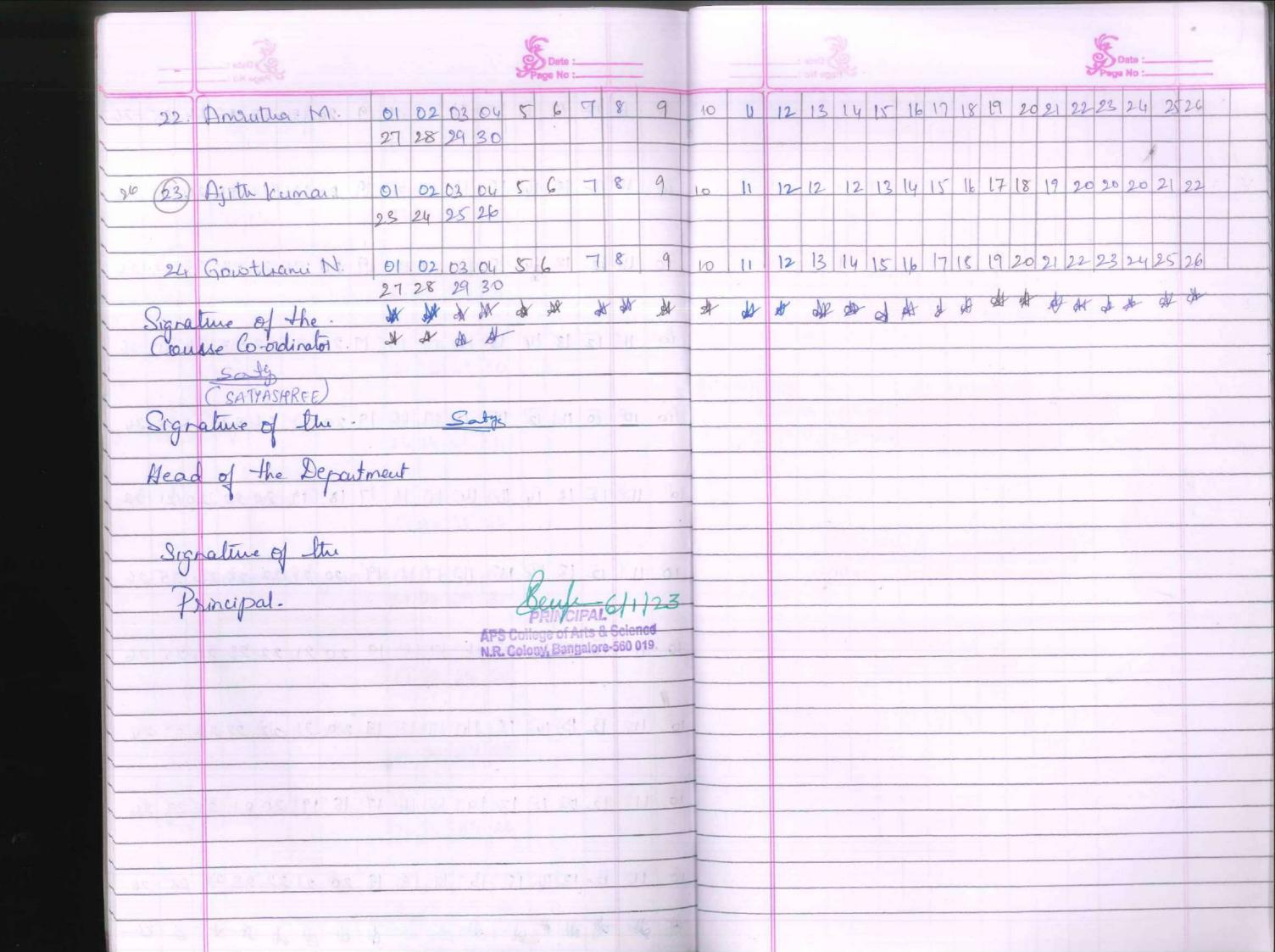
PRINCIPAL 18/2



A. P.S. College of Arts & Science Value Added Courses under. Technical Skill Development ou Conducted By: Department of Computer Science Course Mane: Technical Skill Development on ICT Tool. Coarse Code : TSDIT 01



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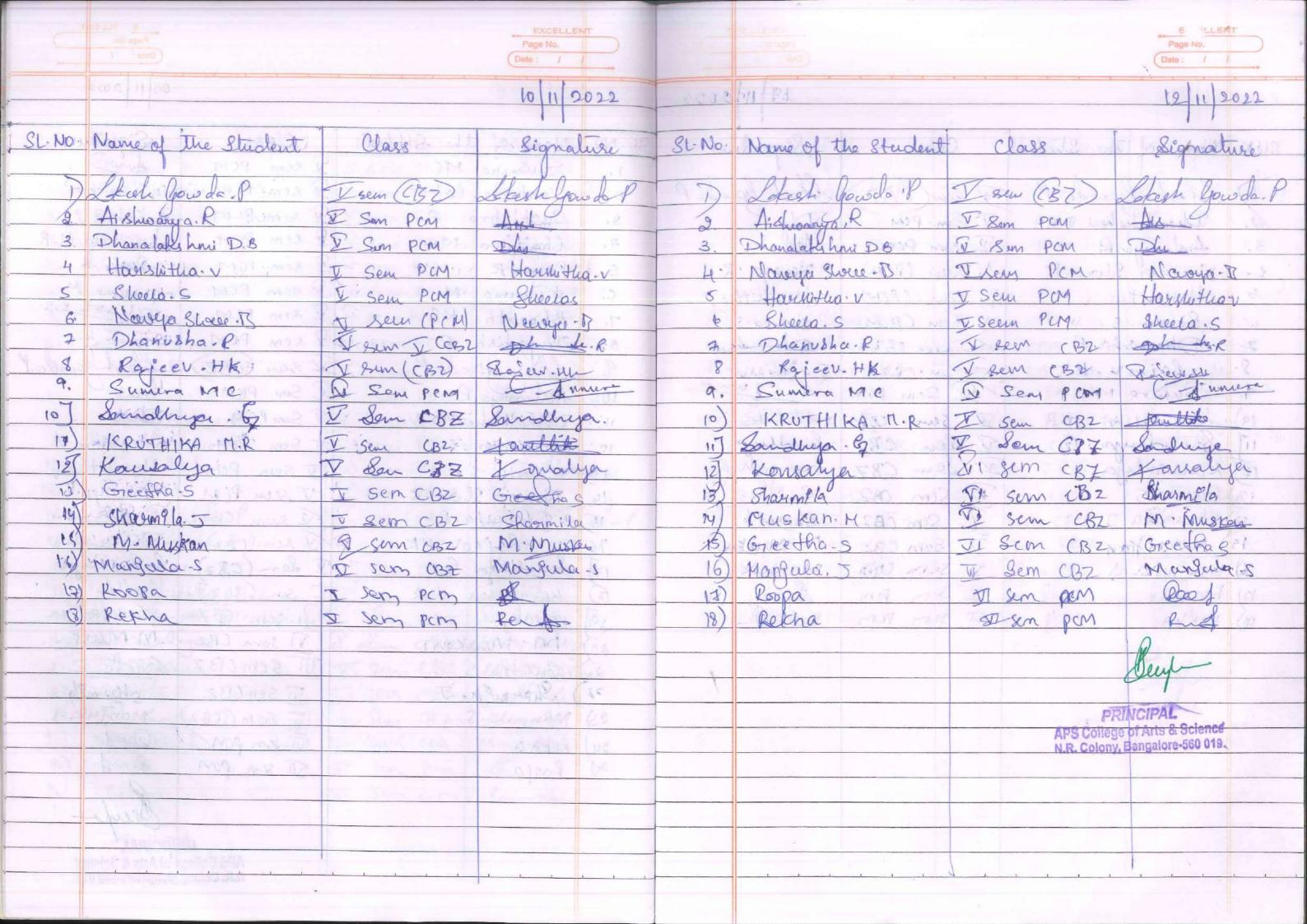
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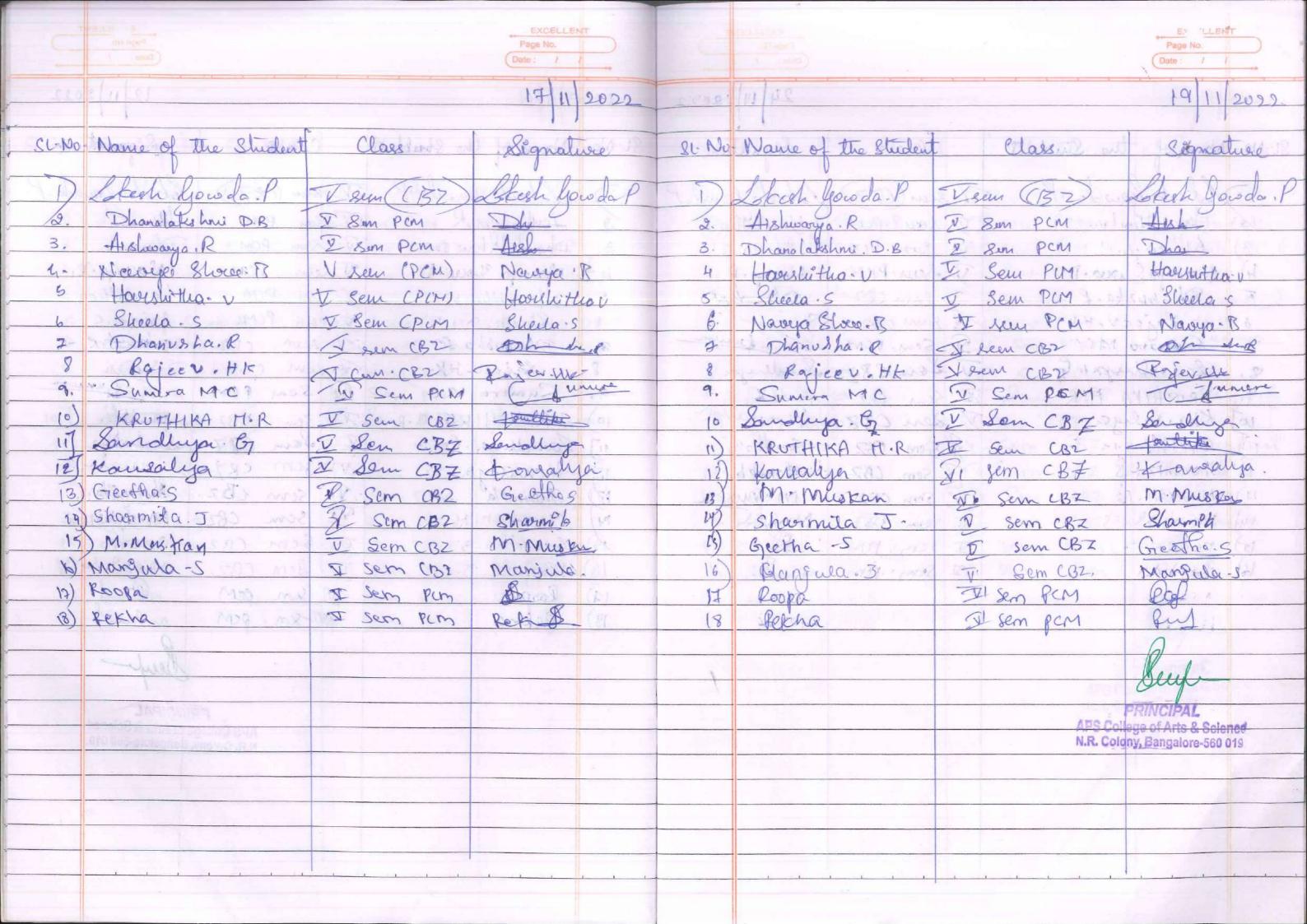
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01	Manjula.S. (M)9)	IN BSC (CBZ)	Mangula.d.
02	Poopa.y.s	INSEMBSC (PCM)	Cocast 1
03	Rekha y.s	Dem BSC (PCM)	Reel
04	Kusuma M	Wem BSC (PCM)	Kusuma M
-05	Karyashee M (1900)	Ween Bisc (pun)	Kupuma M
06	M. Muskan	V sem B. Sc(CBZ)	M. Muskay
DŦ	Shannila J	I Sem B.Sc (CBZ)	Shamela 2
08	Greetha. S	IV Sem B. Sc(CBZ)	George S
09	Dhonalakeshmi D.B	IN Som Bac (DOM)	Dan John
10	Aishwarya R	ID Som Ba (pcm)	Aishwaya, R
U	Manya Storee - B	Wsem B-Se (PCM)	Neweyo B
19.	Ashwini Hotli	I Sem B-Sc (PCM)	A-S. Hotti
13,	Shilpa M	I Sem B. Se (PCM)	Shilper 8
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17)	Rajeev. Kk. 5%.	IT sem Bec (CB2)	Pajeev. M.
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19)	Sumura M.C	IV # Sem B. Sc (PCM)	1 muero M
28)	Sheela. S	To leur B.SC(PCM)	
21)	Har Shi tha. V	IN Sem BSC(POM)	tlasslitha.
-	kavya	<i>9</i> -14.	
22)	Charath 108	W sem (SSC Chm)	3
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24	Sandluga . Ez	IV Sen BCCCPZ	) Snot
25	Lousalya	St Sem CBZ	Lowellya
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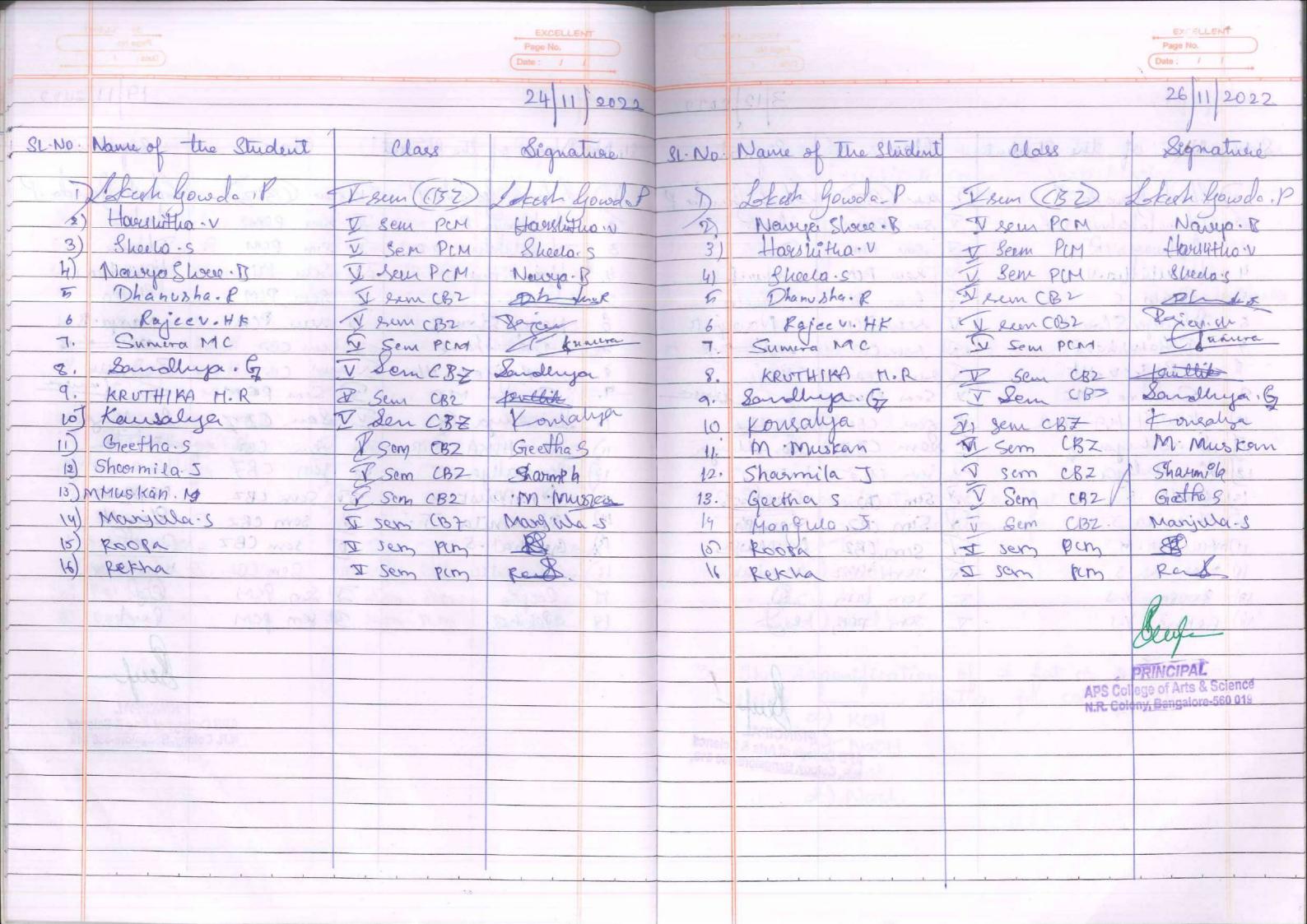
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1	Harshitha. V Jon BSC (PCM) Houshithia v	10	1. 9	Sumera MC	V sem (PCM)	
2	Sheela . S. IV sem BSC (PCM) Sheelang	80	2.	Pooja . R. 9 mm V	Dem (PCM)	
3		20	3.	Shilpa. B1	2 sem (PCM)	Shilper
4		HO	4,	Aishwanya. R	I sem (PCM)	Aishwaya. R
5	Sumera MC Seni BSC(PCM) Summi	35	5.	Dhanalalishmi DB	N sem (PCM)	Dhas &
6.		90	6.5	Navyashnee. B	D sem (PCM)	Navya B.
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8.	Lokesh Gowda. P V Sem BIL 132 Lokesh Good .	3C	8,	Bharath K.S	2 sem (PCM)	Theorath K.S.
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10.	Dhamalakihna DB & Som B.sc [Pai] & Dominish	at	10.	Houslittia.v	I Sem C PCM	Harshithor
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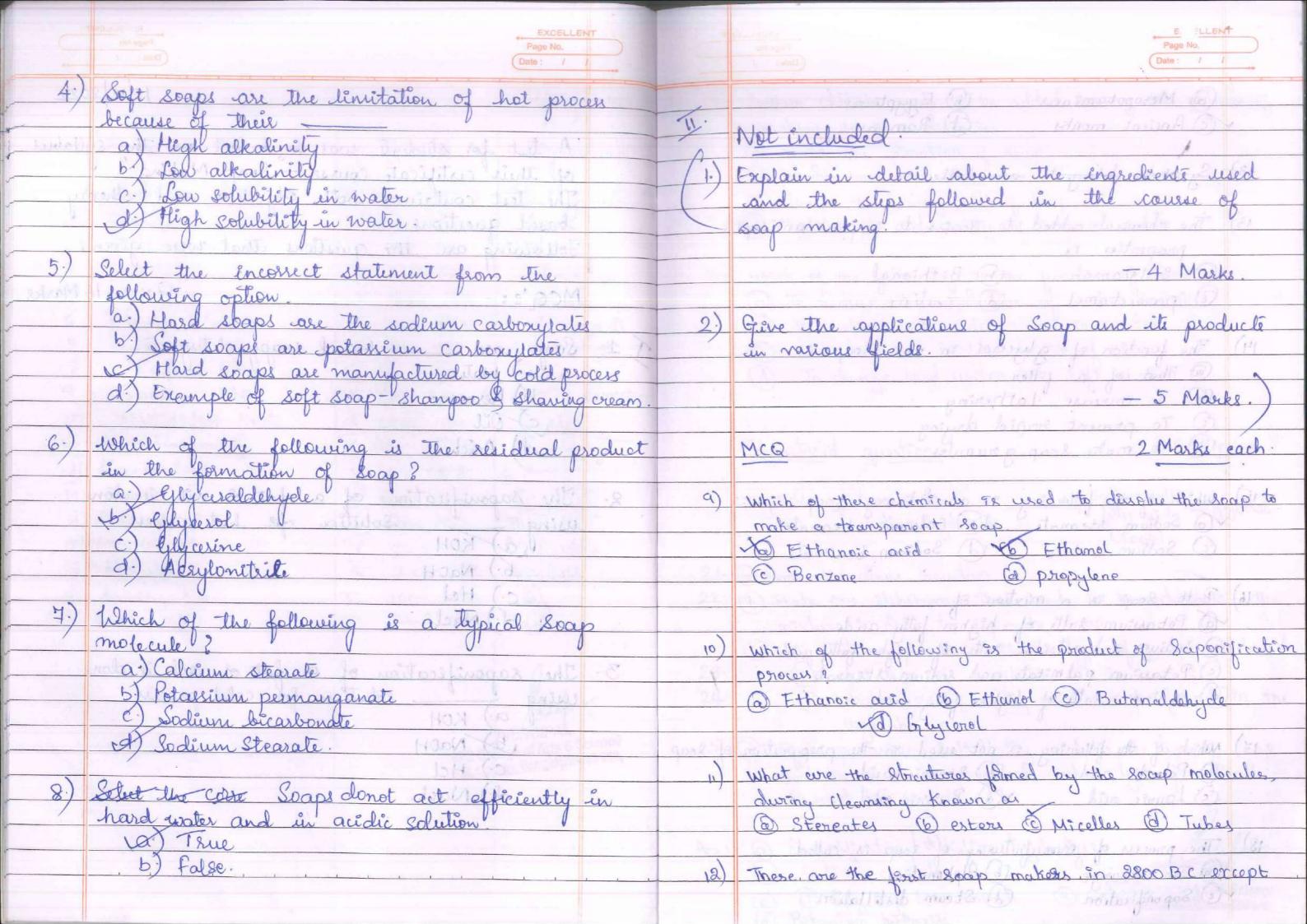
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2.	Alshwarya R	of the Sens pcm.	AishwaryaR	2.	Alshwanya R	1 sem PCM	ALL
3,	Dhanalakshmi DB	Ith SIM PCM	ahan !	3.	Dhanalakshmi DB	I sem PCM	Didg 18
4.	Bharath KS	& sem PCM	Bharisth	и.	Bharath KST109 MIS R	D sem PCM	The Laveth
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7.	Sheela Similar	Y sem Pcm		٦.	Lotech you do P	I sem (BZ)	Scal bounda?
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12	Rajce V. HK	/ 0 /	Rayer UK	12	Dhanusha.R	I sem (B2	shirth a
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15	Kamealya			15	Samalhya . Cz	V Sem CBZ	Sandluga.
16)	Greetha. 8	V Sem (CBZ)	Greetho. S	(6)	Konsalya	Se'sum CBZ	
	Sharmela-5	Sem (CB2)	Sharmela	17	Sharmello. J	I gem CBZ	Sharing h
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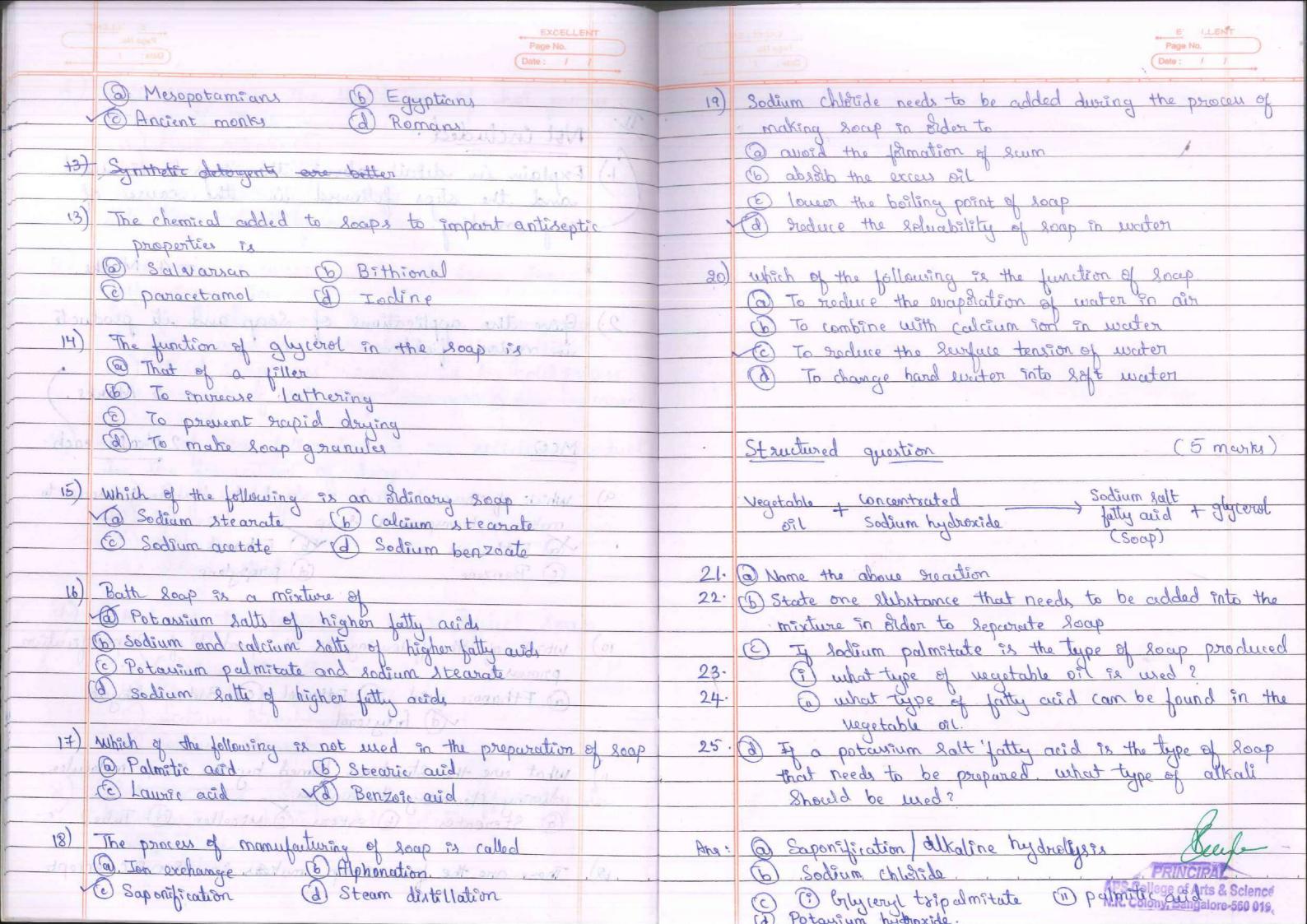
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2.	Alshwanya R	& sem PCM	Aishwaya. R	2.	Surheela Bai	Rem PCM	Suy hear bai
3.	Dhanalakshni DB	V sem PCM	pholis	3.	Suchithra S	I sem PCM	Suchthra S.
н,	Pooja R	R sem PCM	Popia R	4.	Chaithra MR	& sem PCM	chaithra. M.R
5,	Shilpa. MMD9 Mgs 12	& sem PCM	Shillpa M	5.	Pooja R	2 sem PCM	Pooja - R.
G,	Suchithra. S.	N sem PCM	Substina	6.	Kusuma M	D Rem PCM	Rujuma M
7.	chaithra.M.R	& Bem PCM	chaithra	7.	Bharath KS	I sem PCM	Elwith es
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## APS EDUCATIONAL TRUST (R)

(Estd 1935)

# APS COLLEGE OF ARTS & SCIENCE

N.R COLONY, BENGALURU - 560 019

### CERTIFICATE

department of CHEMISTRY during the year 2022 - 2023.	in ce Soop Making" with grade	of I. Sem. B. Schas successfully completed a certificate course of	The College records with pleasure that RATEEY:
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Programme Co-Ordinator

C: Average (40-54)

Pringipal AL

O=Outstanding(80-100)

A: Excellent(70-79)

B: Good(55-69)

N.R. Colony, Bangalore-560
1 Credit - 30hours of instruction. APS College of Arts & Science



## APS EDUCATIONAL TRUST (R)

(Estd 1935)

# APS COLLEGE OF ARTS & SCIENCE

N.R COLONY, BENGALURU - 560 019

### CERTIFICATE

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Programme o-Ordinator

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N.R. Colony, Bangalore-560 07 APS College of Arts & Science

O=Outstanding(80-100)

A: Excellent(70-79)

B: Good(55-69)

Grades:

C: Average (40-54)



### Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore –560 019.

Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com

Dr.B.Jayashree M.Sc., M.Phil., Ph.D.
I/C Principal

No. APSAS /237 A / 2022-2023

Dated: 29 -07-2022

### CIRCULAR

Students of IV Semester BA, B.Sc and BCA are hereby informed that Value added/Certificate courses will be conducted for free of cost during August 2022 for 30 hours as per the notified time table. This will enhance your skills and increase your employability. Certificate will be issued after the successful completion of the course.

Interested IV Semester BA, B.Sc and BCA students are hereby informed to register your name with respective course coordinators.

- 1. Mrs. Sathyashree Department of Computer Science
- 2. Dr. Narasimha Parvathikar Department of Physics
- 3. Mrs. Sona Bai Department of Chemistry
- 4. Mrs. Harshitha.S Department of Psychology

Principal

PRINCIPAL



### Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore –560 019.

Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com

No. APSAS / 199 / 2022-2023

Dated: 13 -07-2022

### **CIRCULAR**

All the Heads of the Department are hereby informed that Life Skill/add on courses will be conducted for the academic year 2021-22. Courses in Kannada, Physics, Mathematics, Chemistry, Psychology, Humanities and Computer Science are scheduled to be conducted from first week of August 2022 for 4th Semester B.A, B.Sc and B.C.A students. Each of the courses will be conducted for 30 hrs duration. HODs are required to submit the Syllabus and time table before 20<sup>th</sup> July 2022 as it has to be approved in GC meeting.

PRINCIPAL



### Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore –560 019.

Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com

Dr.B.Jayashree M.Sc., M.Phil., Ph.D. I/C Principal

Dated: 29 -07-2022

### Time Table for Add on/Certificate Course for the Academic year 2021-22 for 2<sup>nd</sup> year B.A, B.SC and BCA

DEPARTMENT	DAY	TIME	STUDENTS
COMPUTER SCIENCE	Monday	2:30 – 4:30 pm	IV Sem BCA & Interested Students from B.Sc & BA
PHYSICS	Friday	3:30 – 5:30 pm	IV Sem PCM & BCA
CHEMISTRY	Saturday	1:30 – 3:30 pm	IV Sem PCM & CBZ
PSYCHOLOGY	Wednesday	3:30 – 5:30 pm	IV Sem BA & BSC

Principal PRINCIPAL

### ACHARYA PATHASALA COLLEGE OF ARTS AND SCIENCE

N.R. COLONY BANGALORE 560019

### DEPARTMENT OF CHEMISTRY

### SYLLABUS FOR SOAP MAKING COURSE:

The 30 hrs course on "Soap Making" was divided into theory and practical sessions.

Theory sessions helped the students to understand in detail about the History of the soap making, the ingredients used, the applications of the soaps made, challenges faced and so on.

Practical sessions helped them to create their own desirable soaps with variations of color, fragrance and shape.

### Detailed Course Breakdown:

### Theory:

Unit-1: Introduction to oil and fats:

(2hours)

1.1 Classification, structure and sources of oil and fats

1.2 Natural sources of oils and fats in India

Unit-2: Soaps:

(4hours)

2.1 Introduction to soaps, synthetic detergents, raw materials and its selection

2:2 Principles of Joap making and chemistry of Soap

2.3 Boiling, Saponification process.

Unit-3: Detergents:

(4hours)

3.1 Types of detergents, classification of detergents (anionic, cationic, nonionic, amphoterics), biodegradability.

3.2 Inorganic compounds of detergents (builder & other additives, phosphates, silicates, zeolites, etc)

Unit-4: Synthetic detergents:

(8hours)

- 4.1 Organic raw materials for manufacturing of fatty acids, olefins, alkylbenzene, methyl esters, fatty amines, ethylene oxide, propylene oxide sources and manufacture.
- 4.2 Inorganic raw material for sulphonation viz; sulphuric acid, sulphonic acid, oleum, sulphur trioxide, chlorosulphonic acid.
- 4.3 Sulphonation of organic raw materials like fatty acids, fatty acids ethoxylates plants and processes.

4.4 Sulphonation of alkylbenzene, olefins & vegetable oils, plants and processes.

Practicals: Development of Hands-on Skills:

(10 hours)

Making Different varieties of Soaps by using different ingredients, different fragrances and altering the compositions of the chemicals used to obtain Soaps of various colors and shapes. Preparation of Mild Shampoos and bath salts were attempted.

PRINCIPAL

APS College of Arts & Science

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### ACHARYA PATHASALA COLLEGE OF ARTS AND SCIENCE

N.R. COLONY BANGALORE 560019

### **DEPARTMENT OF CHEMISTRY**

### REPORT ON CERTIFICATE COURSE FOR THE ACADEMIC YEAR 2022-2023

### "SOAP MAKING"

A certificate program is a specialized educational course designed to develop or strengthen their experimental abilities. It builds knowledge on specific topics related to particular career or industry. It enhances their confidence and helps them to become successful entrepreneurs in the future. Certificate course helps an individual to showcase his competency, commitment and to build expertise in his professional subject area.

### **OBJECTIVES:**

- Skill development for detergent cake and liquid soap, shampoo, hand wash making.
- Knowledge of basic concepts and techniques of soap and detergent industry.
- · Understanding of oil, fat and their sources in India.

Inauguration of certificate course was done by the Department of Chemistry on 6<sup>th</sup> August 2022. Our Principal Dr. B Jayashree sent best wishes for the programme. The programme was inaugurated by Smt. Vasanthi. K, Assistant Professor, Department of Sociology. The programme was anchored by Sumera M C of V semester B Sc. The course started under the guidance of Smt. Sona Bai. HOD. Department of Chemistry and Dr. Vandhana, Assistant Professor, Department of Chemistry.



Soap making procedure was selected for the certificate course because the current trend for handcrafted products shows no sign of waning. Today, more than ever, consumers are drawn to the authenticity and quality of homemade items. Handmade soaps, especially, have seen an upsurge in demand, gracing the shelves of boutique stores, salons, and even restaurants. This resurgence of interest in artisanal products presents a golden opportunity for those skilled in the craft. And this course is the gateway to that world.

Soap making course was divided into theory and practical sessions. Theory Sessions covered all the theoretical aspects required for the course and Practical Sessions gave them the exposure to work independently in the lab.

Students enthusiastically participated and performed the procedures well. They used different types of oil, caustic soda and natural flavors like sandal, lime, jasmine, and lavender. Expected results were obtained. An assessment in form of multiple choice questions was conducted for the students on December 17th 2022 to assess the knowledge gained by them on this topic. The students performed well and a positive feedback was obtained for the course.



### OUTCOME:

- Students got an idea about the procedure, list of ingredients used and the advantages of naturally made soaps.
- Students were able to understand the rich history of soap-making.
- Master a variety of soap recipes, from aromatherapy to specialty soaps.
- Troubleshoot common issues with practical solutions.
- Students got Hands on Skills training to perform the procedures well.

Around 20 students regularly attended the programme and completed the course successfully and certificates were issued for the same.



### **APS college of Arts and Science**

	N.R colony B	angalore-560019
	Departmen	nt of Chemistry
D	Ouration: 1 hr	Date:   0   12   201
	Examination - Certification	ate course on Soap making
Re	egister No. : \$2010019	(42)
Aı	nswer the all the following questions each qu	estion carries two marks (25 X 2 = 50)
	Soaps are based soapy detergen	ts.
	(a) Water b) Kerosene	c) Oil d) Acid
	2) - The saponification of a fat or oil is done	using solution for hot process.
		c) HCl d) NaCl
	3) Soft soaps are the limitation of hot proce	
	a) High alkalinity	
	b) Low alkalinity	
	c) Low solubility in water	$\propto$
	d) High solubility in water	
	4) The saponification of a fat or oil is done	using solution for cold process
		OHO Wall
	5) Select the incorrect statement from the	
	a) Hard soaps are the sodium carboxyla	
	b) Soft soaps are potassium carboxylat	
	(c) Hard soaps are manufactured by col	
	d) Example of soft soap – shampoo and	
	Which of the following is the residual pro-	No. 2010 100 100 100 100 100 100 100 100 10
		c) Glycerol
	Control of the Contro	d) Acrylonitrile
	<ul><li>7) Which of the following is a typical soap r</li><li>a) Calcium stearate</li></ul>	
		c) Sodium bicarbonate
		d) Sodium stearate
	8) Soaps do not act efficiently in hard wate	With and the
		b) False
		olve the soap to make a transparent soap
	W. C.	e) Ethanol
		d) Propylene
	10) Which of the following is the product of	
		c) Ethanol
		d) Glycerol
	11) What are the structures formed by the s	
	a) Stereates b) Esters	c) Micelles d) Tubes

2) These are	the first soap makers in 2800	BC except
a) Mesop	ootamians	c) Egyptians
- 4	t monks	d) Romans
3) The chemi	cal added to soaps to impart	antiseptic properties is
a) Salvar	san	b) Bithional
b) Parace	tamol	d) todine
4) The functi	on of glycerol in the soap is	
a) That o	f a filler	
b) To inc	rease lathering	
C To pre	vent rapid drying	
d) To ma	ke soap granules	
5) Which of t	he following is an ordinary so	pap
the same of the same of	n stearate	c) Calcium stearate
b) Sodiu	n acetate	d) Sodium benzoate
6) Bath soap	is a mixture of	
a Potas	ium salts of higher fatty acid	s
b) Sodiu	m and calcium salts of higher	fatty acids
c) Potas:	sium palmitate and sodium st	rearate
d) Sodiu	m salts of higher fatty acids	
.7) Which of	he following is not used in th	e preparation of soap
a) Palmi	tic acid	c) Stearic acid
b) Lauric		Ld) Benzoic acid
8) The proce	es of manufacturing of Soap i	s called:
a) lon ex	change	b) Alphonation
(b) Sapor		d) Steam distillation
19) Sodium cl	loride needs to be added du	ring the process of making soap in order to
a) Avoid	the formation of scum	
b) Absor	b the excess oil	
c) Lowe	the boiling point of soap	
d) Redu	ce the solubility of soap in wa	ter
20) Which of	the following is the function (	of soap
a) To re	duce the evaporation of wate	r in air
b) To co	mbine with calcium ion in wa	ter
To re	duce the surface tension of w	rater
d) To ch	ange hard water into soft wa	ter
ver the follov	oil + concentrated sodium hydroxide	

d) Redox reaction

b) Ion disintegration

22) State one substance that needs to be added into the mixture in order to separate soap a) KOH b) Sodium chloride c) H2SO4 If sodium palmitate is the type of soap produced 23) What type of vegetable oil is used? a) Glyceryl tripalmitate c) Butanaldehyde b) Acrylonitrile d) Stereates 24) What type of fatty acid can be found in the vegetable oil a) HCI b) Palmitic acid c) Lauric acid d) Benzoic acid 25) If a potassium salt fatty acid is the type of soap that needs to be prepared. What type of alkali should be used? a) Sodium stearate Potassium Hydroxide b) Sodium benzoate d) Sodium acetate

### APS college of Arts and Science

### N.R colony Bangalore-560019

Dep	artment of Chemistry
Duration: 1 hr	Date 10 12 20
Evamination - (	Certificate course on Soap making
	Servincate course on soap making
Register No.: \$2010014	
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Answer the all the following questions e	ach question carries two marks (25 × 2 - 50)
1) Soaps are based soapy de	etergents.
a) Water b) Kerose	
2) The saponification of a fat or oil is	s done using solution for hot process.
a) KOH Lat NaOH	
3) Soft soaps are the limitation of ho	ot process because of their
a) High alkalinity	
b) Low alkalinity	
c) Low solubility in water	
(d) High solubility in water	
4) The saponification of a fat or oil is	s done using solution for cold process.
a) KOH b) NaOH	c) HCl d) Nacl
5) Select the incorrect statement fro	om the following option.
Hard soaps are the sodium ca	rboxylates
b) Soft soaps are potassium carb	poxylates
c) Hard soaps are manufactured	by cold process
d) Example of soft soap – shamp	ooo and shaving cream
<ol><li>Which of the following is the residual</li></ol>	dual product in the formation of soap?
a) Glyceraldehyde	c) Glycerol
b) Glycerline	d) Acrylonitrile
<ol><li>Which of the following is a typical</li></ol>	soap molecule?
Calcium stearate	c) Sodium bicarbonate
b) Potassium permanganate	d) Sodium stearate
8) Soaps do not act efficiently in hard	d water and in acidic solution.
a) True	b) False
9) Which of these chemicals is used to	to dissolve the soap to make a transparent soap
(a) Ethanoic acid	c) Ethanol
b) Benzene	d) Propylene
10) Which of the following is the prod	uct of saponification process?
a) Ethanoic acid	c) Ethanol

d) Glycerol

c) Micelles

d) Tubes

11) What are the structures formed by the soap molecules, during cleansing known as

b) Esters

b) Butanaldehyde

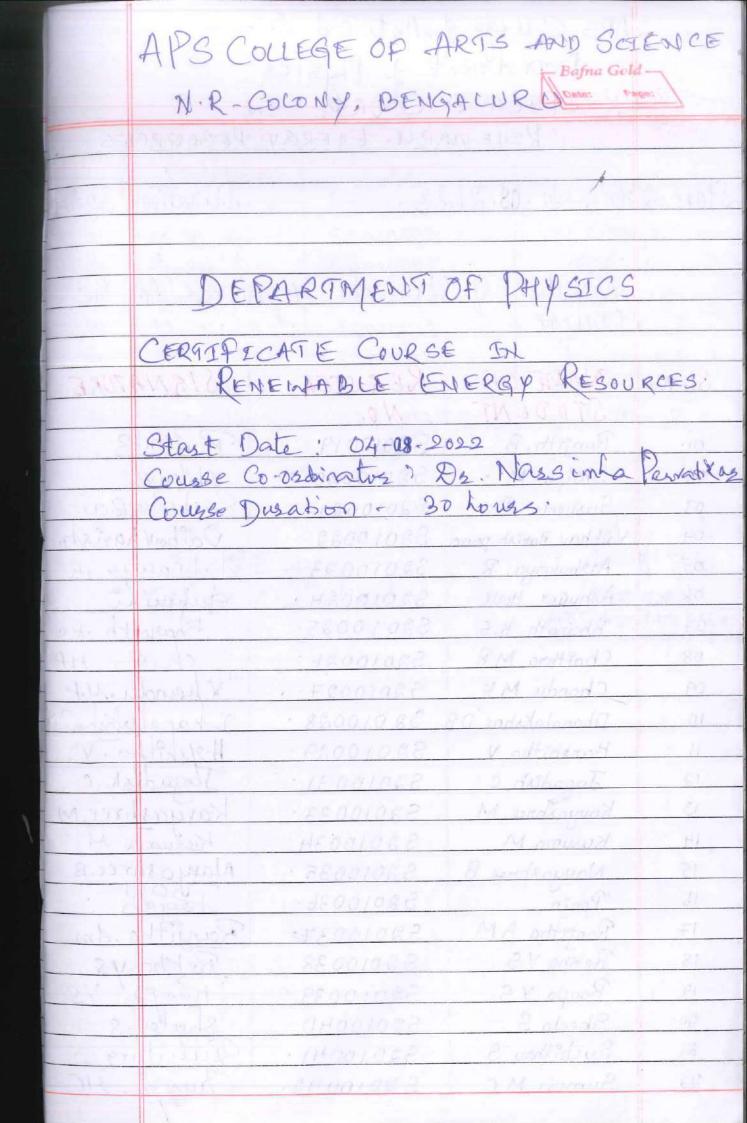
a) Stereates

Vege	etable oil + concentrated sodium hydroxide	Sodium salt fatty acid + glycerol (soap)
ver the	following question by analysing the	e given chemical equation
d)	To change hard water into soft wa	iter
ret	To reduce the surface tension of v	
b)	To combine with calcium ion in wa	ater
a)	To reduce the evaporation of water	er in air
20) Wł	nich of the following is the function	of soap
W.	Reduce the solubility of soap in w	ater
c)	Lower the boiling point of soap	
	Absorb the excess oil	
d)	Avoid the formation of scum	
19) So	dium chloride needs to be added d	uring the process of making soap in order to
cbt		d) Steam distillation
a)	/	b) Alphonation
/	e process of manufacturing of soap	is called
b)		d) Benzoic acid
a)	Palmitic acid	of Stearic acid
17) W	hich of the following is not used in	the preparation of soap
d)	acius	
c)	resoluti pairittate and souluin	stearate
b)	Sodium and calcium salts of high	er fatty acids
(a)	Potassium salts of higher fatty ac	cids
	ath soap is a mixture of	
	Sodium acetate	d) Sodium benzoate
	Sodium stearate	c) Calcium stearate
15) W	which of the following is an ordinary	y soap
	) To make soap granules	
c	- Present abid all Allig	
b	/ - merease latificities	$ \swarrow $
а	) That of a filler	
14) T	he function of glycerol in the soap	is
	) Paracetamol	ditodine
а	) Salvarsan	b) Bithional
13) T	he chemical added to soaps to imp	part antiseptic properties is
L	) interest trionics	d) Romans
	) Mesopotamians	c) Egyptians

d) Redox reaction

b) Ion disintegration

22) State one substance that needs to be added into the mixture in order to separate soap b) Sodium chloride c) H2SO4 d) NaOH If sodium palmitate is the type of soap produced 23) What type of vegetable oil is used? Glyceryl tripalmitate c) Butanaldehyde b) Acrylonitrile d) Stereates 24) What type of fatty acid can be found in the vegetable oil a) HCl Palmitic acid c) Lauric acid d) Benzoic acid 25) If a potassium salt fatty acid is the type of soap that needs to be prepared. What type of alkali should be used? a) Sodium stearate Potassium Hydroxide b) Sodium benzoate d) Sodium acetate



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### APS College of Arts and Science, N. R. Colony, Bengaluru - 560 019.

### Department of Physics

Date:25/02/2023

### Certificate course Report

A certificate course is a short-term educational program that focuses on specific skills or knowledge in a particular field. A renewable energy resource has emerged as a crucial solution to address the pressing environmental challenges associated with traditional energy sources. Department of Physics had conducted 30 hrs certificate course for B.Sc students.

### Objective: -

- To create awareness among students related to environmental challenges and importance of renewable energy resources through certificate course.
- To enhance job opportunities in the respective field.



The certificate course on Renewable energy resources was conducted by the Department of Physics and was inaugurated by the Principal Dr. B. Jayashree on 4<sup>th</sup> August 2022 by delivering an introductory note on the importance of Renewable energy in present scenario, the increasing demand, Government initiatives, policy support, technologies used to implement the renewable energy resources.

The regular classes on Renewable energy resources was started from 5<sup>th</sup> August 2022 and completed on 17.2.2023. Dr. B. Jayashree, an expert in the field of solar cells installation and radiation and Dr. Narsimha Parvatikar, HOD of Physics handled all the classes on every Friday for 2 hrs. The emphasis was given to know more on clean and green energy production such as solar energy, hydropower and wind power. Students were exposed to have practical experience in the working of solar cells. Students have shown a great interest in the topic with positive feedbacks. This course helped them to realize the importance of renewable energy and gave necessary skill to adopt to the available solar energy resources to become independent solar power producer in near future.





### Outcome of the certificate course: -

- An awareness was created among the students regarding the renewableenergy resources.
- Development of necessary skill to utilize and produce the solar energy sources.
- Students developed an interest in the subject.

A total of 30 students were enrolled for the certificate course on Renewable energy resources. An objective type final round examination was conducted on 21/02/2023. Certificates were distributed to all the students upon successfully completing the course.

PrincipaCIPAL

APS College of Arts & Science N.R. Colony, Bangalors-569 019.



## APS EDUCATIONAL TRUST (R)

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N.R COLONY, BENGALURU - 560 019

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A: Excellent(70-79)

C: Average (40-54)

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N.R. Colony, Bangalore-58 1 Credit - 30hours of instruction.

Grades:

O=Outstanding(80-100)

B: Good(55-69)

Programme Co-Ordinator



## APS EDUCATIONAL TRUST (R)

(Estd 1935)

# APS COLLEGE OF ARTS & SCIENCE

N.R COLONY, BENGALURU - 560 019

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Grades:

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Programme Co-Ordinator

C: Average (40-54)



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# APS COLLEGE OF ARTS & SCIENCE



N.R COLONY, BENGALURU - 560 019

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A: Excellent(70-79)

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Programme Co-Ordinator

C: Average (40-54)

Principal

APS College of Instruction.

### Department of Physics

Certificate Course in Renewable Energy Resources

Start date: 04/08/2022

Course coordinator: Dr. Navimha Panvatikar

Course duration: 30 hours.

### Renewable Energy Resources

- Cinculars and Time table -

Syllabus Copy for Renewable Energy surrouries



### Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore –560 019.

 $Website: \underline{apscollegeofarts and science.com}\ Email: \underline{apscollegeofarts science@gmail.com}$ 

No. APSAS / 99 / 2022-2023

Dated: 13 -07-2022

### CIRCULAR

All the Heads of the Department are hereby informed that Life Skill/add on courses will be conducted for the academic year 2021-22. Courses in Kannada, Physics, Mathematics, Chemistry, Psychology, Humanities and Computer Science are scheduled to be conducted from first week of August 2022 for 4th Semester B.A, B.Sc and B.C.A students. Each of the courses will be conducted for 30 hrs duration. HODs are required to submit the Syllabus and time table before 20<sup>th</sup> July 2022 as it has to be approved in GC meeting.

PRINCIPAL

APS College of Arts & Science N.R. Colony, Bangalore-560 01s



### Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore -560 019.

Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com

Dr.B.Jayashree M.Sc., M.Phil., Ph.D. I/C Principal

No. APSAS / 237A/ 2022-2023

Dated: 29 -07-2022

### **CIRCULAR**

Students of IV Semester BA, B.Sc and BCA are hereby informed that Value added/Certificate courses will be conducted for free of cost during August 2022 for 30 hours as per the notified time table. This will enhance your skills and increase your employability. Certificate will be issued after the successful completion of the course.

Interested IV Semester BA, B.Sc and BCA students are hereby informed to register your name with respective course coordinators.

- 1. Mrs. Sathyashree Department of Computer Science
- 2. Dr. Narasimha Parvathikar Department of Physics
- 3. Mrs. Sona Bai Department of Chemistry
- 4. Mrs. Harshitha.S Department of Psychology

PRINCIPAL College of Arts & Palas

N.R. Colony, Bangalore-560 019



### Acharya Pathasala College of Arts & Science Narasimharaja Colony, Bangalore –560 019.

Website: apscollegeofartsandscience.com Email: apscollegeofartsscience@gmail.com

Dr.B.Jayashree M.Sc., M.Phil., Ph.D. I/C Principal

Dated: 29 -07-2022

### Time Table for Add on/Certificate Course for the Academic year 2021-22 for 2<sup>nd</sup> year B.A, B.SC and BCA

DEPARTMENT	DAY	TIME	STUDENTS
COMPUTER SCIENCE	Monday	2:30 – 4:30 pm	IV Sem BCA & Interesed Students from B.Sc & BA
PHYSICS	Friday	3:30 – 5:30 pm	IV Sem PCM & BCA
CHEMISTRY	Saturday	1:30 – 3:30 pm	IV Sem PCM & CBZ
PSYCHOLOGY	Wednesday	3:30 – 5:30 pm	IV Sem BA & BSC

Principal PRINCIPAL

APS College of Arts & Science N.R. Colony, Bangalore-560 019



### APS College of arts and science, N.R colony Bangalore-560 019

### Department of physics

Date: - 29/07/2022

### RENEWABLE ENERGY RESOURCES SYLLABUS (30 HOURS)\

**ENERGY SOURCES** 

(8 Hours)

Introduction, Definition of Energy, The Role of energy in Development. Conventional and Non Conventional Energy Sources Differences, Advantages, Disadvantages and Limitations. Conventional energy sources: Hydro Electric, Thermal, Nuclear. Non-Conventional Energy sources: Bio-mass, geo-thermal, solar, wind energy, ocean energy, wave energy. Commercial energy sources, fossil-fuels coal, oil, natural gas, hydro electric power, nuclear, Non-commercial energy sources, wood, animal wastes, agricultural waste, cost of raw materials, transport problems, issues.

Fundamentals on solar radiation

(2 Hours)

Structure of the sun and sun-earth relationship, Extra-terrestrial and terrestrial solar radiation, solar angles (declination angles, zenith angle, azimuth angle, angle of incident, slope, air mass, etc.), Equation of time and solar time. Solar radiation components (diffuse horizontal irradiance (DHI), global horizontal irradiance (GHI), direct normal irradiance (DNI), global tilt irradiance (GTI)), solar radiation measuring instruments(pyranometer, pyrheliometer, UV radiometers, albedo meter, etc.) and working principle. Various factors involving in attenuation of solar radiation.

PRINCIPLES OF PHOTOVOLTAIC SYSTEMS

(6 Hours)

Photoelectric effect, solar cell operation(structure, sort circuit current, open circuit voltage, fill factor, efficiency, IV curve, etc.), semiconductor materials, different generation of solar cells (first, second and third), position of the sun in the sky over the day, shadowing effects, Advantages & disadvantages of photo-voltaic conversion, solar cell, module design and connections, solar panels array design based on power system,., working of blocking and bypass diodes in solar pv panels, Interconnections and mismatch effects in solar modules in array.

SOLAR CELLS

(4 Hours)

Solar Cell Technologies Crystalline Cells: Mono- crystalline and poly – crystalline cells, Metallurgical Grade Si, Electronic Grade Si, wafer production, Mono – crystalline Si Ingots, Poly – crystalline Si Ingots, Si – wafers, Si – sheets, Solar grade Silicon, Si usage in solar PV, Commercial Si solar cells, process flow of commercial Si cell technology, process in solar cell technologies, Sawing and surface texturing, diffusion process, thin film layers, Metal contact.

SOLAR WATER HEATER & LIGHTING SYSTEM (3 Hours)

Principals of solar thermal systems, Technology's in solar water heating systems. Description of main parts of solar lighting system: Solar Lantern, street light. Charge controller, Storage battery, Inverter, Luminars, Maintenance of solar lighting system, types and advantages of solar outdoor lighting Comparative study of Conventional lighting system & solar lighting system

**SOLAR POWER PLANTS** 

(3 Hours)

Introduction, Solar energy system site considerations, components of typical SPV system, Types of Roofs, overview of the planning stage, Selection of systems design and objective for grid connected system. check list preparation, soft and entrepreneurship skills on job training

INDIA'S RENEWABLE ENERGY SECTOR

(4 hours)

Energy-related issues of national and regional importance. Job/Business opportunities in India's solar sector. Initiatives taken by the government to promote renewable energy sector. India utilised its renewable energy potential, Challenges while shifting to renewable

Beege

Renewable Energy Resources

- Question paper and Answer sheets -



2)2023

### **APS college of Arts and Science**

### N.R colony Bangalore-560019

Department of Physics

	Dura	ration: 1 hr	bate: 21
		Examination - Certificate course on Renewable Energy Resources	
R	egist	ter No.: 52010019	
		and a Hat fall of the state of	
A	nswe	er the all the following questions each question carries two marks	$(25 \times 2 = 50)$
	1)	Which of the following is a non-renewable resource?	
	-,	a) Solar b) Geothermal c) Coal d) Tidal	
	2)		
	-/	a) Wind b) Sunlight c) Oceanic tides d) Biomass	
	3)		
		a) Coal b) Geothermal c) Tidal d) Solar	X
	4)	2,5514	
		a) 1980 b) 2002 c) 1963 d) 1956	
	5)	In a hydroelectric power plant, the electric power is obtained from the	
		a) Chemical energy c) Nuclear energy	
		b) Potential energy a) Energy of water	
	6)	Based on usability, Energy Resources are classified into	
		a) primary, secondary and tertiary resources	
		b) primary and secondary resources	
		c) primary, secondary, intermediate and tertiary resources	
		d) primary, intermediate and secondary resources	
	7)	140 - 1 - 6 - 1 - 6 - 1 - 1 - 1	
		a) Crude Oil b) Coal c) Hydrogen Energy d) Sunlight	
	8)	Energy Resources which are being used for many decades are known as	
		a) conventional energy sources	
		b) non-conventional energy sources	
		c) primary energy sources	
		d) fuel cells	
	9)	Which of the statements is correct about Solar Energy?	
		a) It is a renewable and conventional source of energy	
		b) It is a non-renewable and non-conventional source of energy	×
		c) It is a renewable and non-conventional source of energy	
		d) It is a non-renewable source of energy	
	10)	) Which of these resources does not produce CO <sub>2</sub> during electricity generation?	
		a) Coal b) Methane e) Uranium d) Biogas	
		) Which of these is the major contributor to world pollution?	
	47	a) Commercial resources c) Non-Commercial Resources	. /
		b) Renewable Resources d) Nuclear Energy	

	ces were considered for large sca	ale use after the oil crisis	of 1973?
a) Conventional Sources	c) Non-Convention	onal Sources	~
b) Non-renewable source	es d) Primary Source	es	
13) Which of the following is	s a renewable resource?		b
a) Solar energy b)	coal c) mineral	d) natural gas	
14) The unit of energy yield rat	io is		
a) joule b)	watt c) joule/Kelvin	d) dimensionless	
15) The only country having a f	full-fledged ministry for Develop	ment of New and Renev	wable
Resources is			
a) India b)	Bangladesh c) USA	d) China	
16) Which of the following poll	lutants are emitted by the burning	g of fossil fuel?	
a) Oxides of Carbon, Nitro	ogen, and Sulphur		1
<ul> <li>b) Oxides of Carbon, Urar</li> </ul>	nium, and Radium		
<ul> <li>c) Calcium Halides and O</li> </ul>	xides of Nitrogen		
d) Noble Gases			
17) Which of the following stat	ements is not true about radioact	tive waste?	
<ul> <li>a) It has radioactivity quot</li> </ul>	tient of dangerous levels.		
b) The disposed radioactive	ve waste is to be guarded for a lo	ng period	X
<ul> <li>c) It has low radioactivity</li> </ul>			
<ul> <li>d) Its radioactivity decreas</li> </ul>			
102 AND TOUR DESCRIPTION OF THE PARTY OF THE	are generated by burning of fossi	il fuel?	,
a) NO and NO <sub>2</sub>	e) NO <sub>2</sub> , NO <sub>3</sub> , and N	N <sub>2</sub> O <sub>5</sub>	X
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
19) Which Uranium isotope is u			1
a) U-235 b) U-234	c) U-215	d) U-218	
20) is power house of			
a) Sun b) moon	c) batteries	d) fuel	
21) What is the pH level of acid			
a) Between 6-8		d) Between 11-14	
22) What does ozone protect th			-
a) Sound waves	The profite for the profit of	UV radiation	_
b) Visible radiation	d) Greenho	ouse effect	
23) Which of the following is the			
	Petrol c) Petroleum	d) Coal	X
24) Which part of a house recei			
a) Roof b)	Side walls c) Floor	d) Doors	1
25) Which of the following pro a) Water b)	vides energy for winds to blow n Sun c) Man	naturally? d) Food	



### N.R colony Bangalore-560019

Department of Physics

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Examination - Certificate course on Renewable Energy Resources

Regis	ster N	10.:52(	10020			
Ansv	ver th	ne all the fo	llowing questions	each question carries two	marks	(25 X 2 = 50)
1	L) W	hich of the	following is a non-	-renewable resource?		
			b) Geothermal		d) Tidal	
2	2) Ti			through	.,	
	a)	Wind	b) Sunlight	e) Oceanic tides	d) Biomass	
3				ot a non-conventional ener		
	a)	Coal	b) Geothermal	c) Tidal	d) Solar	×
4				e energy corporation Ltd. Es		
		1980	b) 2002	c) 1963	d) 1956	X
5	) In	a hydroeled	tric power plant, t	the electric power is obtain		, -
		Chemical		c) Nuclear energy		
		Potential				
6			and the same of th	sources are classified into		
	a)		econdary and tert			
	b		nd secondary reso			
	c)			ediate and tertiary resource		X
	d)			secondary resources	:5	
7				ype of primary resource?		
	a)	Crude Oil		c) Hydrogen Energ	v d) Supliabt	~
8)				peing used for many deca		
٠,	at	convention	nal energy sources	seing used for many deca	ides are known a	IS
	b)		entional energy so			
	c)		nergy sources	urces		
	d)	fuel cells	iergy sources			
9			tatements is some	ot about Calou Europe		
1,				ct about Solar Energy? tional source of energy		
				n-conventional source of en	LOHOWY.	1/
	ct			nventional source of energy		
	d)		renewable source			
10				not produce CO <sub>2</sub> during elec	tricity generation	2
10.000	J) VVI			io a produce co) during elec	LITTLY KELLELALION	
	a)	Coal	b) Methane	e) Uranium	d) Biogas	
	a) 1) Wł	Coal nich of these	b) Methane		d) Biogas	

12) Which of the energy resources were co	onsidered for large scale	ase after the oil crisis of 1973?
a) Conventional Sources	c) Non-Conventiona	
b) Non-renewable sources	d) Primary Sources	*
13) Which of the following is a renewal		
a) Solar energy b) coal	c) mineral	d) natural gas
14) The unit of energy yield ratio is		
a) joule b) watt	c) joule/Kelvin	d) dimensionless
15) The only country having a full-fledged	ministry for Developme	nt of New and Renewable
Resources is		
a) India b) Bangladesh	c) USA	d) China
16) Which of the following pollutants are of		fossil fuel?
a) Oxides of Carbon, Nitrogen, and S		
b) Oxides of Carbon, Uranium, and R		
<ul> <li>c) Calcium Halides and Oxides of Ni</li> </ul>	trogen	
d) Noble Gases		
17) Which of the following statements is n		waste?
a) It has radioactivity quotient of dan		
The disposed radioactive waste is t	to be guarded for a long p	period
c) It has low radioactivity quotient		
<ul> <li>d) Its radioactivity decreases with tim</li> <li>18) Which Oxides of Nitrogen are generate</li> </ul>		-19
a) NO and NO <sub>2</sub>	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>	*
19) Which Uranium isotope is used in nucl		
a) U-235 b) U-234	c) U-215	d) U-218
20) is power house of satellite	0,0 210	4, 0 210
a) Sun b) moon	c) batteries	d) fuel
21) What is the pH level of acid rain?		
a) Between 6-8 b) Between 3-	4 c) 7	d) Between 11-14
22) What does ozone protect the earth from	1?	The second
a) Sound waves	e) Harmful UV	radiation
b) Visible radiation	d) Greenhouse	effect
23) Which of the following is the cleanest	fossil fuel?	
a) Natural gas b) Petrol	c) Petroleum	d) Coal
24) Which part of a house receives majority	y of solar radiation?	
a) Roof b) Side walls	c) Floor	d) Doors
a) Water Sun	y for winds to blow natur	rally?
a) Water b) Sun	c) Man	d) Food

### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr

Examination - Certificate course on Renewable Energy Resources

Register No.: 52010021

er No. : 52 C	10021			
er the all the f	ollowing questions eac	h question carries two m	arks	(25 X 2 = 50)
Which of the	e following is a non-ren	ewable resource?		
a) Solar	b) Geothermal		d) Tidal	
Tidal energy	is energy obtained thro		, , , ,	
a) Wind			d) Biomass	
Which one o			- 6	
at Coal	b) Geothermal	c) Tidal		
When was R				
		. c) 1963		
In a hydroele	ectric power plant, the	electric power is obtained		
		c) Nuclear energy		_
b) Potentia	l energy	el) Energy of water		
Based on us	ability, Energy Resour			
				X
				7
			d) Sunlight	-
Energy Reso	1011 101 101 101 101 101 101 101 101 10			5
a conventi	onal energy sources	B doca for many decade	23 are known a	,—
		oc.		
		out Solar Energy?		
			ov	
e It is a ren	ewable and non-conver	ntional source of energy	6)	
			icity generation?	,
a) Coal	b) Methane			
Which of the	se is the major contribu		, -0	
			esources	
b) Renewab	le Resources	d) Nuclear Energy		1
	which of the a) Solar Tidal energy a) Wind Which one of a Coal When was R a) 1980 In a hydroele a) Chemica b) Potentia Based on us a) primary, b) primary c) primary, d) primary, which of the a) Crude O Energy Resolation of the a) Crude O Energy Resolation of the a) It is a rend b) It is a none which of the a) It is a rend d) It is a none which of the a) Coal Which of the a) Coal Which of the a) Coal Which of the a) Commercial Commercial	Which of the following is a non-ren  a) Solar b) Geothermal  Tidal energy is energy obtained thro  a) Wind b) Sunlight  Which one of the following is not a  a) Coal b) Geothermal  When was Rajasthan renewable end  a) 1980 b) 2002  In a hydroelectric power plant, the o  a) Chemical energy  b) Potential energy  Based on usability, Energy Resource  c) primary, secondary and tertiary  b) primary and secondary resource  c) primary, intermediate and second  Which of the following is not a type  a) Crude Oil b) Coal  Energy Resources which are bein  a) Conventional energy sources  b) non-conventional energy sources  c) primary energy sources  d) fuel cells  Which of the statements is correct at a  a) It is a renewable and convention  b) It is a non-renewable and non-convent  d) It is a non-renewable source of e  Which of these resources does not p  a) Coal b) Methane	Which of the following is a non-renewable resource?  a) Solar b) Geothermal Coal  Tidal energy is energy obtained through  a) Wind b) Sunlight e) Oceanic tides  Which one of the following is not a non-conventional energy  a) Coal b) Geothermal c) Tidal  When was Rajasthan renewable energy corporation Ltd. Esta  a) 1980 b) 2002 c) 1963  In a hydroelectric power plant, the electric power is obtained  a) Chemical energy c) Nuclear energy  b) Potential energy e) Energy of water  Based on usability, Energy Resources are classified into  a) primary, secondary and tertiary resources  b) primary, intermediate and secondary resources  c) primary, intermediate and secondary resources  Which of the following is not a type of primary resource?  a) Crude Oil b) Coal e) Hydrogen Energy  Energy Resources which are being used for many decade  a) conventional energy sources  b) non-conventional energy sources  c) primary energy sources  d) fuel cells  Which of the statements is correct about Solar Energy?  a) It is a renewable and conventional source of energy  b) It is a non-renewable and non-conventional source of energy  d) It is a non-renewable source of energy  Which of these resources does not produce CO2 during electrical Coal b) Methane e) Uranium  Which of these is the major contributor to world pollution?  a) Commercial resources  c) Non-Commercial R	Which of the following is a non-renewable resource?  a) Solar b) Geothermal Coal d) Tidal Tidal energy is energy obtained through  a) Wind b) Sunlight POceanic tides d) Biomass Which one of the following is not a non-conventional energy sources?  a) Coal b) Geothermal c) Tidal d) Solar When was Rajasthan renewable energy corporation Ltd. Established?  a) 1980 b) 2002 c) 1963 d) 1956 In a hydroelectric power plant, the electric power is obtained from the  a) Chemical energy c) Nuclear energy b) Potential energy d) Energy of water Based on usability, Energy Resources are classified into a) primary, secondary and tertiary resources b) primary and secondary resources c) primary, secondary, intermediate and tertiary resources d) primary, intermediate and secondary resources Which of the following is not a type of primary resource? a) Crude Oil b) Coal e) Hydrogen Energy d) Sunlight Energy Resources which are being used for many decades are known as a) conventional energy sources b) non-conventional energy sources c) primary energy sources d) fuel cells Which of the statements is correct about Solar Energy? a) It is a renewable and conventional source of energy b) It is a non-renewable and non-conventional source of energy d) It is a non-renewable and non-conventional source of energy Which of these resources does not produce CO <sub>2</sub> during electricity generation? a) Coal b) Methane e) Uranium d) Biogas Which of these is the major contributor to world pollution? a) Commercial resources c) Non-Commercial Resources

12) Which of the energy resources were	considered for large scal	e use after the oil	crisis of 1973?
a) Conventional Sources	c) Non-Convention	nal Sources	
b) Non-renewable sources			$\times$
13) Which of the following is a renew			
a) Solar energy b) coal		d) natural ga	as A
14) The unit of energy yield ratio is		,	
	c) joule/Kelvin	d) dimension	less
15) The only country having a full-fledge	ed ministry for Developn	nent of New and	Renewable
Resources is			
a) India b) Banglades		d) China	
16) Which of the following pollutants are	e emitted by the burning	of fossil fuel?	
a) Oxides of Carbon, Nitrogen, and			
b) Oxides of Carbon, Uranium, and			
c) Calcium Halides and Oxides of N	Vitrogen		
d) Noble Gases			
17) Which of the following statements is	not true about radioactiv	ve waste?	
a) It has radioactivity quotient of da			. ,
b) The disposed radioactive waste is	s to be guarded for a long	g period	×
c) It has low radioactivity quotient			
d) Its radioactivity decreases with ti		C 10	
<ul><li>18) Which Oxides of Nitrogen are genera</li><li>a) NO and NO<sub>2</sub></li></ul>			
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub>	U <sub>5</sub>	X
19) Which Uranium isotope is used in nu	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
2) U-235 b) U-234	c) U-215	d) 11 210	
20) is power house of satellite	c) 0-213	d) U-218	
2) Sun b) moon	c) batteries	d) fuel	
21) What is the pH level of acid rain?	c) batteries	d) luci	
a) Between 6-8 b) Between 3	3-4 c) 7	d) Between 1	1-14
22) What does ozone protect the earth fro		a) Botween 1	
a) Sound waves	) Harmful U	JV radiation	
b) Visible radiation	d) Greenhou		
23) Which of the following is the cleanes			
A) Natural gas b) Petrol	c) Petroleum	d) Coal	
24) Which part of a house receives major	ity of solar radiation?		
a) Roof b) Side walls		d) Doors	
25) Which of the following provides ener	gy for winds to blow nat		
a) Water b) Sun	c) Man	d) Food	./



### N.R colony Bangalore-560019

*	Dep	partment of Physics		
Du	ration: 1 hr		Øate: 21	2/22
	Examination - Certificate	course on Renewable En		0-100
Regis	ster No.: \$2010072			
	0.0			
Answ	ver the all the following questions ea	ch question carries two m	arks (25 X 2 = 50)	
1	<ul> <li>Which of the following is a non-real</li> </ul>	newable resource?		
	a) Solar b) Geothermal	c) Coal	d) Tidal	
2	2) Tidal energy is energy obtained the	rough		
	a) Wind b) Sunlight	C) Oceanic tides	d) Biomass	
3	<li>Which one of the following is not a</li>	non-conventional energy	sources?	
	a) Coal b) Geothermal	c) Tidal	/d/Solar ×	
4	<ul> <li>When was Rajasthan renewable en</li> </ul>	nergy corporation Ltd. Esta	blished?	
	a) 1980 b) 2002	Ver 1963	d) 1956	
5	) In a hydroelectric power plant, the	electric power is obtained	from the	
	a) Chemical energy	c) Nuclear energy		
	b) Potential energy	,d) Energy of water		
6	) Based on usability, Energy Resou	rces are classified into_		
	a) primary, secondary and tertiar			
	by primary and secondary resource	ces		
	c) primary, secondary, intermedia	ate and tertiary resources	*	
	d) primary, intermediate and sec			
7)	) Which of the following is not a type	e of primary resource?		
	a) Crude Oil b) Coal	Al Hydrogen Energy	d) Sunlight	
8)	Energy Resources which are bei	ng used for many decade	s are known as	
	conventional energy sources			
	b) non-conventional energy source	ces		
	c) primary energy sources			
	d) fuel cells			
9)	) Which of the statements is correct a	bout Solar Energy?		
8	a) It is a renewable and convention	nal source of energy	and the second	
	b) It is a non-renewable and non-c		gy	
	It is a renewable and non-conve	27070		
	d) It is a non-renewable source of			
10	0) Which of these resources does not		city generation?	
	a) Coal b) Methane	c) Uranium	d) Biogas	
11	1) Which of these is the major contrib			
	Commercial resources	c) Non-Commercial R	esources	

d) Nuclear Energy

b) Renewable Resources

12) Which of the energy resources were co	onsidered for large scale	use after the oil ci	risis of 1973?
a) Conventional Sources	c) Non-Conventions	al Sources	
b) Non-renewable sources	Mr.		1
13) Which of the following is a renewal	ble resource?		
a) Solar energy b) coal	c) mineral	d) natural gas	1
14) The unit of energy yield ratio is			
a) joule b) watt	c) joule/Kelvin	d) dimensionle	SS
15) The only country having a full-fledged	ministry for Developm	ent of New and Re	enewable
Resources is			
â India b) Bangladesh	c) USA	d) China	
16) Which of the following pollutants are	emitted by the burning o	f fossil fuel?	
a) Oxides of Carbon, Nitrogen, and S	lulphur		
b) Oxides of Carbon, Uranium, and R	Radium		
<ul> <li>c) Calcium Halides and Oxides of Ni</li> </ul>	trogen		
d) Noble Gases			
17) Which of the following statements is n		e waste?	
a) It has radioactivity quotient of dan	O SALIS CONTRACTOR OF THE SALI		
b) The disposed radioactive waste is	to be guarded for a long	period	1
It has low radioactivity quotient			
d) Its radioactivity decreases with tim		10	
18) Which Oxides of Nitrogen are generate	-/		
	e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O	J <sub>5</sub>	X
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
19) Which Uranium isotope is used in nuc.		d) U-218	1
	c) U-215	u) U-216	
	c) batteries	d) fuel	./
21) What is the pH level of acid rain?	c) batteries	d) laci	
a) Between 6-8 b) Between 3-	4 c) 7	d) Between 11-	-14
22) What does ozone protect the earth from		a) Botte con 11	
a) Sound waves	c) Harmful U	V radiation	
(b) Visible radiation	d) Greenhous		1
23) Which of the following is the cleanest			_
a) Natural gas b) Petrol	c) Petroleum	d) Coal	
24) Which part of a house receives majorit			X
a) Roof b) Side walls	c) Floor	d) Doors	
25) Which of the following provides energ	A STATE OF THE STA	And the same of th	X
a) Water b) Sun	c) Man	d) Food	V
		-	

### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr	
	Examination - Certificate course on Renewable Energy Resources

bate: 21/2/23

Regis	ter No. : 🕞	1010223 S20100)	3	rigy Resources	
Answ	er the all t	he following questions	each question carries two m	arks	(25 X 2 = 50)
41	14.01.1				
1)		f the following is a non-r			
		r b) Geothermal		d) Tidal	
2)		ergy is energy obtained t			
			c) Oceanic tides		
3)	Which o		t a non-conventional energy		
	nay Coal		c) Tidal	d) Solar	
4)	When w	as Rajasthan renewable	energy corporation Ltd. Esta	blished?	
	¹a) 1980	b) 2002		et) 1956	X
5)	In a hydr	oelectric power plant, th	ne electric power is obtained	from the	
	a) Cher	mical energy	c) Nuclear energy		
	b) Pote	ntial energy	ud) Energy of water		
6)	Based o	n usability, Energy Reso	ources are classified into _		
		ary, secondary and terti			
		ary and secondary resou			
			diate and tertiary resources		
		nary, intermediate and s			
7)			pe of primary resource?		
			c) Hydrogen Energy	d) Supliabt	×
8)			eing used for many decade		
-,	ial convi	entional energy sources	enig used for many decade	s are known as	
		conventional energy sou			
		ary energy sources	ices		
	d) fuel o				
0)	The state of the s		-1		
"		the statements is correct			
		renewable and conventi			
	c) It is a	renewable and non-con	-conventional source of energy ventional source of energy	sy 🗸	
		non-renewable source of			
10			ot produce CO₂ during electri	oitu oon anati a 2	
10,	a) Coal	b) Methane			
11		350	le) Oranium	d) Biogas	
		nercial resources	ibutor to world pollution?		
		wable Resources	c) Non-Commercial Re	sources	
	b) Renev	wante Resources	d) Nuclear Energy		

		considered for large so		1 crisis of 1973?
		c) Non-Conventional Sources		
b) Non-renew	able sources	d) Primary Source	ces	
13) Which of the f	following is a renew	wable resource?		2
(a) Solar energ	gy b) coal	c) mineral	d) natural g	as
	gy yield ratio is			
a) joule		c) joule/Kelvin	d) dimension	nless \prec
15) The only countr		ged ministry for Develo		
Resources is				
a) India	b) Banglade	esh e) USA	d) China	×
16) Which of the fo	llowing pollutants ar	re emitted by the burning		
	arbon, Nitrogen, and			
	arbon, Uranium, and			
	lides and Oxides of			
d) Noble Gase				
17) Which of the fo	llowing statements is	s not true about radioac	tive waste?	
	activity quotient of da			
		is to be guarded for a lo	ng period	1
	adioactivity quotient			
d) Its radioacti	vity decreases with t	ime.		
18) Which Oxides o	f Nitrogen are gener	ated by burning of foss	il fuel?	
a) NO and NO		c) NO2, NO3, and I		X
by N₂O₅ and N	$I_2O_3$	d) NO3 and N2O5		
19) Which Uranium	isotope is used in nu	uclear power plants?		
	b) U-234	c) U-215	d) U-218	
20) is pow	ver house of satellite		35.	
a) Sun		c) batteries	d) fuel	
21) What is the pH l	evel of acid rain?		Charles Company	
a) Between 6-8	b) Between	3-4 -0)7	d) Between	11-14 🗶
22) What does ozon	e protect the earth fro	om?		
(a) Sound wave	s	c) Harmfu	UV radiation	
b) Visible radia	ation	d) Greenho		X
23) Which of the fol	llowing is the cleanes	st fossil fuel?		
a) Natural gas	b) Petrol	Petroleum	d) Coal	~
24) Which part of a	house receives major	rity of solar radiation?		^
a) Roof	b) Side wall		d) Doors	
25) Which of the fol	lowing provides ene	rgy for winds to blow r	1.00	
a) Water	b) Sun	c) Man	d) Food	

### (B)



### **APS college of Arts and Science**

### N.R colony Bangalore-560019

Department of Physics

Бер	artificite of Frigues	
Duration: 1 hr		Date: 21 2 23
Examination - Certificate	course on Renewable Ene	rgy Resources
Register No.: S 2010024		
Answer the all the following questions ea	ch question carries two ma	rks (25 X 2 = 50)
- Address of the second of the	on question carries the ma	(23 / 2 - 30)
1) Which of the following is a non-rer	newable resource?	
a) Solar b) Geothermal	c) Coal	d) Tidal
2) Tidal energy is energy obtained thi	1898 LANGO SCON	-,
a) Wind b) Sunlight	Oceanic tides	d) Biomass
3) Which one of the following is not a		
a) Coal b) Geothermal	√e) Tidal	d) Solar 😾
4) When was Rajasthan renewable er		
a) 1980 b) 2002	c) 1963	d) 1956
5) In a hydroelectric power plant, the		
a) Chemical energy	c) Nuclear energy	
b) Potential energy	d) Energy of water	
6) Based on usability, Energy Resou	irces are classified into	
a) primary, secondary and tertiar		
b) primary and secondary resource		
er primary, secondary, intermedia		~
d) primary, intermediate and sec	Services (Service Services Ser	~
7) Which of the following is not a type		
a) Crude Oil b) Coal	e) Hydrogen Energy	d) Sunlight
8) Energy Resources which are bei		
a) conventional energy sources		
(b) non-conventional energy source	ces	
c) primary energy sources		*
d) fuel cells		
9) Which of the statements is correct a	about Solar Energy?	
a) It is a renewable and convention	nal source of energy	-
b) It is a non-renewable and non-c	conventional source of energ	gy 🗶
<ul> <li>c) It is a renewable and non-conve</li> </ul>		
d) It is a non-renewable source of		
10) Which of these resources does not		
a) Coal b) Methane	e) Uranium	d) Biogas
11) Which of these is the major contrib		
a) Commercial resources	c) Non-Commercial Re	esources
<ul><li>b) Renewable Resources</li></ul>	d) Nuclear Energy	

12) which of the energy i				oil crisis of 1973
a) Conventional Sources				×
	b) Non-renewable sources		S	
13) Which of the follow	ring is a renew	vable resource?		
a) Solar energy	b) coal	c) mineral	d) natural	gas 🗡 📉
14) The unit of energy yie	eld ratio is	_		
a) joule	(eb) watt	c) joule/Kelvin	d) dimensi	onless
15) The only country hav	ing a full-fledg	ed ministry for Developr	ment of New an	d Renewable
Resources is				
a) India	b) Banglade	sh c) USA	d) China	X
16) Which of the following	ng pollutants ar	e emitted by the burning	of fossil fuel?	
a) Oxides of Carbon	, Nitrogen, and	Sulphur		
b) Oxides of Carbon	, Uranium, and	l Radium		
c) Calcium Halides	and Oxides of l	Nitrogen		
d) Noble Gases				
17) Which of the following	ng statements is	not true about radioactiv	ve waste?	
<ul> <li>a) It has radioactivit</li> </ul>	y quotient of da	angerous levels.		
<ul> <li>b) The disposed radi</li> </ul>	oactive waste i	s to be guarded for a lon	g period	
(e) It has low radioac	tivity quotient			
d) Its radioactivity d	ecreases with t	ime.		
18) Which Oxides of Nitr	ogen are gener	ated by burning of fossil	fuel?	
NO and NO2		c) NO2, NO3, and N2	2O <sub>5</sub>	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>		d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
19) Which Uranium isoto	pe is used in nu	iclear power plants?		
a) U-235 b) U-	234	(e) U-215	d) U-218	X
20) is power ho	use of satellite			
(a) Sun b) mo	oon	c) batteries	d) fuel	
21) What is the pH level of	of acid rain?			
a) Between 6-8	b) Between	3-4 c) 7	d) Between	111-14 🗶
22) What does ozone prot	ect the earth fr			
a) Sound waves		(e) Harmful 1	UV radiation	
b) Visible radiation		d) Greenhou	ise effect	
23) Which of the following	g is the cleane	st fossil fuel?		
(a) Natural gas	b) Petrol	c) Petroleum	d) Coal	
24) Which part of a house	receives majo	rity of solar radiation?		
a) Roof	b) Side wall	s c) Floor	d) Doors	
25) Which of the following	g provides ene	rgy for winds to blow na	turally?	
(a) Water	b) Sun	c) Man	d) Food	X

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### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr Date: 21 2 23 Examination - Certificate course on Renewable Energy Resources Register No.: 520 10025 Answer the all the following questions each question carries two marks  $(25 \times 2 = 50)$ 1) Which of the following is a non-renewable resource? a) Solar b) Geothermal d) Tidal 2) Tidal energy is energy obtained through a) Wind b) Sunlight Oceanic tides d) Biomass 3) Which one of the following is not a non-conventional energy sources? b) Geothermal o Tidal 4) When was Rajasthan renewable energy corporation Ltd. Established? a) 1980 W12002 c) 1963 d) 1956 5) In a hydroelectric power plant, the electric power is obtained from the a) Chemical energy c) Nuclear energy b) Potential energy d) Energy of water 6) Based on usability, Energy Resources are classified into primary, secondary and tertiary resources b) primary and secondary resources c) primary, secondary, intermediate and tertiary resources d) primary, intermediate and secondary resources 7) Which of the following is not a type of primary resource? a) Crude Oil b) Coal Ac Hydrogen Energy 8) Energy Resources which are being used for many decades are known as a) conventional energy sources b) non-conventional energy sources c) primary energy sources d) fuel cells 9) Which of the statements is correct about Solar Energy? (a) It is a renewable and conventional source of energy b) It is a non-renewable and non-conventional source of energy c) It is a renewable and non-conventional source of energy d) It is a non-renewable source of energy 10) Which of these resources does not produce CO2 during electricity generation? a) Coal b) Methane c) Uranium d) Biogas 11) Which of these is the major contributor to world pollution? a) Commercial resources c) Non-Commercial Resources \ Renewable Resources

d) Nuclear Energy

12	2) W	hich of the energy	resources were co	onsidered for large scal	le use after the oil cri	sis of 1973
	a)	Conventional S	lources	o) Non-Convention	nal Sources	1
	b)	Non-renewable	sources	d) Primary Source	s	
13		hich of the follow				
		Solar energy			d) natural gas	6
14		e unit of energy y			a) naturar gas	
		joule	5-72	c) joule/Kelvin	d) dimensionless	
15)	Th	e only country has		ministry for Developr		ewable
	Re	sources is		,	or riow and rech	
	à)-	Índia	b) Bangladesh	c) USA	d) China	
16)	WI:	nich of the followi		emitted by the burning	of fossil fuel?	
	4	Oxides of Carbon	n, Nitrogen, and S	ulphur		
	b)	Oxides of Carbon	n, Uranium, and R	adium		-
	c)	Calcium Halides	and Oxides of Ni	trogen		
		Noble Gases				
17)	Wh	ich of the followi	ng statements is n	ot true about radioactiv	re waste?	
	a)	It has radioactivit	ty quotient of dang	gerous levels.		
	b)	The disposed rad	ioactive waste is t	o be guarded for a long	g period	
		It has low radioad				
		Its radioactivity of				
18	) Wh	ich Oxides of Niti	ogen are generate	d by burning of fossil		
	- 3	NO and NO <sub>2</sub>		c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub>	O <sub>5</sub>	
10		N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>		d) $NO_3$ and $N_2O_5$		
19,	) Wh	ich Uranium isoto				
20)	. 83	U-235 b) U-		c) U-215	ld) U-218	X
20,		is power ho				
21)		Sun b) mo		c) batteries	d) fuel	
21)		at is the pH level			. –	
22)		Between 6-8			d) Between 11-14	X
22)		at does ozone prot	ect the earth from			
		Sound waves		(a) Harmful U		
221		Visible radiation		d) Greenhous	se effect	
23)		ich of the followin				
24		Natural gas	b) Petrol	c) Petroleum	d) Coal	
Z4)				of solar radiation?	Tax ES	
25)		Roof	b) Side walls		d) Doors	
23)				for winds to blow nati	and the second second	
	a)	Water	b) Sun	c) Man	d) Food	

### N.R colony Bangalore-560019

Department of Physics

ouration:	1 hr	
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Examination - Certificate course on Rene wable Energy Resources

Bate: 21/2/23

Register No. : \$2010086

nswe	er the all the fo	llowing questions ead	ch question carries two m	narks	(25 X 2 = 50
1)	Which of the	following is a non-ren	newable resource?		
	a) Solar	b) Geothermal	_c) Coal	d) Tidal	1
2)	Tidal energy	is energy obtained thr	ough		
	a) Wind	b) Sunlight		d) Biomass	
3)	Which one of	the following is not a	non-conventional energy		
	a) Coal	b) Geothermal		d) Solar	X
4)	When was Ra	ajasthan renewable en	ergy corporation Ltd. Esta		
	a) 1980	-bt 2002	c) 1963	d) 1956	
5)	In a hydroele	ctric power plant, the	electric power is obtained	A POST CONTRACTOR	
	a) Chemical		c) Nuclear energy		
	Potential	energy	d) Energy of water		X
6)	Based on usa	ability, Energy Resou	rces are classified into _		
		secondary and tertiary			
		nd secondary resource			
			te and tertiary resources	0	
		intermediate and seco			
		following is not a type			
	a) Crude Oil		-c) Hydrogen Energy	d) Sunlight	
8)	Energy Reso		ng used for many decade		
		nal energy sources	ig asea for many account	es are known a	
		entional energy source	20		
		nergy sources			1
	d) fuel cells				*
9)		statements is correct al	oout Solar Energy?		
		ewable and convention			
			onventional source of ener	OV	
	c) It is a rene	ewable and non-conver	ntional source of energy	БУ	X
		renewable source of e			
10)			produce CO₂ during electr	icity generation	?
	a) Coal	b) Methane	e) Uranium	d) Biogas	
11)	Which of these		itor to world pollution?	-70003	
		al resources	c) Non-Commercial R	esources	
	b) Renewabl		d) Nuclear Energy		11

12) Which of the	energy resources were	considered for large so	cale use after the oil c	risis of 1973?
a) Convent	onal Sources	-e) Non-Convent	ional Sources	
	ewable sources			
	following is a renew			100
	ergy b) coal		d) natural gas	A
	ergy yield ratio is		)	
a) joule	5350 (I)	c) joule/Kelvin	d) dimensionle	SS
15) The only cour	ntry having a full-fledge			
Resources is				
India	b) Banglade	sh c) USA	d) China	
16) Which of the	following pollutants are	e emitted by the burning	ng of fossil fuel?	
	Carbon, Nitrogen, and			
b) Oxides of	Carbon, Uranium, and	Radium		
c) Calcium I	Halides and Oxides of I	Vitrogen		
d) Noble Ga	ses			
	following statements is		ctive waste?	
	oactivity quotient of da			
	sed radioactive waste i	s to be guarded for a le	ong period	
	radioactivity quotient			
	ctivity decreases with ti			
	of Nitrogen are genera			
a) NO and N		c) NO <sub>2</sub> , NO <sub>3</sub> , and	$N_2O_5$	
b) N <sub>2</sub> O <sub>5</sub> and		d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
	m isotope is used in nu			1
(a) U-235	A-Sept Cold Cold Cold Cold Cold Cold Cold Cold	c) U-215	d) U-218	
and the second s	ower house of satellite		1) 4 1	
	b) moon	_c) batteries	d) fuel	X
7	I level of acid rain?	. 4	D.D	
	5-8 b) Between 1		d) Between 11-	-14
\ 0 1	one protect the earth fro		1 7 7 1:-4:	
<ul><li>a) Sound wa</li><li>b) Visible ra</li></ul>			l UV radiation	
			ouse effect	
a) Natural ga	following is the cleanes  b) Petrol		A) (C - 1	
		c) Petroleum	d) Coal	
a) Roof	a house receives major b) Side walls		d) Doors	
The state of the s	following provides energy		12	X
a) Water				
a) water	_b) Sun	c) Man	d) Food	

### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr

Bate: 21 2 23

Examination - Certificate course on Renewable Energy Resources
Register No.: S 2010 0 2 →

nswe	er the all the following questions ea	ch question carries two n	narks	(25 X 2 = 50
11	Which of the full			
1)	and tome tring to a front fer	a service of the serv		
21	a) Solar b) Geothermal	Coal	d) Tidal	
2)	67 - 67 - 10 miles and			
	a) Wind b) Sunlight	, , , , , , , , , , , , , , , , , , , ,		S
3)	Which one of the following is not a		sources?	
	a) Coal b) Geothermal		d) Solar	X
4)	When was Rajasthan renewable er	nergy corporation Ltd. Esta	ablished?	
	a) 1980 b) 2002	c) 1963	d) 1956	
5)	In a hydroelectric power plant, the	electric power is obtained	d from the	
	at Chemical energy	c) Nuclear energy		
	b) Potential energy	d) Energy of water		X
6)	Based on usability, Energy Resou	rces are classified into		
	a) primary, secondary and tertiary			
	primary and secondary resource			
	c) primary, secondary, intermedia			1
	d) primary, intermediate and sec			*
7)	Which of the following is not a type	-		
		/e) Hydrogen Energy	d\ Cupliabt	
8)				
٠,	Energy Resources which are being a) conventional energy sources	ig used for many decad	es are known	as
	b) non-conventional energy sources	es		
	/-/ p / 5.10.8 / 5501.005			X
0)	d) fuel cells			
9)	Which of the statements is correct a	bout Solar Energy?		
	a) It is a renewable and convention	nal source of energy		
	b) It is a non-renewable and non-conve		gy	X
	) made and non convo			,
10)	d) It is a non-renewable source of		W 87	
10)	Which of these resources does not			n?
441	a) Coal b) Methane	c) Uranium	d) Biogas	X
11)	Which of these is the major contribu			
-	a) Commercial resources	c) Non-Commercial R	esources	
	b) Renewable Resources	d) Nuclear Energy		1/

12) Which of the energy resources were co	onsidered for large scale u	ise after the oil cr	isis of 1973?
a) Conventional Sources	c) Non-Conventional	Sources	
b) Non-renewable sources			X
13) Which of the following is a renewa			
a) Solar energy b) coal		d) natural gas	/ X
14) The unit of energy yield ratio is		,	
a) joule b) watt		d'dimensionles	S
15) The only country having a full-fledged			
Resources is			
a) India b) Bangladesh	ı c) USA	d) China	
16) Which of the following pollutants are		fossil fuel?	
a) Oxides of Carbon, Nitrogen, and S			
b) Oxides of Carbon, Uranium, and F			
<ul> <li>c) Calcium Halides and Oxides of Ni</li> </ul>	trogen		
d) Noble Gases			
17) Which of the following statements is n		waste?	
a) It has radioactivity quotient of dan			
b) The disposed radioactive waste is	to be guarded for a long p	eriod	
It has low radioactivity quotient			
d) Its radioactivity decreases with tim			
18) Which Oxides of Nitrogen are generate			
	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub>		
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
19) Which Uranium isotope is used in nuc			,
	ey U-215	d) U-218	X
20) is power house of satellite	=		
a) Sun b) moon	c) batteries	d) fuel	
21) What is the pH level of acid rain?		0.5	
a) Between 6-8 b) Between 3-		d) Between 11-1	14
22) What does ozone protect the earth from		F 44	
a) Sound waves	(A) Harmful UV		. >
b) Visible radiation	d) Greenhouse	effect	
23) Which of the following is the cleanest		D C 1	
a) Natural gas b) Petrol	c) Petroleum	d) Coal	
24) Which part of a house receives majorit		d) D	
a) Roof b) Side walls		d) Doors	X
25) Which of the following provides energ  a) Water  b) Sun			
a) Water b) Sun	c) Man	d) Food	X



### N.R colony Bangalore-560019

Department of Physics

<sup>*</sup> Du	ratio	n: 1 hr				Date: 21/2/23
Regis	ter N	lo.: S201		e course on Renewable E	nergy Resources	
Answ	er th	e all the fo	llowing questions ea	ach question carries two	marks	(25 X 2 = 50)
1	۱ ۱۸/	hich of the	following is a non-re	nowahla rasaursa2		
-		Solar	b) Geothermal	Coal	d) Tidal	
2			s energy obtained th		d) Ildai	
		Wind	b) Sunlight	e) Oceanic tides	d) Biomass	
3				a non-conventional energ	(10° - 100 -	
		Coal	b) Geothermal	Tidal	d) Solar	X
4	) W	hen was Ra	jasthan renewable e	nergy corporation Ltd. Es		
		1980	Ub) 2002	c) 1963	d) 1956	
5	) In	a hydroeled	ctric power plant, the	e electric power is obtaine	ed from the	
	a)	Chemical	energy	c) Nuclear energy	100 m	
	b)	Potential	energy	d) Energy of water		
6	) Ba	ased on usa	bility, Energy Reso	urces are classified into		
	a)	primary, s	econdary and tertia	ry resources		
	b)	primary a	nd secondary resour	ces	- 1	
	ct	primary, s	econdary, intermed	iate and tertiary resource	s	
	d)	primary,	intermediate and se	condary resources		
7)	W	hich of the	following is not a typ	e of primary resource?		
	a)	Crude Oil	b) Coal	√e∬Hydrogen Energy	d) Sunlight	
8)	Er	nergy Resor	urces which are be	ing used for many deca	des are known a	S
	a)	conventio	nal energy sources			
	b)	non-conve	entional energy sour	ces	-/	
			nergy sources		X	
		fuel cells				
9			statements is correct	-		
				onal source of energy		
	b)			conventional source of en		
	ver)		rwanie and non-conv -renewable source of	entional source of energy		
11				. energy t produce CO2 during elec	tricity gonoration	2
		Coal	b) Methane	c) Uranium	d) Biogas	X
1	•			butor to world pollution?	a) biogas	
1.			ial resources	c) Non-Commercial	Resources	
	b)		e Resources	d) Nuclear Energy	Resources	X
	D)	Menewabi	c Nesources	W Nuclear Ellergy		

12) Which of the energy resources were co	nsidered for large scale use after the oil crisis o	of 1973?
a) Conventional Sources	c) Non-Conventional Sources	
b) Non-renewable sources	d) Primary Sources	
13) Which of the following is a renewal	ole resource?	4.4
a) Solar energy b) coal		1
14) The unit of energy yield ratio is	2) 8	
	c) joule/Kelvin d) dimensionless	
	ministry for Development of New and Renewa	able
Resources is	F	
a) India b) Bangladesh	c) USA d) China	
16) Which of the following pollutants are e		
Oxides of Carbon, Nitrogen, and S		
b) Oxides of Carbon, Uranium, and R		
c) Calcium Halides and Oxides of Nit		
d) Noble Gases		
17) Which of the following statements is no	ot true about radioactive waste?	
a) It has radioactivity quotient of dans		
b) The disposed radioactive waste is t		
ve) It has low radioactivity quotient		
d) Its radioactivity decreases with tim	e.	
18) Which Oxides of Nitrogen are generate	ed by burning of fossil fuel?	
	)	
a) NO and NO <sub>2</sub>	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub>	
	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>	
<ul> <li>b) N<sub>2</sub>O<sub>5</sub> and N<sub>2</sub>O<sub>3</sub></li> <li>19) Which Uranium isotope is used in nucl</li> </ul>	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl a) U-235 b) U-234	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl a) U-235 b) U-234  20) is power house of satellite	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218 c) batteries d) fuel	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain?	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218 c) batteries d) fuel	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218 c) batteries d) fuel	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-2  22) What does ozone protect the earth from	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218 c) batteries d) fuel 4 c) 7 d) Between 11-14	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-2  22) What does ozone protect the earth from a) Sound waves	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218 c) batteries d) fuel 4 c) 7 d) Between 11-14 e) Harmful UV radiation d) Greenhouse effect	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-2  22) What does ozone protect the earth from a) Sound waves b) Visible radiation	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218 c) batteries d) fuel 4 c) 7 d) Between 11-14 e) Harmful UV radiation d) Greenhouse effect	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nuclea a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain?  a) Between 6-8 b) Between 3-2  22) What does ozone protect the earth from a) Sound waves b) Visible radiation  23) Which of the following is the cleanest in a) Natural gas b) Petrol  24) Which part of a house receives majority	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218 c) batteries d) fuel 4 c) 7 d) Between 11-14 e) Harmful UV radiation d) Greenhouse effect fossil fuel? c) Petroleum d) Coal	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucle a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain?  a) Between 6-8 b) Between 3-2  22) What does ozone protect the earth from a) Sound waves b) Visible radiation  23) Which of the following is the cleanest to a) Natural gas b) Petrol  24) Which part of a house receives majority a) Roof b) Side walls	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218 c) batteries d) fuel 4 c) 7 d) Between 11-14 e) Harmful UV radiation d) Greenhouse effect fossil fuel? c) Petroleum d) Coal y of solar radiation? c) Floor d) Doors	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nuclea a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain?  a) Between 6-8 b) Between 3-2  22) What does ozone protect the earth from a) Sound waves b) Visible radiation  23) Which of the following is the cleanest in a) Natural gas b) Petrol  24) Which part of a house receives majority	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218 c) batteries d) fuel 4 c) 7 d) Between 11-14 e) Harmful UV radiation d) Greenhouse effect fossil fuel? c) Petroleum d) Coal y of solar radiation? c) Floor d) Doors	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucle a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain?  a) Between 6-8 b) Between 3-2  22) What does ozone protect the earth from a) Sound waves b) Visible radiation  23) Which of the following is the cleanest to a) Natural gas b) Petrol  24) Which part of a house receives majority a) Roof b) Side walls	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 d) U-218 c) batteries d) fuel 4 c) 7 d) Between 11-14 e) Harmful UV radiation d) Greenhouse effect fossil fuel? c) Petroleum d) Coal y of solar radiation? c) Floor d) Doors	



### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr **Examination - Certificate course on Renewable Energy Resources**  Bate: 21 2 | 23

	on the all the fall of the second		t (asys is
nswe	ver the all the following questions each qu	uestion carries two ma	<u>rks</u> (25 X 2 = 5
1)	) Which of the following is a non-renewa	able resource?	
		e) Coal	d) Tidal
2)	) Tidal energy is energy obtained through	h	
	a) Wind b) Sunlight	e Oceanic tides	d) Biomass
3)	) Which one of the following is not a nor	-conventional energy s	ources?
	a) Coal b) Geothermal	_c) Tidal	d) Solar
4)	) When was Rajasthan renewable energy	corporation Ltd. Estab	lished?
	a) 1980 b) 2002	c) 1963	d) 1956
5)	) In a hydroelectric power plant, the elec	tric power is obtained	from the
	a) Chemical energy	c) Nuclear energy	
	b) Potential energy	d) Energy of water	X
6)	) Based on usability, Energy Resources	are classified into	
	a) primary, secondary and tertiary res	ources	
	b) primary and secondary resources		
	c) primary, secondary, intermediate a	nd tertiary resources	
	d) primary, intermediate and second	ary resources	
7)	Which of the following is not a type of	primary resource?	
		c) Hydrogen Energy	d) Sunlight
8)			
	a) conventional energy sources	,	
	b) non-conventional energy sources		
	c) primary energy sources		X
	d) fuel cells		,
9)	) Which of the statements is correct about	t Solar Energy?	
	a) It is a renewable and conventional s		
	b) It is a non-renewable and non-conve		gy
	c) It is a renewable and non-conventio		· ×
	d) It is a non-renewable source of ener	gy	
10	0) Which of these resources does not prod	duce CO2 during electric	city generation?
	a) Coal b) Methane	e) Uranium	d) Biogas
11	1) Which of these is the major contributor	to world pollution?	
	a) Commercial resources	c) Non-Commercial Re	esources
	b) Renewable Resources	d) Nuclear Energy	

12) Which of the energy resources were	considered for large sca	ale use after the or	il crisis of 1973
a) Conventional Sources	e) Non-Convention	onal Sources	
b) Non-renewable sources	d) Primary Source		
13) Which of the following is a renew			
a) Solar energy b) coal		d) natural s	as X
14) The unit of energy yield ratio is			
	c) joule/Kelvin	d) dimensio	nless
15) The only country having a full-fledg			
Resources is			
a) India b) Banglade	esh c) USA	d) China	
16) Which of the following pollutants as	re emitted by the burning	g of fossil fuel?	
a) Oxides of Carbon, Nitrogen, and	d Sulphur		
b) Oxides of Carbon, Uranium, and			
c) Calcium Halides and Oxides of	Nitrogen		
d) Noble Gases			
17) Which of the following statements is	s not true about radioact	ive waste?	
<ul> <li>a) It has radioactivity quotient of d</li> </ul>			
b) The disposed radioactive waste	1.75	ng period	
e) It has low radioactivity quotient			
d) Its radioactivity decreases with			
18) Which Oxides of Nitrogen are gener			
	c) NO <sub>2</sub> , NO <sub>3</sub> , and N	N <sub>2</sub> O <sub>5</sub>	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
19) Which Uranium isotope is used in m			
a) U-235 b) U-234	c) U-215	d) U-218	X
20) is power house of satellite		D C 1	
a) Sun b) moon	c) batteries	d) fuel	
21) What is the pH level of acid rain?	2.4	N.D.	11.14 Y
a) Between 6-8 b) Between		d) Between	11-14
22) What does ozone protect the earth fr		TB7 41-41	
a) Sound waves		UV radiation	
b) Visible radiation	d) Greenho	ouse effect	
23) Which of the following is the cleane		J) Coal	1
a) Natural gas b) Petrol	c) Petroleum	d) Coal	
<ul><li>24) Which part of a house receives majo</li><li>a) Roof</li><li>b) Side wall</li></ul>		d) Dagge	×
25) Which of the following provides end	no contract of the contract of	d) Doors	~
		30.000 - 0.000 - 0.000 - 0.000	~
a) Water b) Sun	c) Man	d) Food	_

## N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr

Examination - Certificate course on Renewable Energy Resources

Pate: 21/2/23

		lo.:S201				
Insi	wer th	e all the fo	llowing questions ead	ch question carries two ma	rks	(25 X 2 = 50)
	1) W	hich of the	following is a non-ren	ewable resource?		
		Solar	b) Geothermal	Lc) Coal	d) Tidal	
	2) Ti	dal energy i	s energy obtained thr	10 M 1 (500) (100)		
		Wind	b) Sunlight	c) Oceanic tides	d) Biomass	/
3	3) W	hich one of	the following is not a	non-conventional energy s	ources?	
		Coal	b) Geothermal	c) Tidal	d) Solar	
4	4) W	hen was Ra	jasthan renewable en	ergy corporation Ltd. Estab	7754	
		1980	45) 2002	c) 1963	d) 1956	
	5) In	a hydroele	ctric power plant, the	electric power is obtained	from the	
	a)	Chemical	energy	c) Nuclear energy		
	b)	Potential	energy	d) Energy of water		
6	5) Ba	ased on usa	ability, Energy Resou	rces are classified into		
	a)		secondary and tertiary			
	b)	primary a	nd secondary resourc	es		
	c)	primary,	secondary, intermedia	te and tertiary resources		
	Let	primary,	intermediate and seco	ondary resources		
7	) W	hich of the	following is not a type	of primary resource?		
	a)	Crude Oi	b) Coal	K) Hydrogen Energy	d) Sunlight	
8	) Er	ergy Reso	urces which are beir	ng used for many decade		as
			nal energy sources			
	b)	non-conv	entional energy source	es		
	c)	primary e	nergy sources			
	d)	fuel cells				
9	) W	hich of the	statements is correct a	bout Solar Energy?		
	a)	It is a rene	ewable and convention	nal source of energy		
	b)			onventional source of energ	У	
	40)	It is a rene	ewable and non-conve	ntional source of energy		
			-renewable source of e			
1	.0) W	hich of thes	e resources does not p	produce CO <sub>2</sub> during electric	ity generation	1?
	7.50	Coal	b) Methane	(e) Uranium	d) Biogas	
1				utor to world pollution?		
	(a)		ial resources	c) Non-Commercial Re	sources	
	b)	Renewabl	e Resources	d) Nuclear Energy	L	

12) Which of the energy resources were	considered for large sca	ale use after the oil crisis o	f 1973?	
(a) Conventional Sources	c) Non-Convention	X		
b) Non-renewable sources	d) Primary Source	d) Primary Sources		
13) Which of the following is a renew	able resource?	2		
(a) Solar energy b) coal		d) natural gas		
14) The unit of energy yield ratio is		_		
a) joule b) watt	c) joule/Kelvin	d) dimensionless	1	
15) The only country having a full-fledg			ble	
Resources is				
(a) India b) Banglade	sh c) USA	d) China		
16) Which of the following pollutants ar				
a) Oxides of Carbon, Nitrogen, and		,		
b) Oxides of Carbon, Uranium, and		X		
(c) Calcium Halides and Oxides of I				
d) Noble Gases				
Which of the following statements is	not true about radioact	ive waste?		
a) It has radioactivity quotient of da				
b) The disposed radioactive waste i		ng period		
It has low radioactivity quotient				
d) Its radioactivity decreases with t	ime.			
18) Which Oxides of Nitrogen are generated	ated by burning of foss:	l fuel?		
(a) NO and NO <sub>2</sub>	c) NO2, NO3, and I			
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>	474		
19) Which Uranium isotope is used in nu	clear power plants?			
a) U-235 b) U-234	c) U-215	d) U-218		
20) is power house of satellite				
Sun b) moon	c) batteries	d) fuel		
21) What is the pH level of acid rain?				
a) Between 6-8 b) Between	3-4 c) 7	d) Between 11-14		
22) What does ozone protect the earth from	om?			
a) Sound waves	(c) Harmfu	UV radiation		
b) Visible radiation	d) Greenho			
23) Which of the following is the cleaner	st fossil fuel?			
(a) Natural gas b) Petrol	c) Petroleum	d) Coal		
24) Which part of a house receives major	rity of solar radiation?			
(a) Roof b) Side wall	2	d) Doors		
25) Which of the following provides ene	rgy for winds to blow r	aturally?		
a) Water b) Sun	c) Man	d) Food		
	CONTRACTOR OF STANDARD	4.69.513-25.97.53		

### N.R colony Bangalore-560019

Department of Physics

Dura	tion: 1 hr				Date: 21 2 23
	Ex	amination - Certificate	course on Renewable En	ergy Resources	
Registe	er No. : 5 C	201033			
Answe	r the all the i	following questions ea	ch question carries two m	arks	(25 X 2 = 50)
1)	Which of th	e following is a non-rer	newable resource?		
	a) Solar	b) Geothermal	C) Coal	d) Tidal	
2)	Tidal energy	y is energy obtained thr	ough		
	a) Wind	(b) Sunlight	c) Oceanic tides	d) Biomass	X
3)	Which one	of the following is not a	non-conventional energy	sources?	
	\a) Coal	b) Geothermal	c) Tidal	d) Solar	
4)	When was I	Rajasthan renewable er	ergy corporation Ltd. Esta	blished?	
	a) 1980	Vb) 2002	c) 1963	d) 1956	
5)	In a hydroe	lectric power plant, the	electric power is obtained	from the	
	a) Chemic	al energy	c) Nuclear energy		
	b) Potenti	al energy	d) Energy of water	L	
6)	Based on u	sability, Energy Resou	rces are classified into _		
	a) primar	secondary and tertiar	v resources		

tc) Hydrogen Energy

d) Sunlight

d) Biogas

b) primary and secondary resources

b) Coal

a) conventional energy sources b) non-conventional energy sources

c) primary energy sources

a) Commercial resources

b) Renewable Resources

a) Crude Oil

d fuel cells

a) Coal

c) primary, secondary, intermediate and tertiary resources

8) Energy Resources which are being used for many decades are known as

10) Which of these resources does not produce CO2 during electricity generation?

~c) Uranium

d) Nuclear Energy

c) Non-Commercial Resources

by primary, intermediate and secondary resources 7) Which of the following is not a type of primary resource?

9) Which of the statements is correct about Solar Energy? a) It is a renewable and conventional source of energy

d) It is a non-renewable source of energy

b) Methane

11) Which of these is the major contributor to world pollution?

b) It is a non-renewable and non-conventional source of energy It is a renewable and non-conventional source of energy

12) Which of the energy resources were co	nsidered for large scale	use after the oil cris	is of 1973?
a) Conventional Sources	c) Non-Conventiona	al Sources	
(b) Non-renewable sources		X	
13) Which of the following is a renewal			
a) Solar energy (b) coal		d) natural gas	X
14) The unit of energy yield ratio is	-)	a) natural gas	1
	c) joule/Kelvin	d dimensionless	
15) The only country having a full-fledged			ewahle
Resources is			
a) India b) Bangladesh	c) USA	d) China	
16) Which of the following pollutants are e	mitted by the burning of		
<ul> <li>a) Oxides of Carbon, Nitrogen, and St</li> </ul>	ulphur		
b) Oxides of Carbon, Uranium, and R	adium	X	
c) Calcium Halides and Oxides of Nit	rogen		
d) Noble Gases			
17) Which of the following statements is no	ot true about radioactive	waste?	
a) It has radioactivity quotient of dang			
b) The disposed radioactive waste is to	o be guarded for a long	period	
It has low radioactivity quotient			
d) Its radioactivity decreases with time			
<ul><li>18) Which Oxides of Nitrogen are generate</li><li>a) NO and NO<sub>2</sub></li></ul>			
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O	5	
	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
19) Which Uranium isotope is used in nucle a) U-235 b) U-234		ATTOTO S	
20) is power house of satellite	c) U-215	d) U-218	
a) Sun b) moon	c) batteries	d) fuel	
21) What is the pH level of acid rain?	c) batteries	d) fuel	
a) Between 6-8 b) Between 3-4	c) 7	d) Between 11-14	1
22) What does ozone protect the earth from		a) Between 11-14	
a) Sound waves	c) Harmful U\	/ radiation	
b) Visible radiation	d) Greenhouse		
23) Which of the following is the cleanest for			
a) Natural gas b) Petrol	c) Petroleum	d) Coal	
24) Which part of a house receives majority			
(a) Roof (b) Side walls	c) Floor	d) Doors	
25) Which of the following provides energy	for winds to blow natur		
a) Water -b) Sun	c) Man	d) Food	



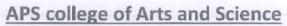
N.R colony Bangalore-560019

Department of Physics

Date: 21/2/23 Duration: 1 hr

Regist	er N	o.: 58010		ite cou	rse on Kenewabie Ene	rgy Resources	
Answe	er th	e all the follo	owing questions	each qu	uestion carries two ma	nrks	(25 X 2 = 50)
1)	14/1	nich of the fo	ollowing is a non-	renews	hle resource?		
1)		Solar	b) Geothermal		of Coal	d) Tidal	
2)			energy obtained		W. A. State Cold	uj ridai	
-,		Wind	b) Sunlight		c Oceanic tides	d) Biomass	
3)					-conventional energy		
		Coal	b) Geothermal		c) Tidal	d) Solar	
4)	WI	nen was Raja	sthan renewable	energy	corporation Ltd. Estab		
	a)	1980	6) 2002		c) 1963	d) 1956	
5)	ln:	a hydroelect	ric power plant, t	he elec	tric power is obtained	from the	
	a)	Chemical e	nergy		c) Nuclear energy		
	b)	Potential e	nergy	,	d) Energy of water		
6)	Ва	sed on usab	ility, Energy Res	ources	are classified into _		
	a)	primary, se	condary and terti	iary res	ources		_
	b)	primary an	d secondary reso	urces			
	c)	primary, se	condary, interme	diate a	nd tertiary resources		
	(d)	primary, ir	itermediate and s	seconda	ary resources		
7)	WI		ollowing is not a ty		orimary resource?		1
	a)	Crude Oil	b) Coal		Hydrogen Energy		
8)					sed for many decade	s are known a	s
	(a)	convention	al energy sources	S			
	b)		ntional energy so	urces			
	c)		ergy sources				
	d)	fuel cells					
9)	1		atements is correc		0,		
	a)		vable and conven		(70)7/		1/
	b)				entional source of energenal source of energy	gy	
	,		enewable source				
10					ы luce ÇO₂ during electri	city generation	2
		Coal	b) Methane		C) Uranium	d) Biogas	
11	10400		Charles and the second control of the second	ributor	to world pollution?		
	Va)	Commercia	And the second s		c) Non-Commercial R	esources	/
	b)	Renewable	Resources		d) Nuclear Energy		V

12) Which of the energy resources were co	nsidered for large scale	use after the oil cris	is of 1973?
a) Conventional Sources	c) Non-Conventional Sources		
b) Non-renewable sources	d) Primary Sources	2	
13) Which of the following is a renewal	ble resource?		
(a) Solar energy b) coal	c) mineral	d) natural gas	1
14) The unit of energy yield ratio is			
a) joule b) watt	c) joule/Kelvin	d) dimensionless	
15) The only country having a full-fledged	ministry for Developme	nt of New and Rene	ewable
Resources is			
a) India b) Bangladesh		d) China	
16) Which of the following pollutants are e		f fossil fuel?	
a) Oxides of Carbon, Nitrogen, and S			
b) Oxides of Carbon, Uranium, and R		X	
Calcium Halides and Oxides of Nit	rogen		
d) Noble Gases			
Which of the following statements is no		waste?	
a) It has radioactivity quotient of dang     b) The disposed radioactive weets in the disposed radioactive weets and the disposed radioactive wee			>
b) The disposed radioactive waste is t	o be guarded for a long j	period	
d) Its radioactivity decreases with time			
d) Its radioactivity decreases with time		el?	
<ul><li>d) Its radioactivity decreases with time</li><li>18) Which Oxides of Nitrogen are generate</li></ul>	d by burning of fossil fu		
d) Its radioactivity decreases with time	d by burning of fossil fu e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O		
<ul> <li>d) Its radioactivity decreases with time</li> <li>18) Which Oxides of Nitrogen are generated</li> <li>a) NO and NO<sub>2</sub></li> <li>b) N<sub>2</sub>O<sub>5</sub> and N<sub>2</sub>O<sub>3</sub></li> </ul>	d by burning of fossil fu c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
<ul> <li>d) Its radioactivity decreases with time</li> <li>18) Which Oxides of Nitrogen are generated</li> <li>a) NO and NO<sub>2</sub></li> </ul>	d by burning of fossil fu c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>	5	
<ul> <li>d) Its radioactivity decreases with time</li> <li>18) Which Oxides of Nitrogen are generated</li> <li>a) NO and NO<sub>2</sub></li> <li>b) N<sub>2</sub>O<sub>5</sub> and N<sub>2</sub>O<sub>3</sub></li> <li>19) Which Uranium isotope is used in nuclei</li> </ul>	d by burning of fossil fu e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?		
<ul> <li>d) Its radioactivity decreases with time</li> <li>18) Which Oxides of Nitrogen are generated</li> <li>a) NO and NO<sub>2</sub></li> <li>b) N<sub>2</sub>O<sub>5</sub> and N<sub>2</sub>O<sub>3</sub></li> <li>19) Which Uranium isotope is used in nuclein at U-235</li> <li>b) U-234</li> </ul>	d by burning of fossil fu e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?	5	
<ul> <li>d) Its radioactivity decreases with time</li> <li>18) Which Oxides of Nitrogen are generated</li> <li>a) NO and NO<sub>2</sub></li> <li>b) N<sub>2</sub>O<sub>5</sub> and N<sub>2</sub>O<sub>3</sub></li> <li>19) Which Uranium isotope is used in nucleon</li> <li>a) U-235</li> <li>b) U-234</li> <li>20) is power house of satellite</li> </ul>	d by burning of fossil fu e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215	d) U-218	
d) Its radioactivity decreases with time  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucle  a) U-235  b) U-234  20) is power house of satellite  a) Sun  b) moon  21) What is the pH level of acid rain?  a) Between 6-8  b) Between 3-4	d by burning of fossil fu e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries	d) U-218	
d) Its radioactivity decreases with time  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucle  a) U-235  b) U-234  20) is power house of satellite  a) Sun  b) moon  21) What is the pH level of acid rain?  a) Between 6-8  b) Between 3-2  22) What does ozone protect the earth from	d by burning of fossil fu e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries	d) U-218 d) fuel	
d) Its radioactivity decreases with time  18) Which Oxides of Nitrogen are generated  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucle  a) U-235  b) U-234  20) is power house of satellite  a) Sun  b) moon  21) What is the pH level of acid rain?  a) Between 6-8  b) Between 3-2  22) What does ozone protect the earth from a) Sound waves	d by burning of fossil fu e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries	d) U-218 d) fuel d) Between 11-14	
d) Its radioactivity decreases with time  18) Which Oxides of Nitrogen are generated a) NO and NO2 b) N2O5 and N2O3  19) Which Uranium isotope is used in nucle a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from a) Sound waves b) Visible radiation	d by burning of fossil fu c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries c) 7 c) Harmful UV d) Greenhouse	d) U-218 d) fuel d) Between 11-14	
d) Its radioactivity decreases with time  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucle  a) U-235 b) U-234  20) is power house of satellite  a) Sun b) moon  21) What is the pH level of acid rain?  a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from  a) Sound waves  b) Visible radiation  23) Which of the following is the cleanest form	d by burning of fossil fu c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries c) 7 ? c) Harmful UV d) Greenhouse	d) U-218 d) fuel d) Between 11-14	
d) Its radioactivity decreases with time  18) Which Oxides of Nitrogen are generated a) NO and NO2 b) N2O5 and N2O3  19) Which Uranium isotope is used in nucle a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from a) Sound waves b) Visible radiation  23) Which of the following is the cleanest for a Natural gas b) Petrol	d by burning of fossil fu  e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O  d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?  c) U-215  c) batteries  c) 7  f)  e) Harmful UV  d) Greenhouse  cossil fuel?  c) Petroleum	d) U-218 d) fuel d) Between 11-14	
d) Its radioactivity decreases with time  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucle  a) U-235 b) U-234  20) is power house of satellite  a) Sun b) moon  21) What is the pH level of acid rain?  a) Between 6-8 b) Between 3-2  22) What does ozone protect the earth from a) Sound waves  b) Visible radiation  23) Which of the following is the cleanest for a) Natural gas b) Petrol  24) Which part of a house receives majority	d by burning of fossil fu c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries c) 7 ? c) Harmful UV d) Greenhouse fossil fuel? c) Petroleum of solar radiation?	d) U-218 d) fuel d) Between 11-14 radiation effect d) Coal	
d) Its radioactivity decreases with time  18) Which Oxides of Nitrogen are generated  a) NO and NO2  b) N2O5 and N2O3  19) Which Uranium isotope is used in nucle  a) U-235  b) U-234  20) is power house of satellite  a) Sun  b) moon  21) What is the pH level of acid rain?  a) Between 6-8  b) Between 3-4  22) What does ozone protect the earth from a) Sound waves  b) Visible radiation  23) Which of the following is the cleanest form a) Natural gas  b) Petrol  24) Which part of a house receives majority a) Roof  b) Side walls	d by burning of fossil fu  e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O  d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?  c) U-215  c) batteries  c) 7  f)  d) Greenhouse fossil fuel?  c) Petroleum  of solar radiation?  c) Floor	d) U-218 d) fuel d) Between 11-14 radiation effect d) Coal d) Doors	
d) Its radioactivity decreases with time  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucle  a) U-235 b) U-234  20) is power house of satellite  a) Sun b) moon  21) What is the pH level of acid rain?  a) Between 6-8 b) Between 3-2  22) What does ozone protect the earth from a) Sound waves  b) Visible radiation  23) Which of the following is the cleanest for a) Natural gas b) Petrol  24) Which part of a house receives majority	d by burning of fossil fu  e) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O  d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?  c) U-215  c) batteries  c) 7  f)  d) Greenhouse fossil fuel?  c) Petroleum  of solar radiation?  c) Floor	d) U-218 d) fuel d) Between 11-14 radiation effect d) Coal d) Doors	



### N.R colony Bangalore-560019

Department of Physics

Date: 21 2 23 Duration: 1 hr

Examination - Certificate course on Renewable Energy Resources

nsw	er the	all the fol	lowing questions ea	ch question carries two mark	<u>(S</u>	(25 X 2 = 50
1	) Wh	ich of the f	ollowing is a non-re	newable resource?		
	a)	Solar	b) Geothermal	c) Coal	d) Tidal	
2	) Tid	al energy is	energy obtained th	rough		
		Wind	b) Sunlight	e) Oceanic tides	d) Biomass	
3	) Wh	ich one of	the following is not a	a non-conventional energy so	urces?	
	1	Coal	b) Geothermal	c) Tidal	d) Solar	
4	) Wh	en was Raj	asthan renewable e	nergy corporation Ltd. Establi	shed?	
		1980	6) 2002	c) 1963	d) 1956	
5	) In a	hydroelec	tric power plant, the	e electric power is obtained fr		
		Chemical		c) Nuclear energy	4	
	b)	Potential o	energy	d) Energy of water		
6	) Bas	sed on usa	bility, Energy Resou	urces are classified into		
	a)		econdary and tertian			
	b) -	CE COLLARS COLORS DARWING	nd secondary resour	V. M. C.		
	c)			ate and tertiary resources	V	
	di		ntermediate and sec	AND THE PARTY OF T		
7	0.500			e of primary resource?		
	a)	Crude Oil		c) Hydrogen Energy	d) Sunlight	X
01	001#0		50-18-00 (SEC)	variable control of the control of t	13.0	
8)				ing used for many decades	are known a	15
			nal energy sources		-	
			entional energy sour	ces		
	c)		nergy sources			
0	d)	fuel cells		1 461 5 0		
9				about Solar Energy?		
	232			onal source of energy	PD V POR	/
	b)			conventional source of energy entional source of energy		
			renewable source of			
1				t produce CO2 during electrici	ty generation	2
Т				c) Uranium		
1	177.53	Coal	b) Methane	1.159 #1.95A5 NO 545-107-2009-2-Mirod	d) Biogas	
T				butor to world pollution?	OURCOS	1
	(a)		al resources e Resources	c) Non-Commercial Res	ources	
	DI	Kenewani	e resources	d) Nuclear Energy		

12) Which of the energy resources were	considered for large so	ale use offer the	oil orisis -61072
a) Conventional Sources	c) Non-Conventi	onal Sources	JII CHSIS OF 19/3
b) Non-renewable sources			X
13) Which of the following is a renew	able resource?	,03	
a) Solar energy b) coal	c) mineral	1)1	/X
14) The unit of energy yield ratio is	c) innicial	d) natural	gas
		10-11	
15) The only country having a full-fledge	c) joule/Kelvin	a) dimension	onless
Resources is	d ministry for Develop	oment of New and	d Kenewable
a) India b) Banglades	h c) USA	d) China	
16) Which of the following pollutants are	emitted by the humin	g of fossil fiel?	
a) Oxides of Carbon, Nitrogen, and	Sulphur	8 01 103811 11101?	
b) Oxides of Carbon, Uranium, and	Radium		V
(e) Calcium Halides and Oxides of N	itrogen		
d) Noble Gases			
17) Which of the following statements is 1	not true about radioact	ive waste?	
a) It has radioactivity quotient of dar	ngerous levels.	., 0 ,, 43.0.	
b) The disposed radioactive waste is	to be guarded for a lor	ng neriod	
(e) It has low radioactivity quotient		-8 P ***********************************	
d) Its radioactivity decreases with tin	ne.		
18) Which Oxides of Nitrogen are generat	ed by burning of fossi	I fuel?	
a) NO and NO <sub>2</sub>	c) NO2, NO3, and N		
b) $N_2O_5$ and $N_2O_3$	d) NO3 and N2O5		
19) Which Uranium isotope is used in nuc	lear power plants?		
(a) U-235 b) U-234	c) U-215	d) U-218	1
20) is power house of satellite		× 5 5 5 5	
(a) Sun b) moon	c) batteries	d) fuel	
21) What is the pH level of acid rain?			
a) Between 6-8 b) Between 3-		d) Between	11-14
22) What does ozone protect the earth from	n?		
a) Sound waves	c) Harmful	UV radiation	
b) Visible radiation	d) Greenhou		
23) Which of the following is the cleanest	fossil fuel?		
<ul><li>a) Natural gas</li><li>b) Petrol</li></ul>	c) Petroleum	d) Coal	X
24) Which part of a house receives majorit	y of solar radiation?		
(a) Roof b) Side walls	c) Floor	d) Doors	
25) Which of the following provides energy	y for winds to blow na	turally?	
a) Water b) Sun	c) Man	d) Food	

N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr

**Examination - Certificate course on Renewable Energy Resources** 

Date: 21/2/23

Register No.: \$201036

Answe	r the all the following questions ea	ach question carries two m	arks	(25 X 2 = 50)
4)	MATERIAL COLUMN			
1)	Which of the following is a non-re			
1	a) Solar b) Geothermal	C Coal	d) Tidal	
2)	Tidal energy is energy obtained th	CO-MAN A ASSESSMENT OF THE PARTY OF THE PART		
- 1	a) Wind b) Sunlight		d) Biomass	X
3)	Which one of the following is not		sources?	
	(a) Coal b) Geothermal	c) Tidal	d) Solar	
4)	When was Rajasthan renewable e	nergy corporation Ltd. Esta	blished?	
	a) 1980 b) 2002	c) 1963	d) 1956	
5)	In a hydroelectric power plant, the	e electric power is obtained	from the	
	a) Chemical energy	c) Nuclear energy		
	b) Potential energy	d) Energy of water		
6)	Based on usability, Energy Resou	urces are classified into _		
	a) primary, secondary and tertian			
	b) primary and secondary resour	ces		
	c) primary, secondary, intermedi	ate and tertiary resources		
	d) primary, intermediate and sec			
7)	Which of the following is not a typ			
	a) Crude Oil b) Coal	e) Hydrogen Energy	d) Sunlight	
8)	Energy Resources which are bei			S
	a) conventional energy sources	g area area many account	os are known a	
	b) non-conventional energy source	ces		
	c) primary energy sources			
	d) fuel cells			
9)	Which of the statements is correct a	about Solar Energy?		
- /	a) It is a renewable and convention			
	b) It is a non-renewable and non-c		ON I	
	e) It is a renewable and non-conve	entional source of energy	53	
	d) It is a non-renewable source of			
	Which of these resources does not		icity generation	2
	a) Coal b) Methane	c) Uranium	d) Biogas	
	Which of these is the major contrib		a, biogas	
	Commercial resources	c) Non-Commercial R	esources	
	h) Renewable Resources	O N. J. S	C3OUI CC3	

a) Conventional Sources	were considered for large	scale use often the all	Jain of 1072
a) Conventional Sources	Vet Non-Conven	tional Courses	TISIS OF 1973
b) Non-renewable sources	d) Primary Com	nonal Sources	
13) Which of the following is a r	energable reserved	rces	
a) Solar energy b) coa	chewable resource?		X
14) The unit of engage and 14	c) mineral	d) natural gas	<i>y</i> ~
14) The unit of energy yield ratio is a) joule b) watt	<del></del>		
	c) joule/Kelvin	d) dimensionle	ss
13) The only could y having a full-i	ledged ministry for Develo	opment of New and Re	enewable
111111111111111111111111111111111111111			
	gladesh c) USA	d) China	
16) Which of the following pollutan	ts are emitted by the burni	ng of fossil fuel?	
a) Oxides of Carbon, Nitrogen	and Sulphur		
b) Oxides of Carbon, Uranium,	and Radium	V	
(a) Calcium Halides and Oxides	of Nitrogen	7	
d) Noble Gases			
Which of the following statemen	its is not true about radioac	tive waste?	
a) It has radioactivity quotient	of dangerous levels		
<ul> <li>The disposed radioactive wa</li> </ul>	ste is to be guarded for a lo	ong period	
c) It has low radioactivity quoti	ent	7 -	
d) Its radioactivity decreases wi	th time.		
<ol><li>Which Oxides of Nitrogen are ge</li></ol>	nerated by burning of foss	il fuel?	
a) NO and $NO_2$	c) NO2, NO3, and 1	V2Os V	
$N_2O_5$ and $N_2O_3$	d) NO2 and NoO.		
19) Which Uranium isotope is used in	nuclear power plants?		
a) U-235 b) U-234	c) U-215	d) U-218	/
20) is power house of satell	ite	4) 0-218	
(a) Sun b) moon	c) batteries	d) fuel	
21) What is the pH level of acid rain?		d) luci	
a) Between 6-8 b) Between	en 3-4 c) 7	d) Between 11-14	1
22) What does ozone protect the earth	from?	d) Between 11-14	4
a) Sound waves	/	UV radiation	
b) Visible radiation	d) Greenho		
23) Which of the following is the clear	nest fossil fixel?	use effect	
a) Natural gas b) Petrol	c) Petroleum	11/Q 1	
24) Which part of a house receives ma	iority of solar radiation?	d) Coal	
a) Roof b) Side w	alls c) Floor	D.D.	
25) Which of the following provides e	nergy for winds to be	d) Doors	
a) Water b) Sun	a) Mass		
e) Juli	c) Man	d) Food	

N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr

Date: 21 2 23

Examination - Certificate course on Renewable Engrave Re

Registe	er No.: 520100	37	course on Kenewable En	ergy Kesources	
Answe	r the all the following o	uestions eacl	h question carries two m	<u>arks</u>	(25 X 2 = 50)
	Which of the following				,
-,	a) Solar b) Ge	othormal	c) Coal		
2)	Tidal energy is energy			d) Tidal	
	a) Wind b) Sun	light	c) Oceanic tides	1) 5:	
3)	Which one of the follo	wing is not a r	non-conventional energy	d) Biomass	X
•	a) Coal b) Geo	thermal			
4)			c) Tidal	el) Solar	X
.,	a) 1980 b) 200	onewable ene	ergy corporation Ltd. Esta		
5)			c) 1963	d) 1956	
٥,	a) Chemical energy	er piant, the e	lectric power is obtained	from the	
	b) Potential energy		c) Nuclear energy		
<i>C</i> )			(f) Energy of water		
6)	based on usability, En	ergy Resourc	ces are classified into _		
	a) primary, secondary				
	b) primary and second				
	c) primary, secondary	, intermediate	e and tertiary resources	./	
,	d) primary, intermed	iate and secor	ndary resources		
7)	Which of the following		of primary resource?		
	a) Crude Oil b) Co		Hydrogen Energy	d) Sunlight	
8)	Energy Resources wh	ich are being	used for many decade	s are known as	5
,	ថា conventional energ	y sources ,			
	<ul><li>b) non-conventional e</li></ul>	nergy sources			
	c) primary energy sou				
3	d) fuel cells				
9)	Which of the statements	is correct abo	out Solar Energy?		
	a) It is a renewable and	l conventional	l source of energy		
- 1	) It is a non-renewabl	e and non-con	ventional source of energ	V	
1	It is a renewable and	l non-convent	ional source of energy	,	
(	d) It is a non-renewable	e source of en	ergy		
10) \	Which of these resource	s does not pro	oduce CO2 during electric	ity generation?	
ā	) Coal b) Meth	ane	(c) Uranium	d) Biogas	
11) \	Which of these is the ma	ajor contribute		, 843	
	Commercial resourc	es	c) Non-Commercial Re	sources	
t	) Renewable Resource	es	d) Nuclear Energy	-	

\ 0 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ideled for rathe scale its	e after the oil crisis of 1973
a) Conventional Sources	Non-Conventional	Sources
11 37	d) Primary Sources	
13) Which of the following is a renewable		
a) Solar energy b) coal		d) natural gas
14) The unit of energy yield ratio is	) 111110101	a) natural gas
The state of the s	c) joule/Kelvin	M dimensionless
15) The only country having a full-fledged mi		
Resources is		or row and Ronowable
a) India b) Bangladesh c	e) USA	d) China
16) Which of the following pollutants are emi		ossil fuel?
a) Oxides of Carbon, Nitrogen, and Sulp	hur	
b) Oxides of Carbon, Uranium, and Radi		4
c) Calcium Halides and Oxides of Nitrog	gen	
d) Noble Gases		
17) Which of the following statements is not t	rue about radioactive wa	aste?
<ul> <li>a) It has radioactivity quotient of danger</li> </ul>	ous levels.	
b) The disposed radioactive waste is to b	e guarded for a long per	riod
It has low radioactivity quotient		
<ul> <li>d) Its radioactivity decreases with time.</li> </ul>		
18) Which Oxides of Nitrogen are generated b	by burning of fossil fuel	?
a) NO and NO <sub>2</sub>	by burning of fossil fuel NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub>	? ★
<ul> <li>a) NO and NO<sub>2</sub></li> <li>b) N<sub>2</sub>O<sub>5</sub> and N<sub>2</sub>O<sub>3</sub></li> </ul>	) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>	*
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> d  19) Which Uranium isotope is used in nuclear	) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> ) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> power plants?	*
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> b 19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c	) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> ) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> power plants?	) V-218
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> d  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite	) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> ) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> power plants? ) U-215	*
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 8  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  c)	) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> ) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> power plants? ) U-215	*
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 8  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  21) What is the pH level of acid rain?	) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> ) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ) power plants? ) U-215  (batteries	il) U-218
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> b  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4	) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> ) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ) power plants? ) U-215  (batteries	H) U-218
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 8  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from?	) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> ) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> power plants? ) U-215  (c) 7	d) U-218 d) fuel d) Between 11-14
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 8  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from? a) Sound waves	) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> ) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> power plants? ) U-215  (c) 7  (d) Harmful UV ra	I) U-218 I) fuel I) Between 11-14 adiation
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 8  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from? a) Sound waves b) Visible radiation	) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> ) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> power plants? ) U-215  (c) 7  (d) Harmful UV rad) Greenhouse ef	I) U-218 I) fuel I) Between 11-14 adiation
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> g  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from? a) Sound waves b) Visible radiation  23) Which of the following is the cleanest foss	o) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> o) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> power plants?  o) U-215  o) batteries  c) 7  o) Harmful UV rad) Greenhouse efficil fuel?	I) U-218 I) fuel I) Between 11-14 adiation fect
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 8  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from? a) Sound waves b) Visible radiation  23) Which of the following is the cleanest foss a) Natural gas b) Petrol c)	o) NO2, NO3, and N2O5 NO3 and N2O5 power plants?  O) U-215  o) batteries  c) 7  d) Harmful UV rad) Greenhouse efficial fuel?  O) Petroleum	I) U-218 I) fuel I) Between 11-14 adiation
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> d  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from? a) Sound waves b) Visible radiation  23) Which of the following is the cleanest foss a) Natural gas b) Petrol c)  24) Which part of a house receives majority of	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> power plants?  U-215  batteries  c) 7  c) Harmful UV rad) Greenhouse efficil fuel?  Petroleum  f solar radiation?	d) U-218 d) fuel d) Between 11-14 adiation ffect
a) NO and NO <sub>2</sub> c b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 8  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from? a) Sound waves b) Visible radiation  23) Which of the following is the cleanest foss a) Natural gas b) Petrol c)  24) Which part of a house receives majority of a) Roof b) Side walls c)	o) NO2, NO3, and N2O5 NO3 and N2O5 power plants?  ) U-215  c) Harmful UV rad) Greenhouse efficiel?  ) Petroleum f solar radiation?	d) U-218 d) fuel d) Between 11-14 adiation fect d) Coal
a) NO and NO2 c b) N2O5 and N2O3 d  19) Which Uranium isotope is used in nuclear a) U-235 b) U-234 c  20) is power house of satellite a) Sun b) moon c  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from? a) Sound waves b) Visible radiation  23) Which of the following is the cleanest foss a) Natural gas b) Petrol c)  24) Which part of a house receives majority of a) Roof b) Side walls c)  25) Which of the following provides energy fo	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub> power plants?  U-215  batteries  c) 7  c) Harmful UV rad) Greenhouse efficil fuel?  Petroleum  solar radiation?  Floor  winds to blow naturall	d) U-218 d) fuel d) Between 11-14 adiation fect d) Coal



### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr	Datie: 21	2	23
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Register No.: S 2010039

	Which of the following is a non-re-	newable resource?		
	a) Solar b) Geothermal		d) Tidal	
	Tidal energy is energy obtained th	rough		
	a) Wind b) Sunlight	ve) Oceanic tides	d) Biomass	
	Which one of the following is not	a non-conventional energy	sources?	
1	a) Coal b) Geothermal	c) Tidal	d) Solar	1
	When was Rajasthan renewable e	nergy corporation Ltd. Esta	blished?	
	a) 1980 b) 2002	c) 1963	d) 1956	1
	In a hydroelectric power plant, the	e electric power is obtained	from the	
	a) Chemical energy	c) Nuclear energy		
	b) Potential energy	d) Energy of water		
	Based on usability, Energy Resou	urces are classified into _		
	a) primary, secondary and tertial	ry resources		
	b) primary and secondary resour	rces		
	c) primary, secondary, intermedi	iate and tertiary resources		1
	primary, intermediate and see	condary resources		
	Which of the following is not a typ	e of primary resource?		
	a) Crude Oil b) Coal	Hydrogen Energy	d) Sunlight	-
	Energy Resources which are bei	ing used for many decade	es are known	as
	a) conventional energy sources			
	b) non-conventional energy sour	ces		
	c) primary energy sources			
	d) fuel cells			
	Which of the statements is correct	about Solar Energy?		
	a) It is a renewable and convention	onal source of energy		
	b) It is a non-renewable and non-		gy	/
	It is a renewable and non-conv			
	d) It is a non-renewable source of			
	Which of these resources does not			n?
	a) Coal b) Methane	(e) Uranium	d) Biogas	
	Which of these is the major contril	butor to world pollution?		
		2000 TO THE STATE OF THE STATE		
	b) Renewable Resources	c) Non-Commercial R	lesources	-

12) Which of the energy resources were	considered for large sc	ale use after the oil	oninin of 1072
a) Conventional Sources	Non-Convention	onal Sources	Crisis of 1973
b) Non-renewable sources	d) Primary Source		-
13) Which of the following is a renew	able resource?	.03	
	c) mineral	d)	1
14) The unit of energy yield ratio is	o) illiliciai	d) natural ga	S
	c) joule/Kelvin	d) dimension	
The only country having a full-fledge Resources is	ed ministry for Develop	oment of New and I	ess Renewable
a) India b) Banglades	sh c) USA	d) China	
16) Which of the following pollutants are	emitted by the burning	of fossil fuel?	man of m
a) Oxides of Carbon, Nitrogen, and	Sulphur	5 02 100011 14011	
b) Oxides of Carbon, Uranium, and	Radium	V	
c) Calcium Halides and Oxides of N	litrogen		
d) Noble Gases			
17) Which of the following statements is 1	not true about radioacti	ive waste?	
<ul> <li>a) It has radioactivity quotient of dar</li> </ul>	igerous levels.		
b) The disposed radioactive waste is	to be guarded for a lon	ng period	
(e) It has low radioactivity quotient			
d) Its radioactivity decreases with tin	ne.		
18) Which Oxides of Nitrogen are generat	ed by burning of fossil	fuel?	
a) NO and NO <sub>2</sub>	c) NO2, NO3, and N	2O <sub>5</sub>	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>	7	
19) Which Uranium isotope is used in nuc			2.7
a) U-235 b) U-234	e) U-215	d) U-218	X
20) is power house of satellite			
, , , , , , , , , , , , , , , , , , , ,	c) batteries	d) fuel	
21) What is the pH level of acid rain?	MAC CARROW		
a) Between 6-8 b) Between 3-		d) Between 11-	.14
<ol> <li>What does ozone protect the earth from</li> <li>Sound waves</li> </ol>			
b) Visible radiation	√c) Harmful (		/
	d) Greenhou	se effect	
23) Which of the following is the cleanest :  (a) Natural gas  (b) Petrol			
,	c) Petroleum	d) Coal	
24) Which part of a house receives majority  a) Roof b) Side walls		20(1)222-12	
· Joseph Walls	c) Floor	d) Doors	
a) Water b) Sun			
a) Water b) Sun	c) Man	d) Food	

N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr Date: 21/2/23

Examination - Certificate course on Renewable Energy Resources

Re	giste	er No.	:520	10039			
Ar	iswe	r the	all the folk	owing questions ea	ch question carries two ma	ırks	(25 X 2 = 50)
	1)	Whi	ch of the fo	ollowing is a non-rer	newable resource?		
			Solar	b) Geothermal	(e) Coal	d) Tidal	
	2)	Tida	energy is	energy obtained thr	CHEST CHESTON	-,	
			Wind	b) Sunlight	c) Oceanic tides	d) Biomass	
	3)	Whi	ch one of t		non-conventional energy		
		a) (		b) Geothermal	c) Tidal	et) Solar	X
	4)	Whe	n was Raja	And the company of the control of th	ergy corporation Ltd. Estab		
				b) 2002	c) 1963	d) 1956	
	5)	In a l	hydroelect	ric power plant, the	electric power is obtained		
			Chemical e		c) Nuclear energy		
		b) 1	Potential e	nergy	d) Energy of water		
	6)	Base	ed on usab	oility, Energy Resou	rces are classified into_		
				econdary and tertian			
		b) p	orimary an	d secondary resource	ces		
		c) F	orimary, se	condary, intermedia	ate and tertiary resources		
	10 28			ntermediate and sec			
	7)	Whic	ch of the fo	ollowing is not a type	e of primary resource?		
		a)	Crude Oil	b) Coal	W Hydrogen Energy	d) Sunlight	
	8)	Ener	gy Resou	rces which are bein	ng used for many decade	s are known	as
		/	2200	al energy sources			
		b) r	non-convei	ntional energy sourc	es	(	
		c) p	orimary en	ergy sources			
		d) f	uel cells				
	9)	Whic	ch of the st	atements is correct a	bout Solar Energy?		
		a) I	t is a renev	wable and convention	nal source of energy	V	
		b) I	t is a non-1	enewable and non-c	onventional source of energ	39	
					entional source of energy		
		267		enewable source of			
	10)				produce CO <sub>2</sub> during electri		n?
		a) (		b) Methane	e) Uranium	d) Biogas	
					utor to world pollution?		
				l resources	c) Non-Commercial Re	esources	
		b) B	Renewable	Resources	d) Nuclear Energy		8

12) Which of the energy resources were o	considered for large scale	anse after the oil crisis of 1072
a) Conventional Sources	e) Non-Convention	al Sources
b) Non-renewable sources	d) Primary Sources	2001000
13) Which of the following is a renew	able resource?	
a) Solar energy b) coal	c) mineral	d) natural gas
14) The unit of energy yield ratio is	-)	a) iliturai gas
	c) joule/Kelvin	A dimensionless
15) The only country having a full-fledge	d ministry for Developm	ent of New and Renewable
Resources is		The second secon
(a) India b) Banglades	h c) USA	d) China
16) Which of the following pollutants are	emitted by the burning of	of fossil fuel?
<ul> <li>a) Oxides of Carbon, Nitrogen, and</li> </ul>	Sulphur	
b) Oxides of Carbon, Uranium, and I	Radium	X
Calcium Halides and Oxides of N	itrogen	
d) Noble Gases		
Which of the following statements is 1	not true about radioactive	e waste?
a) It has radioactivity quotient of dar	ngerous levels.	
b) The disposed radioactive waste is	to be guarded for a long	period
<ul><li>c) It has low radioactivity quotient</li><li>d) Its radioactivity decreases with tin</li></ul>		
18) Which Oxides of Nitrogen are generat	ne. od by byznia – -6-611-6	10
a) NO and NO <sub>2</sub>	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O	
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>	)5 ————————————————————————————————————
19) Which Uranium isotope is used in nuc		
a) U-235 b) U-234	c) U-215	d) U-218
20) is power house of satellite	3, 3 = 12	u) 0-210
(a) Sun b) moon	c) batteries	d) fuel
21) What is the pH level of acid rain?	* *************	-,
a) Between 6-8 b) Between 3-	4 c) 7	d) Between 11-14
22) What does ozone protect the earth from	n?	
a) Sound waves	(c) Harmful U	V radiation
b) Visible radiation	d) Greenhouse	e effect
23) Which of the following is the cleanest	fossil fuel?	
a) Natural gas b) Petrol	c) Petroleum	d) Coal
24) Which part of a house receives majorit		
a) Roof b) Side walls	c) Floor	d) Doors
25) Which of the following provides energy		
a) Water b) Sun	c) Man	d) Food





## N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr Date: 21/2/23 Examination - Certificate course on Renewable Energy Resources Register No.: \$2010040 Answer the all the following questions each question carries two marks  $(25 \times 2 = 50)$ 1) Which of the following is a non-renewable resource? a) Solar b) Geothermal d) Tidal 2) Tidal energy is energy obtained through \_ a) Wind b) Sunlight e) Oceanic tides d) Biomass 3) Which one of the following is not a non-conventional energy sources? b) Geothermal el Tidal 4) When was Rajasthan renewable energy corporation Ltd. Established? b) 2002 c) 1963 5) In a hydroelectric power plant, the electric power is obtained from the a) Chemical energy c) Nuclear energy b) Potential energy d) Energy of water 6) Based on usability, Energy Resources are classified into \_ a) primary, secondary and tertiary resources b) primary and secondary resources c) primary, secondary, intermediate and tertiary resources ay primary, intermediate and secondary resources 7) Which of the following is not a type of primary resource? a) Crude Oil b) Coal e Hydrogen Energy d) Sunlight 8) Energy Resources which are being used for many decades are known as a) conventional energy sources b) non-conventional energy sources c) primary energy sources d fuel cells 9) Which of the statements is correct about Solar Energy? a) It is a renewable and conventional source of energy b) It is a non-renewable and non-conventional source of energy c) It is a renewable and non-conventional source of energy d) It is a non-renewable source of energy 10) Which of these resources does not produce CO₂ during electricity generation? a) Coal b) Methane C) Uranium d) Biogas 11) Which of these is the major contributor to world pollution?

c) Non-Commercial Resources

d) Nuclear Energy

a) Commercial resources

b) Renewable Resources

12	) W	hich of the energy re	sources were con	nsidered for large scale	use after the	oil crisis of 1973?
	a)	Conventional Sou	urces	Non-Conventiona	al Sources	
				d) Primary Sources		
13		hich of the following				
		Solar energy			d) natural	gas ×
14)		e unit of energy yiel		)	d) naturar	gas
		joule		c) joule/Kelvin	d'dimensi	nless
15)	100000		g a full-fledged	ministry for Developme	ent of New an	d Renewable
	Re	sources is	0 0	,	OZZIOW WILL	a removiable
		India	b) Bangladesh	c) USA	d) China	X
16)	W	nich of the following		mitted by the burning of		
	ay	Oxides of Carbon,	Nitrogen, and Su	ılphur		
		Oxides of Carbon,				
		Calcium Halides ar				
		Noble Gases				
17)	WI	nich of the following	statements is no	t true about radioactive	waste?	
	a)	It has radioactivity	quotient of dang	erous levels.		
	b)	The disposed radio	active waste is to	be guarded for a long p	period 🗸	
1	c)	It has low radioacti	vity quotient			
	d)	Its radioactivity dec	reases with time			
18)	W	nich Oxides of Nitrog	gen are generated	d by burning of fossil fu	.el?	
	a)	NO and NO <sub>2</sub>		c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O		
		$^{\prime}$ N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>		d) NO3 and N2O5		
19)	Wh	ich Uranium isotope	is used in nucle	ar power plants?		
	a)	U-235 b) U-23	34	c) U-215	d) U-218	X
20)		is power hous	e of satellite			
,	a)	Sun b) moor	n	c) batteries	d) fuel	
21)		at is the pH level of				
		Between 6-8			d) Between	11-14 🗶
		at does ozone protec	t the earth from?	?		
	- 10	Sound waves	/	e) Harmful UV	radiation /	
	7.1	Visible radiation		d) Greenhouse	effect	
23)	Wh	ich of the following	is the cleanest for	ossil fuel?		
		Natural gas	b) Petrol	c) Petroleum	d) Coal	
24)	Wh	ich part of a house re	eceives majority	of solar radiation?		
	a)	Roof	b) Side walls	c) Floor	d) Doors	X
25)	Wh	ich of the following	provides energy	for winds to blow natur	ally?	
,	a)	Water	b) Sun	c) Man	d) Food	X





### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr

Date: 21/2/23

**Examination - Certificate course on Renewable Energy Resources** 

Register No.: 52010041

wer	the all the following questions	each question carries two m	<u>narks</u> (25 X 2 =
1)	Which of the following is a non-	renewable resource?	
	a) Solar b) Geothermal	,	d) Tidal
2)	Tidal energy is energy obtained	through	
	a) Wind b) Sunlight	e Oceanic tides	d) Biomass
3)	Which one of the following is no	ot a non-conventional energy	sources?
	a) Coal b) Geothermal	c) Tidal	al Solar X
4)	When was Rajasthan renewable	energy corporation Ltd. Esta	ablished?
	a) 1980 b) 2002	c) 1963	d) 1956
5)	In a hydroelectric power plant, t	he electric power is obtained	d from the
	a) Chemical energy	c) Nuclear energy	
	b) Potential energy	d) Energy of water	
6)	Based on usability, Energy Res	ources are classified into	
	a) primary, secondary and tert		
-	b) primary and secondary reso		,
	c) primary, secondary, interme		X
	d) primary, intermediate and s		
7)	Which of the following is not a t		
	a) Crude Oil b) Coal	e) Hydrogen Energy	d) Sunlight
8)	Energy Resources which are b		
	at conventional energy sources		
	b) non-conventional energy so		
	c) primary energy sources		
	d) fuel cells		
	Which of the statements is correct	et about Solar Energy?	
1	a) It is a renewable and conven		
H	b) It is a non-renewable and no		rgv 🗶
	c) It is a renewable and non-co		-6,
	d) It is a non-renewable source		
	Which of these resources does n		ricity generation?
	a) Coal b) Methane	c) Uranium	d) Biogas
11)	Which of these is the major cont	ributor to world pollution?	
	a) Commercial resources	c) Non-Commercial I	Resources
	b) Renewable Resources	10Ex. 400-1-1277	X

12) Which of the energy resources were co	nsidered for large scale	e use after the oil crisis	of 1973?
a) Conventional Sources	c) Non-Convention	nal Sources	
b) Non-renewable sources	d) Primary Sources	1	
13) Which of the following is a renewal	ole resource?		
a) Solar energy b) coal	c) mineral	d) natural gas	
14) The unit of energy yield ratio is			./
a) joule b) watt	c) joule/Kelvin	d) dimensionless	
15) The only country having a full-fledged	ministry for Developn	nent of New and Renev	vable
Resources is			
a) India b) Bangladesh		d) China	
16) Which of the following pollutants are e		of fossil fuel?	
a) Oxides of Carbon, Nitrogen, and S	*		
b) Oxides of Carbon, Uranium, and R			
c) Calcium Halides and Oxides of Nit	trogen		
d) Noble Gases	72 W 14 C 14 No.	0. 445	
17) Which of the following statements is no		e waste?	
a) It has radioactivity quotient of dang			
<ul> <li>b) The disposed radioactive waste is t</li> <li>e) It has low radioactivity quotient</li> </ul>	o be guarded for a long	g period	
11 has low radioactivity quotient			
d) Its radioactivity decreases with tim		fijal?	
d) Its radioactivity decreases with tim 18) Which Oxides of Nitrogen are generate	ed by burning of fossil		
<ul> <li>d) Its radioactivity decreases with tim</li> <li>18) Which Oxides of Nitrogen are generate</li> <li>a) NO and NO<sub>2</sub></li> </ul>	ed by burning of fossil c) NO2, NO3, and N2		
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	ed by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
<ul> <li>d) Its radioactivity decreases with tim</li> <li>18) Which Oxides of Nitrogen are generated</li> <li>a) NO and NO<sub>2</sub></li> <li>b) N<sub>2</sub>O<sub>5</sub> and N<sub>2</sub>O<sub>3</sub></li> <li>19) Which Uranium isotope is used in nucleon</li> </ul>	ed by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?	O <sub>5</sub>	
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl  a) U-235  b) U-234	ed by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
<ul> <li>d) Its radioactivity decreases with tim</li> <li>18) Which Oxides of Nitrogen are generated</li> <li>a) NO and NO<sub>2</sub></li> <li>b) N<sub>2</sub>O<sub>5</sub> and N<sub>2</sub>O<sub>3</sub></li> <li>19) Which Uranium isotope is used in nucleon</li> </ul>	ed by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?	O <sub>5</sub>	
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl  a) U-235  b) U-234  20) is power house of satellite	cd by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? _c)-U-215	Os d) U-218	
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl  a) U-235  b) U-234  20) is power house of satellite  a) Sun  b) moon	cd by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c)-U-215 c) batteries	Os d) U-218	- ×
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl  a) U-235  b) U-234  20) is power house of satellite  a) Sun  b) moon  21) What is the pH level of acid rain?	cd by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries	O <sub>5</sub> d) U-218 d) fuel	- *
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl  a) U-235  b) U-234  20) is power house of satellite  a) Sun  b) moon  21) What is the pH level of acid rain?  a) Between 6-8  b) Between 3-4	cd by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries	d) U-218	× .
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl a) U-235 b) U-234  20) is power house of satellite a) Sun b) moon  21) What is the pH level of acid rain? a) Between 6-8 b) Between 3-4  22) What does ozone protect the earth from	cd by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries	d) U-218  d) fuel d) Between 11-14  JV radiation	×
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl  a) U-235  b) U-234  20) is power house of satellite  a) Sun  b) moon  21) What is the pH level of acid rain?  a) Between 6-8  b) Between 3-4  22) What does ozone protect the earth from  a) Sound waves	ed by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries 4 e) 7 n? e) Harmful U d) Greenhou	d) U-218  d) fuel d) Between 11-14  JV radiation	× .
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl  a) U-235  b) U-234  20) is power house of satellite  a) Sun  b) moon  21) What is the pH level of acid rain?  a) Between 6-8  b) Between 3-4  22) What does ozone protect the earth from  a) Sound waves  b) Visible radiation  23) Which of the following is the cleanest the arth form  a) Natural gas  b) Petrol	cd by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?  c) U-215  c) batteries  4  e) 7  n?  e) Harmful U d) Greenhou fossil fuel? c) Petroleum	d) U-218  d) fuel d) Between 11-14  JV radiation	× .
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO2  b) N2O5 and N2O3  19) Which Uranium isotope is used in nucle a) U-235  b) U-234  20) is power house of satellite a) Sun  b) moon  21) What is the pH level of acid rain? a) Between 6-8  b) Between 3-4  22) What does ozone protect the earth from a) Sound waves b) Visible radiation  23) Which of the following is the cleanest the analysis of the part of a house receives majority	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants? c) U-215 c) batteries 4 e) 7 n? e) Harmful U d) Greenhou fossil fuel? c) Petroleum y of solar radiation?	d) U-218  d) fuel d) Between 11-14  JV radiation se effect d) Coal	× .
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub> 19) Which Uranium isotope is used in nucl  a) U-235  b) U-234  20) is power house of satellite  a) Sun  b) moon  21) What is the pH level of acid rain?  a) Between 6-8  b) Between 3-4  22) What does ozone protect the earth from a) Sound waves  b) Visible radiation  23) Which of the following is the cleanest the axide of the part of a house receives majority a) Roof  b) Side walls	cd by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?  c) U-215  c) batteries  4  c) 7  n?  e) Harmful U d) Greenhou fossil fuel? c) Petroleum y of solar radiation? c) Floor	d) U-218  d) fuel d) Between 11-14  JV radiation se effect d) Coal d) Doors	×
d) Its radioactivity decreases with tim  18) Which Oxides of Nitrogen are generate  a) NO and NO2  b) N2O5 and N2O3  19) Which Uranium isotope is used in nucle a) U-235  b) U-234  20) is power house of satellite a) Sun  b) moon  21) What is the pH level of acid rain? a) Between 6-8  b) Between 3-4  22) What does ozone protect the earth from a) Sound waves b) Visible radiation  23) Which of the following is the cleanest the analysis of the part of a house receives majority	cd by burning of fossil c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub> ear power plants?  c) U-215  c) batteries  4  c) 7  n?  e) Harmful U d) Greenhou fossil fuel? c) Petroleum y of solar radiation? c) Floor	d) U-218  d) fuel d) Between 11-14  JV radiation se effect d) Coal d) Doors	×

### N.R colony Bangalore-560019

Department of Physics

Dura	tion: 1 hr	bate: 21 2 23
Registe	r No.: S2010042	
	r the all the following questions each question carries two marks	(25 X 2 = 50)
MISTOC	the air the following questions each question carries two marks	(23 A Z = 50)
1)	Which of the following is a non-renewable resource?	
-1	a) Solar b) Geothermal Coal d) Tidal	
2)	Tidal energy is energy obtained through	
-1	a) Wind b) Sunlight Oceanic tides d) Biomass	
3)	Which one of the following is not a non-conventional energy sources?	
	Coal b) Geothermal c) Tidal d) Solar	
	When was Rajasthan renewable energy corporation Ltd. Established?	
7)	a) 1980 b) 2002 c) 1963 d) 1956	
5)	In a hydroelectric power plant, the electric power is obtained from the	
	Chemical energy c) Nuclear energy	
	b) Potential energy d) Energy of water	*
6)		
0)	Based on usability, Energy Resources are classified into	
	a) primary, secondary and tertiary resources	
	b) primary and secondary resources	X
	c) primary, secondary, intermediate and tertiary resources	5 6
71	d) primary, intermediate and secondary resources	
7)	Which of the following is not a type of primary resource?	
	a) Crude Oil b) Coal e) Hydrogen Energy d) Sunlight	
8)	Energy Resources which are being used for many decades are known as	
	a) conventional energy sources	
	b) non-conventional energy sources	×
	primary energy sources	
	d) fuel cells	
	Which of the statements is correct about Solar Energy?	
,	a) It is a renewable and conventional source of energy	· · · ·
	b) It is a non-renewable and non-conventional source of energy	*
	c) It is a renewable and non-conventional source of energy	
10\	d) It is a non-renewable source of energy	
10)	Which of these resources does not produce CO <sub>2</sub> during electricity generation?	
111	a) Coal b) Methane e) Uranium d) Biogas	
11)	Which of these is the major contributor to world pollution?	
	a) Commercial resources c) Non-Commercial Resources	

Muclear Energy

b) Renewable Resources

12) Which of the energy resources were c	onsidered for large scale	use after the oil c	risis of 1973?
(a) Conventional Sources			
b) Non-renewable sources			X
13) Which of the following is a renewa	able resource?		
a) Solar energy b) coal	c) mineral	d) natural gas	A
14) The unit of energy yield ratio is		,	7
	c) joule/Kelvin	d) dimensionle	ess
15) The only country having a full-fledge			
Resources is			
a) India b) Bangladesi	h c) USA	d) China	
16) Which of the following pollutants are	emitted by the burning	of fossil fuel?	
a) Oxides of Carbon, Nitrogen, and	Sulphur		
b) Oxides of Carbon, Uranium, and I	Radium		
c) Calcium Halides and Oxides of N	itrogen		
d) Noble Gases			
17) Which of the following statements is I	not true about radioactiv	e waste?	
<ul> <li>a) It has radioactivity quotient of dar</li> </ul>	ngerous levels.		
b) The disposed radioactive waste is	to be guarded for a long	period	
It has low radioactivity quotient			
<li>d) Its radioactivity decreases with tin</li>	ne.		
18) Which Oxides of Nitrogen are generate			
a) NO and NO <sub>2</sub>	-1	O <sub>5</sub>	X
b) $N_2O_5$ and $N_2O_3$	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
19) Which Uranium isotope is used in nuc	The state of the s		
a) U-235 b) U-234	c) U-215	d) U-218	*
20) is power house of satellite	100 A		
a) Sun b) moon	c) batteries	d) fuel	
21) What is the pH level of acid rain?			See
a) Between 6-8 b) Between 3-	0.00	d) Between 11-	-14
22) What does ozone protect the earth from			
a) Sound waves	Harmful U		
b) Visible radiation	d) Greenhous	se effect	
23) Which of the following is the cleanest		1) () 1	
a) Natural gas b) Petrol	c) Petroleum	d) Coal	
24) Which part of a house receives majori		d) Da	
a) Roof b) Side walls		d) Doors	X
<ul><li>25) Which of the following provides energy</li><li>a) Water</li><li>b) Sun</li></ul>			
a) Water b) Sun	c) Man	d) Food	X

### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr

Examination - Certificate course on Renewable Energy Resources

Register No. : 52010001

B) Renewable Resources

#### Answer the all the following questions each question carries two marks $(25 \times 2 = 50)$ 1) Which of the following is a non-renewable resource? at Solar b) Geothermal c) Coal d) Tidal 2) Tidal energy is energy obtained through \_\_ b) Sunlight a) Wind c) Oceanic tides d) Biomass 3) Which one of the following is not a non-conventional energy sources? a) Coal b) Geothermal c) Tidal 4) When was Rajasthan renewable energy corporation Ltd. Established? a) 1980 -b/2002 c) 1963 d) 1956 5) In a hydroelectric power plant, the electric power is obtained from the a) Chemical energy c) Nuclear energy b) Potential energy d) Energy of water 6) Based on usability, Energy Resources are classified into a) primary, secondary and tertiary resources b) primary and secondary resources c) primary, secondary, intermediate and tertiary resources d) primary, intermediate and secondary resources 7) Which of the following is not a type of primary resource? a) Crude Oil b) Coal c) Hydrogen Energy 8) Energy Resources which are being used for many decades are known as a) conventional energy sources b) non-conventional energy sources c) primary energy sources d) fuel cells 9) Which of the statements is correct about Solar Energy? a) It is a renewable and conventional source of energy b) It is a non-renewable and non-conventional source of energy e) It is a renewable and non-conventional source of energy d) It is a non-renewable source of energy 10) Which of these resources does not produce CO2 during electricity generation? a) Coal b) Methane c) Uranium d) Biogas 11) Which of these is the major contributor to world pollution? a) Commercial resources c) Non-Commercial Resources

d) Nuclear Energy

12) Which of the energy resources wer	e considered for large so	ale use after the oil	crisis of 1973?	
		c) Non-Conventional Sources		
b) Non-renewable sources			X	
13) Which of the following is a rene			45.4	
a) Solar energy b) coal		d) natural gas	s A	
14) The unit of energy yield ratio is		a) 110001 800		
	c) joule/Kelvin	d) dimensionle	ess	
15) The only country having a full-fled				
Resources is	8	pinon of 1100 and 10	.onowable	
a) India b) Banglad	lesh c) USA	d) China		
16) Which of the following pollutants a				
a) Oxides of Carbon, Nitrogen, ar		g or robbit ract.		
b) Oxides of Carbon, Uranium, ar			~	
c) Calcium Halides and Oxides of				
d) Noble Gases	1111108011			
17) Which of the following statements	is not true about radioac	tive waste?		
a) It has radioactivity quotient of		aro wadio:		
b) The disposed radioactive waste		no neriod		
e) It has low radioactivity quotien		ng period		
d) Its radioactivity decreases with				
18) Which Oxides of Nitrogen are gene		il fiiel?		
	c) NO <sub>2</sub> , NO <sub>3</sub> , and l		<u> </u>	
	-d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>	1203		
19) Which Uranium isotope is used in a				
a) U-235 b) U-234		d) U-218		
20) is power house of satellit	Professional Control of the Control	u) 0-216		
a) Sun b) moon	c) batteries	-d) fuel		
21) What is the pH level of acid rain?	o) batteries	-u) luci	X	
a) Between 6-8 b) Between	13-4 c) 7	d) Between 11	-14	
22) What does ozone protect the earth f		u) Detween 11	17	
a) Sound waves	-c) Harmfu	LUV radiation		
b) Visible radiation	d) Greenho		1	
23) Which of the following is the clean		Just Client		
a) Natural gas b) Petrol	c) Petroleum	d) Cool		
24) Which part of a house receives maj	The second secon	d) Coal		
	lls -c) Floor	d) Doors		
		d) Doors	X	
25) Which of the following provides en	and the second s			
a) Water _b) Sun	c) Man	d) Food	1	

### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr

Date: 21/2/23

## Examination - Certificate course on Renewable Energy Resources

Register No.: 82010 00 2

swe	r the all the foll	owing questions ea	ch question carries	two marks	(25 X 2 = 5
1)	Which of the fo	ollowing is a non-rer	newable resource?		
	a) Solar	b) Geothermal	& Coal	d) Tidal	
2)	Tidal energy is	energy obtained thr	ough		
	a) Wind	b) Sunlight	C) Oceanic tide	es d) Biomas	s
3)	Which one of t	he following is not a	non-conventional e	energy sources?	
	a) Coal	b) Geothermal	c) Tidal	d) Solar	V
4)	When was Raja	asthan renewable en	ergy corporation Lt	d. Established?	~
	a) 1980	10/2002	c) 1963	d) 1956	-
5)	In a hydroelect	ric power plant, the	electric power is ob	tained from the	
	a) Chemical e		c) Nuclear ene		
	b) Potential e	nergy	d) Energy of w	rater )	_
6)	Based on usab	oility, Energy Resou	rces are classified	into	
		condary and tertiary			
		d secondary resourc			_
		condary, intermedia		ources	4
		ntermediate and seco			
7)		ollowing is not a type		e?	713-
	a) Crude Oil	b) Coal	e) Hydrogen Er		
8)	Energy Resour	rces which are beir		decades are known	
		al energy sources		abbudge die known	
		ntional energy sourc	es		<b>~</b>
		ergy sources			~
	d) fuel cells	u,			
9)	Which of the st	atements is correct a	bout Solar Energy?		
- 5		vable and convention			
		enewable and non-c			X
		vable and non-conve			
	d) It is a non-r	enewable source of	energy		
10)	Which of these	resources does not	produce CO₂ during	electricity generation	on?
	a) Coal	b) Methane	c) Uranium	d) Biogas	X
11)	Which of these	is the major contrib	utor to world pollut		
	a) Commercia		100	ercial Resources	
	b) Renewable	Resources	d) Nuclear Ene		1

12) Which of the energy resources were co	onsidered for large scale u	ase after the oil crisis	s of 1973?
	c) Non-Conventional		
b) Non-renewable sources	d) Primary Sources		X
13) Which of the following is a renewa			h
a) Solar energy b) coal	c) mineral	d) natural gas	
14) The unit of energy yield ratio is			
	c) joule/Kelvin	d) dimensionless	
15) The only country having a full-fledged	ministry for Developmen	nt of New and Renev	wable
Resources is			
a) India b) Bangladesh	*	d) China	
16) Which of the following pollutants are	emitted by the burning of	fossil fuel?	
a) Oxides of Carbon, Nitrogen, and S	ulphur		
b) Oxides of Carbon, Uranium, and R			
c) Calcium Halides and Oxides of Ni	trogen		
d) Noble Gases			
17) Which of the following statements is n	ot true about radioactive	waste?	
a) It has radioactivity quotient of dan			
b) The disposed radioactive waste is	to be guarded for a long p	eriod	
It has low radioactivity quotient			
d) Its radioactivity decreases with tim		**	
<ul><li>18) Which Oxides of Nitrogen are generate</li><li>a) NO and NO<sub>2</sub></li></ul>			
b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>5</sub>		
19) Which Uranium isotope is used in nucl	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
a) U-235 b) U-234		W U-218	~
20) is power house of satellite	c) U-215	u) 0-218	
a) Sun b) moon	c) batteries	d) fool	
21) What is the pH level of acid rain?	cy-batteries	d) fuel	X
a) Between 6-8 b) Between 3-	4 c) 7	d) Between 11-14	
22) What does ozone protect the earth from	S#1	d) Between 11-14	
a) Sound waves	e) Harmful UV	radiation	
b) Visible radiation	d) Greenhouse		
23) Which of the following is the cleanest		011001	
Natural gas b) Petrol	c) Petroleum	d) Coal	/
24) Which part of a house receives majority		<b>V</b> = 3.77727.	
a) Roof b) Side walls	c) Floor	d) Doors	
25) Which of the following provides energy	· ·		X
a) Water b) Sun	(e) Man	d) Food	10
	21		×





N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr

Date: 21/2/23

**Examination - Certificate course on Renewable Energy Resources** 

inswe	er th	e all the foll	owing questions	each que	stion carries two I	marks	(25 X 2 = 50)
1)	W	hich of the fo	ollowing is a non-r	renewabl	e resource?		
		Solar	b) Geothermal		Coal	d) Tidal	
2)	Tic	dal energy is	energy obtained t	through_		100	
		Wind	b) Sunlight		Oceanic tides	d) Biomass	
3)	W	hich one of t	he following is no	t a non-c	onventional energ		_
		Coal	b) Geothermal		) Tidal	d) Solar	
4)	W	hen was Raja	asthan renewable				
			b) 2002		1963	d) 1956	
5)	In	a hydroelect	ric power plant, th				
		Chemical e			Nuclear energy		
		Potential e			Energy of water		
6)			oility, Energy Reso				
	a)		condary and tertia				
	b)		d secondary resou		1663		
	c)		condary, intermed		tertian, recourses		
	d)		ntermediate and se				
7)			llowing is not a ty				
,,	a)	Crude Oil	b) Coal			N G 11 1 .	
0)					Hydrogen Energy		
8)	E11	ergy kesour	rces which are be	eing use	o for many decad	des are known a	S
			al energy sources				
	p)		ntional energy sou	irces			
	c)		ergy sources				
0)	d)	fuel cells					
			atements is correct				
	(8)		vable and conventi				
	0)	It is a non-r	enewable and non	-convent	onal source of ene	ergy	V
	c)		vable and non-con		source of energy		~
301			enewable source o				
10)			resources does no				) 
441		Coal	b) Methane		Uránium	d) Biogas	
11)	Wh		is the major contr				
.00	(a)	Commercia			Non-Commercial	Resources	0
	b)	Renewable	Resources	d)	Nuclear Energy		

12) V	Which of the energy	resources were c	onsidered for large sc	ale use after the oil	risis of 1973?
a	) Conventional S	Sources	(c) Non-Conventi	onal Sources	11010 01 19 15.
ь	) Non-renewable	e sources	d) Primary Source		
13) V	Which of the follo	wing is a renewa			100
	) Solar energy		6) mineral	d) natural gas	AL.
14) T	he unit of energy y			a) natural gal	,
	) joule		c) joule/Kelvin	d dimensionle	900
15) T	he only country ha	ving a full-fledge	d ministry for Develop	oment of New and R	enewable
R	esources is				E .
100	) India	b) Banglades	h c) USA	d) China	X
16) W	hich of the follow	ing pollutants are	emitted by the burnin	g of fossil fuel?	/
\a)	Oxides of Carbo	n, Nitrogen, and	Sulphur		
b)	Oxides of Carbo	n, Uranium, and l	Radium		
	Calcium Halides	and Oxides of N	itrogen		
d)					
17) W	hich of the followi	ng statements is r	not true about radioact	tive waste?	
a)	It has radioactivi	ity quotient of dan	igerous levels.		
0)	The disposed rac	lioactive waste is	to be guarded for a lo	ng period	
100	It has low radioa				
d)		decreases with tin			
10) W	NO and NO <sub>2</sub>	rogen are generat	ed by burning of fossi		
	N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>		c) NO <sub>2</sub> , NO <sub>3</sub> , and N	N <sub>2</sub> O <sub>5</sub>	
		omo in seral in ser	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
2) W	Thich Uranium isoto U-235 b) U	ope is used in nuc		1) 11 010	<b>/</b>
-	is power ho		c) U-215	d) U-218	^
	Sun b) m		(c) batteries	D.C. I	V
	hat is the pH level		by batteries	d) fuel	1
	Between 6-8		4 c) 7	New Between 11-	14
	hat does ozone pro			en between 11-	14
a)	Sound waves	toot the oath hon		UV radiation	41.
b)			d) Greenho		
	hich of the following	ng is the cleanest		use criect	
	Natural gas	b) Petrol	c) Petroleum	d) Coal	
			y of solar radiation?	w, 00u1	
	Roof	b) Side walls	c) Floor	d) Doors	
25) W	hich of the following		y for winds to blow na		X
	Water	b) Sun	c) Man	d) Food	/



## N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr	Date: 21 2 23
Examination - Certificate course on Renewable Energy Resources	0 10103
Register No.: 32010012	

Answ	er ti	ne all the fo	llowing questions	each qui	estion carries two m	arks	(25 X 2 = 50)
1	) W	/hich of the	following is a non-	renewab	le resource?		
		Solar	b) Geothermal		c) Coal	d) Tidal	
2	) Ti	dal energy i	s energy obtained		7	-,	
		Wind			c Oceanic tides	d) Biomass	
3	) W	hich one of			conventional energy		
		Coal	b) Geothermal		c) Tidal	d) Solar	~
4	) W	hen was Ra			corporation Ltd. Esta		
		1980	b) 2002		c) 1963	ad) 1956	. /
5	) In	a hydroeled			ic power is obtained		X
		Chemical			c) Nuclear energy	i from the	
		Potential			Energy of water		1
6					AND THE RESIDENCE OF THE PROPERTY OF THE PROPE		
0,					re classified into _		
	a)		secondary and terti		urces		
			nd secondary resor			>	4
	c)	primary, s	econdary, interme	ediate and	d tertiary resources		
71	d)	primary,	intermediate and s	secondar	y resources		
7)	VV	nich of the f	following is not a ty	ype of pr	imary resource?		
		Crude Oil	100	0	) Hydrogen Energy	d) Sunlight	X
8)	Er	iergy Resou	urces which are b	eing use	ed for many decade	es are known a	s
	rat	conventio	nal energy sources	5			
	b)	non-conve	entional energy sou	urces			1/
	c)		nergy sources				
	d)	fuel cells					
9)	W.	hich of the s	tatements is correc	t about S	Jolar Energy?		
	a)	It is a rene	wable and convent	tional sou	irce of energy		
	b)	It is a non-	renewable and non	1-conven	tional source of ener	σv	1/
	ve)	It is a rene	wable and non-con	ventiona	I source of energy	<i>6)</i>	
	d)	It is a non-	renewable source of	of energy	,		
10	) WI	hich of these	e resources does no	ot produ	ce CO <sub>2</sub> during electri	city generation?	
	a)	Coal	b) Methane	20	Uranium	d) Biogas	1/
11	) Wł	nich of these	is the major contr	ributor to	world pollution?	u) biogas	
	at	Commercia	al resources				
	b)		Resources		Non-Commercial R	esources	./
	-1		- Nesources	a	Nuclear Energy		

12) Which of the energy resources were co	nsidered for large scale a	ase after the oil cris	is of 1973?
	c) Non-Conventiona		
b) Non-renewable sources			X
13) Which of the following is a renewal	ole resource?		
Solar energy b) coal	c) mineral	d) natural gas	1
14) The unit of energy yield ratio is			
a) joule b) watt	c) joule/Kelvin	d) dimensionless	
15) The only country having a full-fledged	ministry for Developme	nt of New and Rene	ewable
Resources is		*	1
a) India b) Bangladesh		d) China	×
16) Which of the following pollutants are e		fossil fuel?	~
Oxides of Carbon, Nitrogen, and S			
b) Oxides of Carbon, Uranium, and R		_	
c) Calcium Halides and Oxides of Ni	rogen		
d) Noble Gases			
17) Which of the following statements is no		waste?	
a) It has radioactivity quotient of dang			
<ul> <li>b) The disposed radioactive waste is t</li> <li>c) It has low radioactivity quotient</li> </ul>	o be guarded for a long p	eriod	
d) Its radioactivity decreases with tim			
18) Which Oxides of Nitrogen are generate		a19	
	c) NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O <sub>3</sub>		
	d) $NO_3$ and $N_2O_5$		_
19) Which Uranium isotope is used in nucl			-
(a) U-235 b) U-234	c) U-215	d) U-218	
20) is power house of satellite			
(a) Sun b) moon	c) batteries	d) fuel	
21) What is the pH level of acid rain?			
a) Between 6-8 b) Between 3-4	4 c) 7	d) Between 11-14	V
22) What does ozone protect the earth from	1?		
a) Sound waves	c) Harmful UV	radiation	
b) Visible radiation	d) Greenhouse	effect	X
23) Which of the following is the cleanest t			
a) Natural gas b) Petrol	c) Petroleum	Ld) Coal	X
24) Which part of a house receives majority		0.5	
a) Roof b) Side walls		d) Doors	X
25) Which of the following provides energy			, _
a) Water b) Sun	c) Man	d) Food	1

- 1



### N.R colony Bangalore-560019

Department of Physics

Durat	ion: 1 hr		artificite of Friyaica		Mate: 21/2/23
			course on Renewable Ene	ergy Resources	
Register	r No. : \$2010	0013			
Answer	the all the follo	wing questions eac	h question carries two ma	arks	(25 X 2 = 50)
43					
1)		llowing is a non-ren			
2)		b) Geothermal	c Coal	d) Tidal	
		energy obtained thro			
		b) Sunlight	c) Oceanic tides	d) Biomass	
			non-conventional energy		
		b) Geothermal	c) Tidal	d) Solar	X
			ergy corporation Ltd. Esta		~
	a) 1980	b) 2002	c) 1963	d) 1956	
5)			electric power is obtained	from the	
	a) Chemical er		c) Nuclear energy		
	b) Potential en	nergy	d) Energy of water		
6)	Based on usabi	lity, Energy Resou	rces are classified into _	y	
	a) primary, sec	condary and tertiary	resources		
	b) primary and	secondary resourc	es		
	c) primary, sec	condary, intermedia	te and tertiary resources		*
	d) primary, int	termediate and seco	ondary resources		
7)	Which of the fol	llowing is not a type	of primary resource?		
	a) Crude Oil	4b) Coal	c) Hydrogen Energy	d) Sunlight	X
8)	Energy Resour	ces which are beir	ng used for many decade	es are known a	as
		al energy sources			
		tional energy sourc	es		1
	c) primary ene				
	d) fuel cells	3,			
		tements is correct a	bout Solar Energy?		
		able and convention			
			onventional source of ener	gv	
			ntional source of energy		
		enewable source of			
10)	Which of these	resources does not	produce CO₂ during electr	icity generation	1?
		b) Methane	رب Uranium	d) Biogas	
11)		(10 M) (3-00 km -3-00 km /3-00	utor to world pollution?	Section 1	
	a) Commercial		c) Non-Commercial R	esources	
	b) Renewable		d) Nuclear Energy		

(12) which of the energy re				isis of 1973?
a) Conventional So		- I Production of the Control of the	11 Sources	
		d) Primary Sources		X
13) Which of the followi				
Solar energy			d) natural gas	100
14) The unit of energy yiel				
a) joule		c) joule/Kelvin		
15) The only country having	ng a full-fledged	ministry for Developme	ent of New and Re	newable
Resources is				
a) India	b) Bangladesh		d) China	
16) Which of the following			f fossil fuel?	
oa) Oxides of Carbon,				
<ul><li>b) Oxides of Carbon,</li></ul>	Uranium, and R	adium		
<ul> <li>c) Calcium Halides a:</li> </ul>	nd Oxides of Nit	trogen		
d) Noble Gases				
17) Which of the following			waste?	
<ul> <li>a) It has radioactivity</li> </ul>	The second of th			
		o be guarded for a long	period 🗸	
e) It has low radioact	ivity quotient			
<ul> <li>d) Its radioactivity de</li> </ul>				
18) Which Oxides of Nitro	gen are generate	ed by burning of fossil fu	iel?	
a) NO and NO <sub>2</sub>		c) NO2, NO3, and N2O	)s 🗸	
b) $N_2O_5$ and $N_2O_3$		Vd) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
19) Which Uranium isotop	e is used in nucl	ear power plants?		
a) U-235 b) U-2	34	c) U-215	d) U-218	
20) is power hou	se of satellite			
a) Sun b) mod	on	c) batteries	d) fuel	
21) What is the pH level of	facid rain?			
a) Between 6-8	b) Between 3-4	4 c) 7	d) Between 11-1	14
22) What does ozone prote	ct the earth from	1?		
a) Sound waves		c) Harmful U	V radiation	
b) Visible radiation		d) Greenhouse	eeffect	
23) Which of the following	s is the cleanest f	fossil fuel?		
(a) Natural gas	b) Petrol	c) Petroleum	d) Coal	
24) Which part of a house i	receives majority	y of solar radiation?		
a) Roof	b) Side walls	c) Floor	d) Doors	V
25) Which of the following	provides energy	for winds to blow note		X
	, provides offer b	y tot willus to blow flatu	rally?	





### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr

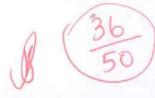
Date: 21 2 23

**Examination - Certificate course on Renewable Energy Resources** 

Register No. : \$2010014

nswe	r the all the fo	ollowing questions ea	ach question carries two n	narks	(25 X 2 = 50)
1)	Which of the	following is a non-re	newable resource?		
	a) Solar	b) Geothermal	e Coal	d) Tidal	
2)	Tidal energy	is energy obtained th	rough		
	a) Wind	b) Sunlight	e) Oceanic tides	d) Biomass	
3)	Which one o	f the following is not	a non-conventional energy	sources?	
	at Coal	b) Geothermal	c) Tidal	d) Solar	
4)	When was R	ajasthan renewable e	nergy corporation Ltd. Esta	ablished?	
	a) 1980	by 2002	c) 1963	d) 1956	
5)	In a hydroele	ectric power plant, the	e electric power is obtaine	d from the	
	a) Chemica	l energy	c) Nuclear energy		
	b) Potentia	l energy	_d') Energy of water		
6)	Based on us	ability, Energy Reso	urces are classified into		
,	ar primary,	secondary and tertia	ry resources		
	b) primary	and secondary resour	ces		$\times$
	c) primary,	secondary, intermed	iate and tertiary resources		
	d) primary,	intermediate and se	condary resources		
7)	Which of the	following is not a typ	e of primary resource?		
	a) Crude O	il b) Coal	c) Hydrogen Energy	d Sunlight	X
8)	Energy Reso	ources which are be	ing used for many decad	es are known a	S
_		onal energy sources			
	b) non-conv	entional energy sour	ces		
	c) primary e	energy sources		V	
	d) fuel cells				
9)	Which of the	statements is correct	about Solar Energy?		
1		ewable and convention			
			conventional source of ene	rgy	X
			entional source of energy		
	500	n-renewable source of			
			produce CO <sub>2</sub> during election	icity generation	?
	a) Coal	b) Methane	e Uranium	d) Biogas	
			outor to world pollution?		
,	a) Commerc		c) Non-Commercial F	Resources	/
	b) Renewab	le Resources	d) Nuclear Energy	L	

12) which of the energy resources were c			sis of 1973?
a) Conventional Sources			
b) Non-renewable sources	d) Primary Source	S	X
13) Which of the following is a renewa	able resource?		
a) Solar energy b) coal	c) mineral	d) natural gas	1
14) The unit of energy yield ratio is			
a) joule b) watt	c) joule/Kelvin	d) dimensionless	1
15) The only country having a full-fledge			
Resources is			
a) India b) Banglades	h c) USA	d) China	
16) Which of the following pollutants are	emitted by the burning	of fossil fuel?	
a) Oxides of Carbon, Nitrogen, and	Sulphur		
b) Oxides of Carbon, Uranium, and	Radium		
c) Calcium Halides and Oxides of N	litrogen		
d) Noble Gases			
17) Which of the following statements is	not true about radioacti	ve waste?	
<ul> <li>a) It has radioactivity quotient of dan</li> </ul>	ngerous levels.		
<ul> <li>The disposed radioactive waste is</li> </ul>	to be guarded for a lon	g period	
It has low radioactivity quotient			
d) Its radioactivity decreases with tir			
18) Which Oxides of Nitrogen are general	ted by burning of fossil	fuel?	
a) NO and NO <sub>2</sub>	c) NO2, NO3, and N	<sub>2</sub> O <sub>5</sub>	X
b) $N_2O_5$ and $N_2O_3$	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
19) Which Uranium isotope is used in nuc	clear power plants?		
a) U-235 b) U-234	c) U-215	d) U-218	
20) is power house of satellite			
	<ul><li>c) batteries</li></ul>	d) fuel	
21) What is the pH level of acid rain?			
a) Between 6-8 b) Between 3	2.6.12	d) Between 11-14	1
22) What does ozone protect the earth from	and the second second		
a) Sound waves		UV radiation	
b) Visible radiation	d) Greenhou	ise effect	
23) Which of the following is the cleanest	fossil fuel?		
A) Natural gas b) Petrol	c) Petroleum	d) Coal	
24) Which part of a house receives majori			
a) Roof b) Side walls	c) Floor	d) Doors	
25) Which of the following provides energy a) Water b) Sun			



### N.R colony Bangalore-560019

Department of Physics

	рере	artificiti of Fifysics		
Duration	n: 1 hr			Date: 21/2/23
	<b>Examination - Certificate</b>	course on Renewable Ene	ergy Resources	
Register N	0.:52010015			
Answer th	e all the following questions each	ch question carries two m	arks	(25 X 2 = 50)
	hich of the following is a non-ren			
	Solar b Geothermal	2. C.	d) Tidal	X
	dal energy is energy obtained thr			
a)	Wind b) Sunlight	e) Oceanic tides	d) Biomass	
3) W	hich one of the following is not a	non-conventional energy	sources?	- /
a)	Coal b) Geothermal	_c) Tidal	d) Solar	7
4) W	hen was Rajasthan renewable en	ergy corporation Ltd. Esta	blished?	
a)	1980 572002	c) 1963	d) 1956	
5) In	a hydroelectric power plant, the	electric power is obtained	from the	
a)	Chemical energy	c) Nuclear energy		
b)	Potential energy	d) Energy of water		
6) Ba	ased on usability, Energy Resou	rces are classified into _		
a)	primary, secondary and tertiary	resources		
b)	primary and secondary resourc	es		.×
et	primary, secondary, intermedia	ite and tertiary resources		
d)	primary, intermediate and seco	ondary resources		
7) W	hich of the following is not a type	of primary resource?		
a)	Crude Oil b) Coal	c) Hydrogen Energy	d Sunlight	X
8) Er	nergy Resources which are beir	ng used for many decade	es are known a	S
	conventional energy sources			
	non-conventional energy source	es		
c)				
d)	fuel cells			
9) W	hich of the statements is correct a	bout Solar Energy?		
a)	It is a renewable and convention			
b)	It is a non-renewable and non-c	onventional source of ener	gy	
_ey	It is a renewable and non-conve	entional source of energy		
d)	It is a non-renewable source of	energy		
10) W	hich of these resources does not	produce CO2 during electr	icity generation	?
a)	Coal b) Methane	e) Uranium	d) Biogas	1/
11) W	hich of these is the major contrib	utor to world pollution?		
_at	Commercial resources	c) Non-Commercial R	Resources	
b)	Renewable Resources	d) Nuclear Energy		

12) Which of the energy resources were co	onsidered for large scale	use after the oil crisis of 1973?
a) Conventional Sources	A) Non-Convention	al Sources
b) Non-renewable sources	d) Primary Sources	
13) Which of the following is a renewal		
	c) mineral	d) natural gas
14) The unit of energy yield ratio is		w) 22400 E
	c) joule/Kelvin	d) dimensionless
15) The only country having a full-fledged		
Resources is		
a) India b) Bangladesh		d) China
16) Which of the following pollutants are e	emitted by the burning o	f fossil fuel?
a) Oxides of Carbon, Nitrogen, and S	ulphur	
b) Oxides of Carbon, Uranium, and R		
c) Calcium Halides and Oxides of Nit	rogen	
d) Noble Gases	100 34 2 52 2	
17) Which of the following statements is no	ot true about radioactive	waste?
a) It has radioactivity quotient of dang		
<ul><li>b) The disposed radioactive waste is to</li><li>c) It has low radioactivity quotient</li></ul>	o be guarded for a long	period
	_	
d) Its radioactivity decreases with time		10
18) Which Oxides of Nitrogen are generated	d by burning of fossil fu	
d) Its radioactivity decreases with time 18) Which Oxides of Nitrogen are generate a) NO and NO <sub>2</sub>	d by burning of fossil fu c) NO2, NO3, and N2O	
d) Its radioactivity decreases with time 18) Which Oxides of Nitrogen are generate a) NO and NO <sub>2</sub> b) N <sub>2</sub> O <sub>5</sub> and N <sub>2</sub> O <sub>3</sub>	d by burning of fossil fu c)-NO <sub>2</sub> , NO <sub>3</sub> , and N <sub>2</sub> O d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>	
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### N.R colony Bangalore-560019

Department of Physics

Duration: 1 hr Date: 21/2/23

Examination - Certificate course on Renewable Energy Resources

Kegi	ster	No.:	52010	016				
Ansv	wer	the a	ll the foll	owing questions e	ach questi	on carries two ma	arks_	(25 X 2 = 50)
	1) \	Whicl	h of the f	ollowing is a non-re	enewable r	esource?		
		a) S		b) Geothermal	-c) T		d) Tidal	
2	2)	Tidal	energy is	energy obtained th			-,	
		a) W		b) Sunlight		ceanic tides	d) Biomass	
3	3) 1	Which	n one of t	he following is not				
		a) C		b) Geothermal			d) Solar	*
	4) \	When	was Raja	asthan renewable e	nergy corp	ooration Ltd. Estal		_
		a) 19		_b)-2002		963	d) 1956	
5	5) 1	n a h	ydroelect	ric power plant, th	e electric p	ower is obtained		
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6	5) E	Based	d on usab	oility, Energy Reso				
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1				resources does not		CO₂ during electri	city generation	
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1	1) V	Vhich	of these	is the major contril	The second second		- V	
				l resources		on-Commercial Re	esources	
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a) Conventional Sources			CHSIS OF 1973!
b) Non-renewable sources			
13) Which of the following is a ren			
a) Solar energy b) coal		d) natural ga	as #
14) The unit of energy yield ratio is		,	
	c) joule/Kelvin	d) dimension	less
15) The only country having a full-fle	7.5		
Resources is			
a) India b) Bangla	ndesh c) USA	d) China	
16) Which of the following pollutants	are emitted by the burning	g of fossil fuel?	
(a) Oxides of Carbon, Nitrogen, a	and Sulphur		
b) Oxides of Carbon, Uranium, a	and Radium		
c) Calcium Halides and Oxides of	of Nitrogen		
d) Noble Gases			
17) Which of the following statements		tive waste?	
<ul> <li>a) It has radioactivity quotient of</li> </ul>			
b) The disposed radioactive was		ng period	
_c) It has low radioactivity quotie			
d) Its radioactivity decreases wit		11.6.10	
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<ul> <li>b) N<sub>2</sub>O<sub>5</sub> and N<sub>2</sub>O<sub>3</sub></li> <li>19) Which Uranium isotope is used in</li> </ul>	d) NO <sub>3</sub> and N <sub>2</sub> O <sub>5</sub>		
a) U-235 b) U-234	c) U-215	d) U-218	
20) is power house of satelli		u) 0-216	
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a) Sound waves		1 UV radiation	
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23) Which of the following is the clea			
a) Natural gas b) Petrol	c) Petroleum	d) Coal	. /
24) Which part of a house receives ma			
a) Roof b) Side w		d) Doors	
25) Which of the following provides of	energy for winds to blow	naturally?	
a) Water b) Sun	c) Man	d) Food	1

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of Sem B.A. has successfully completed 30 hrs/ 01 cred	its
Value Added course with grade 0	
This Value added Course is in addition to his/her undergraduate course during the year	23
Date: AR. AR. AR. AR. Programme Co-Ordinator  Principal descriptions of the inches of	

O=Outstanding(80-100)

Grades: