Test Booklet No. _____

This booklet consists of 100 questions and __ printed pages.

RGUCET/2025/25

Series A

RGUCET 2025
Common Entrance Test, 2025
MASTER OF SCIENCE IN ELECTRONICS

Full Marks: 100 **Time: 2 Hours**

Roll No. | | | | | | | | |

Day and Date of Examination: _____

Signature of Invigilator(s) _____

Signature of Candidate _____

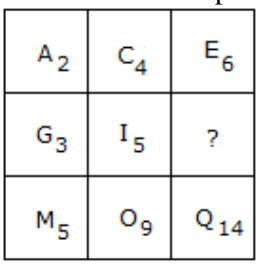
General Instructions:

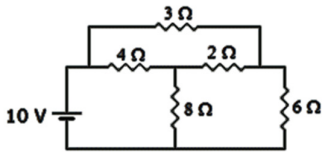
PLEASE READ ALL THE INSTRUCTIONS CAREFULLY BEFORE MAKING ANY ENTRY.

1. DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO.
2. Candidate must write his/her Roll Number on the space provided.
3. This Test Booklet contains 100 Multiple Choice Questions (MCQs) from the concerned subject. Each question carries 1 mark. There shall be negative marking of 0.25 against each wrong attempt.
4. Please check the Test Booklet to verify that the total pages and total number of questions contained in the test booklet are the same as those printed on the top of the first page. Also check whether the questions are in sequential order or not.
5. Candidates are not permitted to enter into the examination hall after the commencement of the entrance test or leave the examination hall before completion of Examination.
6. Making any identification mark in the OMR Answer Sheet or writing Roll Number anywhere other than the specified places will lead to disqualification of the candidate.
7. Candidates shall maintain silence inside and outside the examination hall. If candidates are found violating the instructions mentioned herein or announced in the examination hall, they will be summarily disqualified from the entrance test.
8. In case of any dispute, the decision of the Entrance Test Committee shall be final and binding.
9. The OMR Answer Sheet consists of two copies, the Original copy and the Student's copy

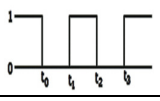
1	Choose the word which best expresses the meaning of the given below: “COMMENSURATE”				Proportionate
	a) Measurable	b) Proportionate	c) Begining	d) Appropriate	b
2	Choose the one which best expresses the given sentence in Indirect/Direct speech. "If you don't keep quiet I shall shoot you", he said to her in a calm voice.				He warned her calmly that he would shoot her if she didn't keep quiet.
	a) He warned her to shoot if she didn't keep quiet calmly.	b) He said calmly that I shall shoot you if you don't be quiet.	c) He warned her calmly that he would shoot her if she didn't keep quiet.	d) Calmly he warned her that be quiet or else he will have to shoot her.	c
3	Identify the correct sentence from the given sentences.				You and not I are guilty for the accident
	a) You but I am guilty for the accident.	b) You and not I are guilty for the accident.	a) You but I am guilty for the accident.	b) You and not I are guilty for the accident.	a
4	Fill in the blank He insisted_____.				on my going
	a) on me going	b) on I going	c) for me to go	d) on my going	d
5	The weather outside was extremely pleasant and hence we decided to				enjoy a morning ride in the open
	a) utilise our time in watching the television	b) refrain from going out for a morning walk	c) enjoy a morning ride in the open	d) employ this rare opportunity for writing letters	c
6	Which of the following are the members of SAARC (South Asian Association for Regional Cooperation)?				Bhutan, Bangladesh, Maldives, Nepal, India, Pakistan, Afghanistan and Sri Lanka
	a)Bhutan, Bangladesh, India and Pakistan	b)Bhutan, Bangladesh, Maldives, Nepal, India,	c)Afghanistan, Pakistan, Thailand, Indonesia,	d)None of the above	b

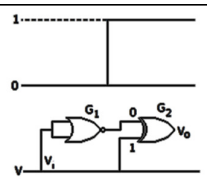
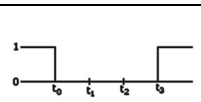
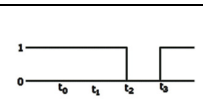
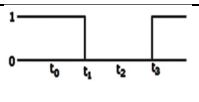
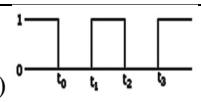
		Pakistan, Afghanistan and Sri Lanka	Nepal and Sri Lanka		
7	Garampani sanctuary is located at				Diphu, Assam
	a) Junagarh, Gujarat	b) Diphu, Assam	c) Kohima, Nagaland	d) Gangtok, Sikkim	b
8	Logarithm tables were invented by				John Napier
	a) John Napier	b) John Doe	c) John Harrison	d) John Douglas	a
9	The world's nation 5G mobile network was launched by which country?				South Korea
	a) Japan	b) Asia	c) South Korea	d) Malaysia	c)
10	What is the name of the first Indian woman who wins the Man Booker Prize?				Arundhati Roy
	a) Salman Rushdie	b) Arundhati Roy	c) V.S. Naipaul	d) Kiran Desai	b)
11	Who has been appointed as Canada's new Liberal Party leader and Prime Minister, replacing Justin Trudeau?				Mark Carney
	a) Mark Carney	b) Chrystia Freeland	c) Karina Gould	d) Frank Baylis	a
12	Which of the three banks will be merged with the other two to create India's third-largest bank?				Indian Bank
	a) Punjab National Bank	b) Indian Bank	c) Bank of Baroda	d) Dena Bank	b
13	Which city is the host of World audio visual & entertainment summit (WAVES) 2025				Chennai
	a) New Delhi	b) Chennai	a) Mumbai.	b) Hyderabad	c
14	Which county won badminton world federation (BWF) Sudirman Cup 2025 ?				China
	a) Japan	b) Vietnam	c) China	d)India	c
15	Who won the 2025 World Food Prize ?				Mariangela Hungria
	a) Shakuntala Haraksingh	b) Surinder Vasal	c) Yuan Longping	d) Mariangela Hungria	d
16	There are deer and peacocks in a zoo. By counting heads they are 80. The number of their legs is 200. How many peacocks are there?				60

	a) 20	b) 30	c) 50	d) 60	d
17	Which one will replace the question mark?  				K_8
	a) L_{10}	b) K_{15}	c) I_{15}	d) K_8	d
18	Today is Monday. After 61 days, it will be:				Saturday
	a)Wednesday	b) Saturday	c) Tuesday	d) Thursday	b
19	A bag contains 2 red, 3 green and 2 blue balls. Two balls are drawn at random. What is the probability that none of the balls drawn is blue?				10/21
	a) 10/21	b) 11/21	c) 2/7	d) 5/7	a
20	Look carefully for the pattern, and then choose which pair of numbers comes next. 28 25 5, 21 18 5, 14				11 5
	a) 11 5	b) 10 7	c) 11 8	d) 5 10	a
21	An incremental model of a solid state device is one which represents the				AC property of the device at desired operating point
	a) AC property of the device at desired operating point	b) DC property of the device at all operating points	c) complete ac and DC behaviour at all operating points	d) AC property of the device at all operating points	a
22	For an n-channel enhancement type MOSFET, if the source is connected at a higher potential than that of the bulk ($V_{SB} > 0$), the threshold voltage V_T of the MOSFET will				remain unchanged
	a)remain unchanged	b) decrease	c)change Polarity	d) increase	a
23	Which of these has 3 layers?				PIN diode
	a) PIN diode	b) Zener diode	c) Schottky diode	d) Photo diode	a
24	At a very low temperature, a semiconductor				becomes an insulator
	a) becomes a conductor	b) becomes an insulator	c) may become a conductor or an insulator	d) will remain a semiconductor becomes a conductor or an insulator	b

25	The colour code on a carbon resistor is red-red-black-silver. The value of resistor is				22 ± 10% Ω
	a) 22000 Ω	b) 2200 Ω	c) 22 ± 5% Ω	d) 22 ± 10% Ω	d
26	Assertion (A): Helium, Argon and Neon are gaseous at room temperature. Reason (R): The atoms in Helium, Argon and Neon are chemically extremely inactive.				Both A and R are true and R is correct explanation of A
	a) Both A and R are true and R is correct explanation of A	b) Both A and R are true but R is not correct explanation of A	c) A is true but R is false	d) A is false but R is true	a
27	Which of the following is correct?				Voltages across a capacitance cannot change instantaneously
	a) Voltages across a capacitance can change instantaneously	b) Voltages across a capacitance cannot change instantaneously	c) Charge across a capacitance is always constant	d) Charge across a capacitance can change instantaneously	b
28	The energy dissipated W in a resistance having voltages v and current i is given by				$W = \int_{-\infty}^{t} vidt$
	a) $W = \int_{-\infty}^{t} vidt$	b) $W = vit^2$	c) $W = \int_{-\infty}^{t} \frac{v}{i}\, dt$	d) $W = \int_{-\infty}^{t} vi^2 dt$	a
29	In figure, the current through 2 Ω resistance is  				zero
	a) zero	b) -2A	c) 2A	d) 1A	a
30	Assertion (A): The number of basic loops is equal to number of links. Reason (R): The graph theory helps in choosing independent variables in circuit analysis. Both A and R are true and R is not the correct explanation of A				Both A and R are true and R is not the correct explanation of a
	a) Both A and R are true and R is correct explanation of	b) Both A and R are true and R is not the correct explanation of	c) A is true but R is false	d) A is false but R is true	b

	A	A			
31	A semiconductor is formed by …… bonds.				Covalent
	a) Covalent	b) Electrovalent	c) Co-ordinate	d) None of the above	a
32	A semiconductor has …… temperature coefficient of resistance				Negative
	a) Positive	b) Zero	c) Negative	d) None of the above	c
33	The most commonly used semiconductor material is ……..				Silicon
	a) Germanium	b) Silicon	c) Carbon	d) Sulphur	b
34	The random motion of holes and free electrons due to thermal agitation is called ……				Diffusion
	a) Diffusion	b) Pressure	c) Ionisation	d) None of the above	a
35	A transistor has ……				two pn junctions
	a) one pn junction	b) two pn junctions	c) three pn junctions	d) four pn junctions	b
36	Match the following: Microwave Measuring Instruments / Measurements Effected A. Bolometer / 1.Reflection coefficients B. VSWR meter / 2.Half power beam widths C. Cavity wave meter / 3.Microwave power D. Pattern recorder / 4.Microwave frequency				A-3, B-1, C-4, D-2
	a) A-2, B-1, C-4, D-3	b) A-3, B-1, C-4, D-2	c) A-2, B-4, C-1, D-3	d) A-3, B-4, C-1, D-2	b
37	The relationship between Y,η& o is_____				Y =2 η(1+o)
	a) Y =2 η(1+o)	b) η = 2Y(1+o)	c) σ =2y/(1+ η)	d) None	a
38	Ultrasonic waves are				Longitudinal
	a) Longitudinal	b) Progressive	c) Transverse	d) Inverse	a
39	Which op-amp circuit uses a resistance in series with input and capacitor in feedback path?				Integrating amplifier
	a) Differentiating amplifier	b) Integrating amplifier	c) Logarithmic amplifier	d) Exponential amplifier	b
40	Which of the following is non-sinusoidal oscillator?				Multivibrator
	a) Multivibrator	b) Relaxation oscillator using UJT	c) Relaxation oscillator using tunnel diode	d) Any of the above	a
41	A dc amplifier can operate				at zero frequency
	a) at zero frequency	b) only at low frequency	c) only at high frequencies	d) both at low and high frequencies	a
42	**Assertion (A):** In a common source amplifier with source terminal at ac ground the voltage gain is about $g_m r_d$				A is correct R is wrong

	Reason (R): A common source amplifier is a source follower circuit				
	a) Both A and R are correct and R is correct explanation for A	b) Both A and R are correct but R is not correct explanation for A	c) A is correct R is wrong	d) A is wrong R is correct	c
43	When a transistor is to be at a temperature above 25°C				maximum power rating be derated
	a) smaller heat sink be provided	b) maximum power rating be derated	c) biasing circuit must be strengthened	d) earth connections must be connected through a resistor	b
44	The most widely used LC oscillator is				Hartley oscillator
	a) Hartley oscillator	b) Crystal oscillator	c) Colpitt's oscillator	d) Clapp's oscillator	a
45	**Assertion (A):** A demultiplexer can be used as a decoder. **Reason (R):** A demultiplexer can be built by using AND gates only.				A is true, R is false
	a) Both A and R are correct and R is correct explanation of A	b) Both A and R are correct but R is not correct explanation of A	c) A is true, R is false	d) A is false, R is true	c
46	Whenever a wave is incident on a perfect conductor then the reflection coefficient is				0
	a) 1	b) 0	c) 1 < 180°	d) depend upon η1, η2	b
47	When a wave is incident from the more dense into a less dense medium at an angle equal to or exceeding the critical angle, the wave suffers total internal _____ .				refraction
	a) reflection	b) refraction	c) transmission	d) none of the above	b
48	Complete the following statement: In a D latch				data bit D is fed to S input and D'to R input
	a) data bit D is fed to S input and D'to R input	b) data bit D is fed to R input and D' to S input	c) data bit D is fed to both R and S inputs	d) data bit D' is not fed to any input	a
49	A 4 input AND gate is equivalent to				4 switches in series
	a) 4 switches in parallel	b) 2 switches in series and 2 in parallel	c) three switches in parallel and one in series	d)4 switches in series	d
50	The gates G_1 and G_2 in the figure have propagation delays of 10 n sec. and 20 n sec. respectively. If the input V_i makes an output change from logic 0 to 1 at time $t = t_0$ then the output wavefrom V_0 is				

					
	a) 	b) 	c) 	d) 	d
51	In a TWT the amplitude of resultant wave travelling down the helix				increases exponentially
	a) increases exponentially	b) increases linearly	c) decreases exponentially	d) is almost constant	a
52	In a directional coupler				isolation (dB) equals coupling plus directivity
	a) isolation (dB) equals coupling plus directivity	b) coupling (dB) equals isolation plus directivity	c) directivity (dB) equals isolation plus coupling	d) isolation (dB) equals (coupling) (directivity)	a
53	As the frequency is increased, the charging MVAR in a cable				increases
	a) decreases	b) increases	c) remain the same	d) decreases or remains the scheme	b
54	For an ideal 3000 Hz channel, S/N ratio is				3
	a) 3	b) 1.5	c) 4	d) 2	a
55	Which of the following types of noise assumes greater importance at high frequencies?				Transit time noise
	a) Transit time noise	b) Shot noise	c) Impulse noise	d) Random noise	a
56	To relay outdoor remotely located live programs, TV transmitter use				microwave links
	a) microwave links	b) coaxial cable link	c) open wire link	d) either (b) or (c)	a
57	The output resistance of a microphone is 20 ohms. It is to feed a line of impedance 320 ohms. To ensure maximum power transfer, the turn ratio of transformer is				4
	a) 16	b) 256	c) 2	d) 4	d
58	The receiver of a pulsed RADAR can detect signal power in the order of				10^{-12} W
	a) 1 W	b) 0.1 W	c) 10^{-5} W	d) 10^{-12} W	d
59	In a 100% amplitude modulated signal, the power in the upper sideband when carrier power is to be 100 W and modulation system SSBSC, is				25W
	a) 100 W	b) 66 W	c) 50W	d) 25W	d
60	The universal gate is ……				NAND gate
	a) NAND gate	b)AND gate	c)E-xor gate	d)OR gate	a

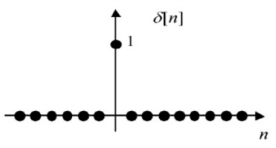
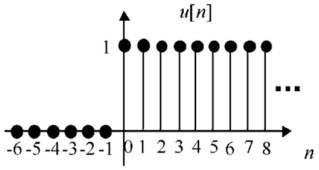
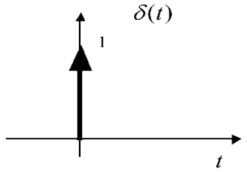
<table>
<tr><td>61</td><td colspan="4">Two equal and opposite charges Q1 = 2 C and Q2 = -2C are placed at a distance of 6m from each other. What is the potential at the midpoint between the two charges?</td><td>0</td></tr>
<tr><td></td><td>a) 2</td><td>b) 0</td><td>c) 1</td><td>d) 3</td><td>b</td></tr>
<tr><td>62</td><td colspan="4">Gauss's Law is applicable only in the case of the electric field. This statement is _____</td><td>False</td></tr>
<tr><td></td><td>a) True</td><td>b) False</td><td>c) Paradox</td><td>d) Can't Say</td><td>b</td></tr>
<tr><td>63</td><td colspan="4">Statement 1: If two sets A and B are equal, then A⊆B and B⊆A
Statement 2: Two sets are equal if and only if every element of A is in B, and every element of B is in A.</td><td>Both are True</td></tr>
<tr><td></td><td>a) 1 is True and 2 is False</td><td>b) 1 is False and 2 is True</td><td>c) Both are False</td><td>d) Both are True</td><td>d</td></tr>
<tr><td>64</td><td colspan="4">Match the following pairs:
<table><tr><td>A. Mass</td><td>1. Joule</td></tr><tr><td>B. Weight</td><td>2. KG</td></tr><tr><td>C. Energy</td><td>3. Watt</td></tr><tr><td>D. Power</td><td>4. Newton</td></tr></table></td><td>A-2, B-4, C-1, D-3</td></tr>
<tr><td></td><td>a)A-2, B-4, C-1, D-3</td><td>b)A-4, B-2, C-1, D-3</td><td>c)A-2, B-4, C-3, D-1</td><td>d)A-4, B-1, C-2, D-3</td><td>a</td></tr>
<tr><td>65</td><td colspan="4">Statement 1: The intersection of two disjoint sets is the empty set.
Statement 2: Disjoint sets have common elements.</td><td>1 is True and 2 is False</td></tr>
<tr><td></td><td>a) 1 is True and 2 is False</td><td>b) 1 is False and 2 is True</td><td>c) Both are False</td><td>d) Both are True</td><td>a</td></tr>
<tr><td>66</td><td colspan="4">Directions: In the following questions, a statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice:

Assertion (A): No two electric lines of force can intersect each other.
Reason (R): Tangent at any point of electric line of force gives the direction of electric field.</td><td>Both (A) and (R) are true and (R) is the correct explanation of (A).</td></tr>
<tr><td></td><td>a) Both (A) and (R) are true and (R) is the correct explanation of (A).</td><td>b) Both (A) and (R) are true but (R) is not the correct explanation of (A).</td><td>c) (A) is true but (R) is false.</td><td>d) Both (A) and (R) are false.</td><td>a</td></tr>
</table>

<table>
<tr><td>67</td><td>Match the following pairs:
<table><tr><td>A. Tunnel Diode</td><td>1.  </td></tr><tr><td>B. Junction Diode</td><td>2.  </td></tr><tr><td>C. Schottky Diode</td><td>3.  </td></tr><tr><td>D. Zener Diode</td><td>4.  </td></tr></table></td><td>A-3, B-1, C-4, D-2</td></tr>
<tr><td></td><td>a) A-2, B-4, C-1, D-3</td><td>b) A-3, B-1, C-4, D-2</td><td>c) A-4, B-1, C-3, D-2</td><td>d) A-3, B-1, C-2, D-4</td><td>b</td></tr>
<tr><td>68</td><td colspan="4">Superconductors have _____</td><td>Almost zero resistivity</td></tr>
<tr><td></td><td>a) Almost zero resistivity</td><td>b) Very high resistivity</td><td>c) Temperature-dependent resistivity</td><td>d) Moderate value of resistivity</td><td>a</td></tr>
<tr><td>69</td><td colspan="4">What is Digital Electronics?</td><td>All of the above</td></tr>
<tr><td></td><td>a) Field of electronics involving the study of digital signal</td><td>b) Engineering of devices that digital signal</td><td>c) Engineering of devices that produce digital signal</td><td>d) All of the above</td><td>d</td></tr>
<tr><td>70</td><td colspan="4">Directions: In the following questions, a statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice as:

Assertion: Electron move away from a region of lower potential to a region of higher potential.

Reason: An electron has a negative charge.</td><td>Both (A) and (R) are true and (R) is the correct explanation of (A).</td></tr>
<tr><td></td><td>a) Both (A) and (R) are true and (R) is the</td><td>b) Both (A) and (R) are true but (R) is not</td><td>c) (A) is true but (R) is false.</td><td>d) Both (A) and (R) are false.</td><td>a</td></tr>
</table>

	correct explanation of (A).	the correct explanation of (A).			
71	Match the following pairs: A. Unit Impulse 1.  B. Discrete-time unit impulse 2.  C. Discrete-time unit step 3. 				A-3, B-1, C-2
	a) A-1, B-3, C-2	b)A-3, B-1, C-2	c)A-1, B-2, C-3	d)A-2, B-1, C-3	b
72	The diode current equation is applicable in _____				It is applicable in all bias states
	a) Forward biased state	b) Reverse biased state	c)Unbiased state	d) It is applicable in all bias states	d
73	Statemet1: A linear programming problem has an optimal solution at a vertex (corner point) of the feasible region. Statement2: The solution of a linear ordinary differential equation (ODE) can be expressed as a linear combination of independent solutions.				1 is True and 2 is False
	a) 1 is True and 2 is False	b) 1 is False and 2 is True	c) Both are False	d) Both are True	a
74	Match the following pairs: A. Homogeneity — 1. $f(x+y)=f(x)+f(y)$ B. Linearity — 2. $f(a\cdot x)=a\cdot f(x)$ C. Additivity — 3. $f(a\cdot x+b\cdot y)=a\cdot f(x)+b\cdot f(y)$				A-2, B-3, C-1
	a) A-2, B-3, C-1	b) A-1, B-2, C-3	c) A-1, B-3, C-2	d) A-1, B-3, C-2	a
75	Find the Eigen values for the following 2×2 matrix.				-3

	$A=\begin{bmatrix}1 & 8\\ 2 & 1\end{bmatrix}$.				
	a) -3	b) 2	c) 6	d) -7	a
76	Find $\partial z/\partial x$ where $z=ax^2+2by^2+2bxy$.				2(ax+by)
	a) 3by	b) 2ax	c) 3(ax+by)	d) 2(ax+by)	d
77	Which of the following graphs represent symmetric about the origin?				$x^5+y^5=5a^2x^2y$
	a) $y^2=4ax$	b) $x^5+y^5=5a^2x^2y$	c)$x^2=4ay$	d)$x^2+y^2=a^2$	b
78	Statemet1: An oscillator is a system that exhibits periodic motion or oscillation over time. Statement2: An oscillator undergoes repetitive fluctuations or cycles due to the interplay of restoring forces and inertia, often governed by differential equations.				Both are True
	a) 1 is True and 2 is False	b) 1 is False and 2 is True	c) Both are False	d) Both are True	d
79	Directions: In the following questions, a statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice as: Assertion: Coulomb force and gravitational force follow the same inverse-square law. Reason: Both laws are same in all aspects.				Assertion (A) is true but Reason (R) is false
	a) Both (A) and (R) are true and (R) is the correct explanation of (A).	b) Both (A) and (R) are true but (R) is not the correct explanation of (A).	c) (A) is true but (R) is false.	d) Both (A) and (R) are false.	c
80	Match the following pairs: A. Symmetric Matrix — i. $A^T=-A$ B. Skew-Symmetric Matrix — ii. $A^TA=AA^T=I$ C. Orthogonal Matrix — iii. $A^T=A$				A-3, B-1, C-2
	a)A-1, B-2, C-3	b)A-3, B-1, C-2	c)A-1, B-3, C-2	d)A-1, B-3, C-2	b
81	Which of the following states that an emf is induced whenever there is a change in the magnetic field linked with electric circuits?				Faraday's Law of Electromagn

					etic Induction
	a)Lenz's Law	b)Ohm's Law	c)Faraday's Law of Electromagnetic Induction	d) None of the above	c)
82	Which of the following statements are true? a. A metal plate can be heated by passing either a direct current or an alternating current through the plate. b. A metal plate can be heated by placing it in a time-invariant magnetic field. c. A metal plate can be heated by placing it in a time-variant magnetic field d. Both (a) and (c)				Both (a) and (c)
	a) only (a)	b) only (b)	c) both (c) and (d)	d)Both (a) and (c)	d)
83	The concept of displacement current was introduced by _____.				Max well
	a) Newton	b) Ampere	c) Maxwell	d) Fleming	c)
84	Which of the following light phenomena confirms the transverse nature of light?				Polarization of light
	a) Refraction of light	b) Diffraction of light	c)Dispersion of light	d) Polarization of light	d)
85	Two light sources are said to be coherent when both the sources of light emit light of				The same wavelength and constant phase difference
	a) The same amplitude and phase	b) The same intensity and wavelength	c) The same speed	d) The same wavelength and constant phase difference	d)
86	A spring-mass system with a spring constant of 120 N/m and a damping coefficient of 40 N·s/m is pulled along the x-axis by 0.5 m and released. Match the statements in Column-1 with their correct descriptions in Column-2. Column-1 | Column-2 1) Type of damping observed | a) Critically damped 2)General form of the | b) $y(t) = 0.25(1 + 2t)e^{-t}$				1 – a, 2 – b, 3 – d, 4 – c

	trajectory equation				
	3) Motion behavior	c) Does not oscillate but returns to equilibrium quickly			
	4)Effect of damping coefficient on motion	d) Reduces oscillations and brings mass to rest			
	a) 1 – a, 2 – b, 3 – d, 4 – c	b) 1 – b, 2 – a, 3 – c, 4 – d	c) 1 – a, 2 – c, 3 – d, 4 – b	d) 1 – d, 2 – b, 3 – a, 4 – c	a)
87	A 220 V, 100 W bulb is connected to a 110 V source. Calculate the power consumed by the bulb.				25 W
	a) 10 W	b) 15 W	c) 20 W	d) 25 W	d)
88	When a bus starts suddenly, the passengers are pushed back. This is an example of which of the following?				Newton's first law
	a) Newton's first law	b) Newton's second law	c) Newton's third law	d) None of Newton's laws	a)
89	**Assertion (A):** An iron ball floats on mercury but sinks in water. **Reason (R):** The specific gravity of iron is more than that of mercury.				(A) is true but (R) is false
	a) Both (A) and (R) are true and (R) is the correct explanation of (A).	b) Both (A) and (R) are true but (R) is NOT the correct explanation of (A).	c) (A) is true but (R) is false.	d) (A) is false but (R) is true.	c)
90	**Assertion (A):** When common salt is kept open, it absorbs moisture from the air. **Reason (R):** Common salt contains magnesium chloride.				Both (A) and (R) are true and (R) is the correct explanation of (A)
	a) Both (A) and (R) are true and (R) is the correct explanation of (A).	b) Both (A) and (R) are true but (R) is NOT the correct explanation of (A).	c) (A) is true but (R) is false.	d) (A) is false but (R) is true.	a)
91	**Assertion (A):** COVID-19 is caused by a virus. Antibiotics do not work against viruses. **Reason (R):** The bacteria of COVID-19 is very infective.				A) is false but (R) is true.
	a) Both (A) and (R) are true and (R) is the correct explanation of (A).	b) Both (A) and (R) are true but (R) is NOT the correct explanation of (A).	c) (A) is true but (R) is false.	d) (A) is false but (R) is true.	d)
92	Parameters for RLC circuits are R= 2 Ω, L= 1 H and C= 1 F. If these are connected in parallel. The system response will be:-				Underdamped

	a) Critically damped	b) Overdamped	c) Undamped	d) Underdamped	d)
93	The function $f(x) = x^3 - 6x^2 + 9x + 25$				maxima at x = 1 and a minima at x = 3
	a) maxima at x = 1 and a minima at x = 3	b) a maxima at x = 3 and a minima at x = 1	c) no maxima, but a minima at x = 1	d) a maxima at x = 1,but no minima	a)
94	A reverse bias pn junction has _____				Almost no current
	a) Very narrow depletion layer	b) Almost no current	c) Very low resistance	d) Large current flow	b)
95	If the flux density in a certain magnetic material is 0.25 T and the area of the material is 25 mm^2. The magnetic flux through material is: -				6.25 μWb
	a) 6.25 μWb	b) 2.5 μWb	c) 0.5 μWb	d) 25 μWb	a)
96	What kind of photon is required for the pair production phenomenon to occur?				X-ray Photon
	a)Visible Light Photon	b)X-ray Photon	c)γ-ray Photon	d)UV Photon	b)
97	A 3.0 MeV photon interacts with a lead nucleus in empty space. What would be the Kinetic Energy of the electron and positron pair?				Electron-Positron pair won't be created
	a)2.01 MeV	b) 1.5 MeV	c)1.45 MeV	d) Electron-Positron pair won't be created	d)
98	What will be the rest energy of an electron?				0.51 MeV
	a)0.41 MeV	b) 0.51 MeV	c)0.61 MeV	d) 0.71 MeV	b)
99	**If there is an error of 2% in measuring the length of a simple pendulum, then percentage error in its period is**				1%
	a) 1%	b) 2%	c) 3%	d) 4%	a)
100	**The absolute maximum value of $y = x^3 - 3x + 2$ in $0 \leq x \leq 2$ is**				4
	a) 0	b) 2	c) 4	d) 6	c)