DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

13.05.2024

Report of "Online Technical Quiz" for plus two students

CONVENERS:	RESOURCE PERSONS:
Dr. C. Tharini, Prof.& Dean / SECS Dr. R. Jayashree, Prof.& HoD/EEE **COORDINATORS:** Dr. R. Zahira, Associate Professor Dr. K. Sarmila Har Beagam, Asst. Prof. (Sel. Gr) Dr. V. Pramila, Asst. Prof.	**DATE & TIME :** 11th May 2024, 10.00 AM – 12.00 PM **Quiz Link:** https://docs.google.com/forms/d/e/1FAIpQLSfr4gyHhrb6xdhjXgiaVshgMxo2XU0E_U0iLpgcKpj8hA1BEw/viewform?usp=sf_link **Maximum No. of participants :33**

An online Technical Quiz for plus two students was conducted on 11.05.2024, 10.00 A.M – 12.00 P.M through Quiz link. It was organized by the Department of Electrical and Electronics Engineering. The medium of instruction for this Quiz was English. The report discusses about the following aspects of the programme:

1. Programme Schedule of the Quiz Programme

The brochure highlighting the necessary information about the Quiz Programme was designed andcirculated. The schedule is displayed below,

There was **No Registration Fee** for the participants attending the Quiz Programme.

Program Overview:

The quiz consisted of multiple choice questions, each covering a range of topics, including basic science and maths which as follows:

2024 Quiz 11.05.2024

The quiz is conducted by the Department of Electrical and Electronics Engineering , BSA Crescent Institute of Science and Technology, Vandalur, Chennai . The main aim of this quiz is to help the Higher Secondary (Eleventh and Twelfth)students to understand the concepts and to get an experience in the core subjects namely, Maths , Physics and Chemistry. We strongly believe that this exercise would help you to face your final exams with more confidence. Wishing you a Happy Learning! All the very Best.

* Indicates required question

1. Email *

    _____

2. Name in CAPITAL LETTERS (To be printed in the Certificate) *

    _____

3. Name of the School *

    _____

4. Class *

    Mark only one oval.

    ( ) 12th

    ( ) 11th

    ( ) Other: _____

5. Mobile Number for communication(whatsapp) *

    _____

    Quiz questions

6.   The function f(x) = tan x – x *

Mark only one oval.

◯ always increases

◯ always decreases

◯ sometimes increases and sometimes decreases

◯ never increases

7.   If x is real, the minimum value of x^2 – 8x + 17 is *

Mark only one oval.

◯ -1

◯ 0

◯ 1

◯ 2

8.   The function f(x) = $2x^3$ – $3x^2$ – 12x + 4 has *

Mark only one oval.

◯ two points of local maximum

◯ two points of local minimum

◯ one maxima and one minima

◯ no maxima or minima

9.   Maximum slope of the curve y = $-x^3$ + $3x^2$ + 9x – 27 is *

Mark only one oval.

◯ 0

◯ 12

◯ 16

◯ 32

10. If A, B and C are three sets such that A ∩ B = A ∩ C and A ∪ B = A ∪ C. then *

Mark only one oval.

- ⬭ A = B
- ⬭ A = C
- ⬭ B = C
- ⬭ A ∩ B = d

11. If A and B are square matrices then (AB)' = *

Mark only one oval.

- ⬭ B'A'
- ⬭ A'B'
- ⬭ AB'
- ⬭ B'A

12. *

$$\text{If } \begin{bmatrix} 1-x & 2 \\ 18 & 6 \end{bmatrix} = \begin{bmatrix} 6 & 2 \\ 18 & 6 \end{bmatrix} \text{ then x =}$$

Mark only one oval.

- ⬭ ±6
- ⬭ 6
- ⬭ -5
- ⬭ 7

13. *

$$\text{If } A = \begin{vmatrix} 1 & 1 & 1 \\ 1 & 1 & 1 \\ 1 & 1 & 1 \end{vmatrix} \text{ then } A^2 \text{ is}$$

Mark only one oval.

○ 27 A

○ 2 A

○ 3 A

○ 1

14. Three identical charges are placed at the corners of an equilateral triangle. If *
the force between any two charges is 10 N, then the net force on each charge
is

Mark only one oval.

○ zero

○ 20.89 N

○ 30.45 N

○ 17.32 N

15. Four identical capacitors are connected first in series and then in parallel. The *
ratio of effective capacitance is

Mark only one oval.

○ 1:4

○ 4:1

○ 1:16

○ 16:1

16. A bullet of mass 5 g has a charge of 0.5 µC . The potential difference through *
which it must be accelerated from rest to acquire a speed of 3 m/s is

Mark only one oval.

⬭ 45 x10^3 V

⬭ 45x10^-3 V

⬭ 45x10^6 V

⬭ 45 V

17. A wire of resistance 10 Ω is stretched four times its original length. The *
resistance of the stretched wire is

Mark only one oval.

⬭ 160 Ω

⬭ 40 Ω

⬭ 2.5 Ω

⬭ 400 Ω

18. Two identical cells send the same current through a resistance of 10 Ω when *
these are initially connected in series and then in parallel. The internal
resistance of each cell is

Mark only one oval.

⬭ 20 Ω

⬭ 10 Ω

⬭ 5 Ω

⬭ 1 Ω

19. Three inductors each of inductance L are connected in parallel. The net inductance is *

Mark only one oval.

⬭ 3 L

⬭ L / 3

⬭ 3 / L

⬭ L

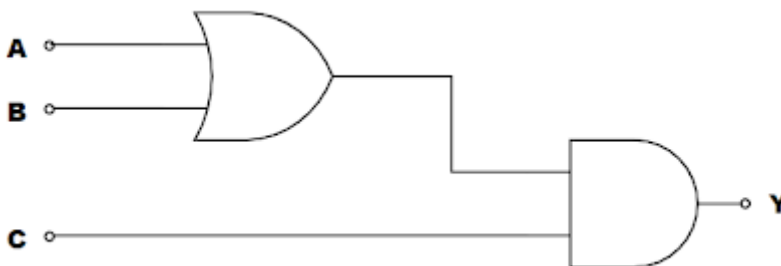
20. The flux linked with a coil at any time 't' is given by the equation given below. *
The induced emf when t = 2s is

$$\phi = 5t^3 - 7t^2 + 18t + 40$$

Mark only one oval.

⬭ 50 V

⬭ 30 V

⬭ -50 V

⬭ 70 V

21. The output(Y) of the following circuit is 1 when the input ABC is *

Mark only one oval.

⬭ 101

⬭ 100

⬭ 110

⬭ 010

22. An optician prescribes spectacles to a patient with a combination of a convex *
    lens of focal length 40 cm and a concave lens of focal length 25 cm. The
    power of the spectacles is

    Mark only one oval.

    ○ - 6.5 D

    ○ -1.5 D

    ○ 1.5 D

    ○ 6.5 D

23. A proton and an alpha particle have the same kinetic energy. The ratio of de *
    Broglie wavelengths associated with them is

    Mark only one oval.

    ○ 4:1

    ○ 2:1

    ○ 1:2

    ○ 1:1

24. The energy of the electron in the third orbit of the hydrogen atom is -1.51 eV. Its
    potential energy is

    Mark only one oval.

    ○ -13.6 eV

    ○ 1.51 eV

    ○ -1.51 eV

    ○ -3.02 eV

25. Hydrogen atoms are excited from the ground state to the excited state n=5.   *
The number of spectral lines observed will be

Mark only one oval.

- ⬭ 4
- ⬭ 6
- ⬭ 5
- ⬭ 10

26. Helium is used in balloons in the place of, hydrogen because it is_____ *

Mark only one oval.

- ⬭ incombustible
- ⬭ lighter than hydrogen
- ⬭ radioactive and detected easily
- ⬭ incombustible and lighter than hydrogen

27. Electrolytic reduction of nitrobenzene in a strongly acidic medium gives *

Mark only one oval.

- ⬭ p - aminophenol
- ⬭ azoxybenzene
- ⬭ m-nitroaniline
- ⬭ aniline

28. Which one of the following is not correct? *

Mark only one oval.

- ⬭ La is actually an element of transition metal series rather than lanthanide series
- ⬭ Atomic radii of Zr and Hf are same because of lanthanide contract
- ⬭ La(OH)2 is less basic than Lu(OH)3
- ⬭ In lanthanoid series ionic radius of Ln3+ ions decreases

29. The compound that is used in nuclear reactors as protective shields and control rods is *

Mark only one oval.

○ metal carbonates

○ Metal borides

○ Metal oxides

○ metal carbide

30. Which among the following is a modification of penicillin? *

Mark only one oval.

○ Crythromycin

○ amoxicillin

○ catecholamine

○ all the above

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B.S. ABDUR RAHMAN CRESCENT INSTITUTE OF SCIENCE AND TECHNOLOGY

Department of Electrical and Electronics Engineering

Online Quiz Competetion for 12th students on 11th May 2024

S.No	Timestamp	Email Address	Score	Name in CAPITAL LETTERS (To be printed in the Certificate)	Name of the School	Class	Mobile Number for communication(whatsapp)
1	5/11/2024 15:15:30	anusnps2003@gmail.com	19 / 25	P S ANUSRI 850	Chinmaya Vidhyalaya Hr.Sec School	12th	994086176
2	5/11/2024 10:07:24	durairajkavitha144@gmail.com	15 / 25	SHAGILAN U 550 AMMOOR	LFC MAT HR SEC SCHOOL	12th	97891151743
3	5/11/2024 10:28:07	sivaiyappan297@gmail.com	15 / 25	SIVA.I 500	Sri Rama Krishna Higher secondary school	12th	934254684
4	5/11/2024 14:25:04	begumnoori555@gmail.com	14 / 25	MOHAMMED ANAS	Crescent higher secondary school	11th	9959755015
5	5/11/2024 17:33:24	mk4503512@gmail.com	13 / 25	KEERTHANA M 400	Sri Ramakrishna Hr Sec school Tisaiyanvilai	12th	7092751002
6	5/11/2024 10:37:28	w956330@gmail.com	12 / 25	VENKATESH	NARAYANA	12th	63091136758
7	5/11/2024 10:03:30	esakkieswarimanickam21@gmail.com	12 / 25	ESAKKI ESWARI M	Sri Ramkrishna higher secondary school	12th	9994064227
8	5/11/2024 10:54:49	shankarveresi@gmail.com	11 / 25	VERESI SIVA SHANKAR	GGHSS,Pattukkottai	12th	9160041264
9	5/11/2024 10:37:30	annemhemanthreddy6@gmail.com	10 / 25	ANNEM HEMANTH REDDY	GGHSS,Pattukkottai	12th	9948195869
10	5/11/2024 13:50:59	arshadkasim3@gmail.com	10 / 25	A.ARSHAD KASIM	Crescent higher secondary school	12th	9080257154
11	5/11/2024 15:35:03	shahid733sha@gmail.com	10 / 25	SHAHID AFRIDI	Government boys HR sec school palacode	12th	7339117962
12	5/11/2024 13:05:47	itzdeva320@gmail.com	10 / 25	DEVA DHARSHINI. S	National academy	12th	80561145235
13	5/11/2024 14:27:17	velurupraveenkumar313@gmail.com	10 / 25	VELURU PRAVEEN KUMAR NARAYANA	Sri Ramkrishna higher secondary school	12th	9177241950
14	5/11/2024 9:35:46	mk4503512@gmail.com	10 / 25	Kumar	Sri Ramkrishna higher secondary school		
15	5/11/2024 9:52:04	dineshkarthikm2929@gmail.com	10 / 25	Dinesh Karthick	secondary school		
16	5/11/2024 22:17:11	mdumar050427@gmail.com	9 / 25	MOHAMMED UMAR	Al-hilal matric hr sec school	12th	9942397513
17	5/21/2024 10:20:09	mdumar050427@gmail.com	9 / 25	MOHAMMED UMAR	Al-hilal matric hr sec school	12th	6384327023
18	5/11/2024 10:09:36	kishorekumarvivek@gmail.com	9 / 25	V KISHOREKUMAR	NARAYANA	12th	9342977251
19	5/11/2024 16:25:40	ahmdruwais@gmail.com	8 / 25	RUWAIS.N	Crescent school	11th	81480871572
20	5/20/2024 23:12:07	nasurdeen376@gmail.com	8 / 25	IMTHIYAS M	National academy	12th	9843312276
21	5/11/2024 10:31:51	durai123p@gmail.com	8 / 25	IN ENGLISH	SRI RAMAKRISHNA HR SEC SCHOOL	12th	638263472

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Online Quiz Competetion for 12th students on 11th May 2024

No	Timestamp	Email	Score	Name	School	Class	Phone
22	5/11/2024 11:40:24	gabinaya2007@gmail.com	8 / 25	ABINAYA G	Sri Ramakrishna Hr Sec School	12th	7904665731
23	5/11/2024 11:05:01	sjayasrirocketscience@gmail.com	7 / 25	S.JAYASRI	GGHSS,Pattukkottai	12th	8220493371
24	5/11/2024 10:15:09	vy956330@gmail.com	7 / 25	VENKATESH NARAYANA		12th	6309136758
25	5/11/2024 10:26:37	keerthikashanmugam482@gmail l.com	7 / 25	KEERTHIKA S	Sri Ramakrishna Higher Secondary school,Tisaiyanvilai	12th	8148067660
26	5/11/2024 10:27:34	kowsalyaperiyasami40@gmail.c om	7 / 25	IN TAMIL	SRI RAMAKRISHNA HR SEC SCHOOL. THISAYANVILLAI	12th	6383263472
27	5/21/2024 22:22:41	i9808998@gmail.com	6 / 25	Imthiyas M	National academy	12th	9843312276
28	5/11/2024 10:24:56	iyappananusuya@gmail.com	6 / 25	Anu	Sri Ramakrishna Higher Secondary school,Tisaiyanvilai	12th	9578349019
29	5/11/2024 14:54:59	basker0496@gmail.com	6 / 25	VIDHYA	Sri Ramakrishna Hr. Sec. School thisaiyanvillai	12th	9360877446
30	5/11/2024 10:44:33	kalaimagalrocketscience@gmail .com	6 / 25	KALAIMAGAL S	Government Model School,Vallam, Thanjavur Thanjavur District	12th	8870671141
31	5/11/2024 10:11:56	aruna04082005@gmail.com	5 / 25	Aruna.A	GGHSS,Pattukkottai	12th	88386 13944
32	5/11/2024 10:23:10	iyappananusuya@gmail.com	4 / 25	Anusuya	Sri Ramakrishna Higher Secondary school,Tisaiyanvilai	12th	9578349019
33	5/11/2024 16:09:13	mssugi962@gmail.com	4 / 25	M.SUGI	Sri Ramakrishna Hr. Sec. School	12th	6385609167

R. Jayanthi 24/5/24
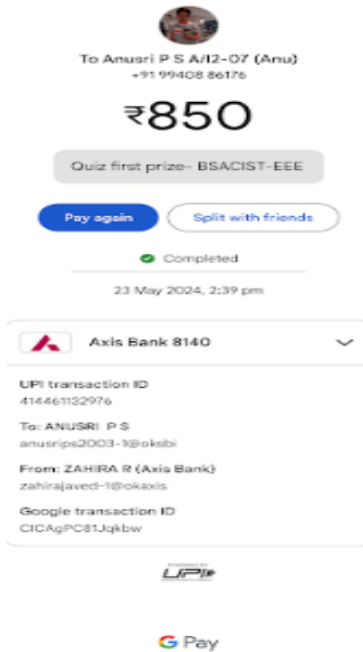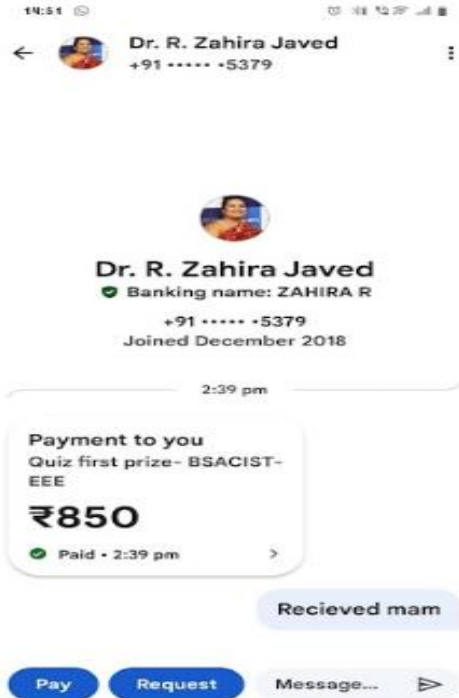HOD/EEE

Prize Winners:

The winners were recognized for their outstanding performance in the event, and encouraged with cash awards as follows:

S.No	Name of the Participant	Name of the School	Mark Scored out of 25	Prize	Prize Amount
1	P S ANUSRI	Chinmaya Vidhyalaya Hr.Sec School	19	First	850
2	SHAGILAN U	LFC MAT HR SEC SCHOOL AMMOOR	15	Second	500
3	SIVA.I	Sri Rama Krishna Higher secondary school	15	Second	500
4	KEERTHANA M	Sri Ramakrishna Hr Sec school Tisaiyanvilai	13	Third	400

Transaction Proof:

Proof for Amount Sent	Proof for amount received
1.P S ANUSRI- First prize-Rs.850	

A total of 33 plus two attended the Quiz Programme. The Technical Quiz Programme, organized for Plus Two students, concluded successfully with enthusiastic participation and commendable performances from all the participants. The event, aimed to promote interest in science, technology, and engineering among young students, providing them with a platform to showcase their technical knowledge and problem-solving abilities.

Dr. R. Zahira   Dr. K.Sarmila Har Beagam   Dr.V. Pramila

Associate Professor   Asst. Prof. (Sel. Gr)   Asst. Prof.

Dr. R.Jayashree, Prof.&HoD/EEE