

Model Test – V

QUESTION SHEET

GENERAL INSTRUCTION

1. Write your information (Name, Roll. Number, Date etc.) on your Answer Sheet.
2. Do not write anything on your Question Sheet
3. Use given extra loose sheet for rough work.
4. Mark your correct answers by blackening the appropriate bubble against each question on your Answer Sheet.
5. No negative marks will be given for wrong answers.
6. All pages (Question, Answer Sheet) must be submitted after the examination.
7. Duration of Examination is 2 hours.

Read the passage and answer the questions (1-4) below.

Jacob Epstein's sculptures were the focus of much controversy during the sculpture's lifetime Epstein was born in the United States of Russian Jewish immigrants in 1880. He moved to Paris in his youth and later to England where he eventually settled and took British citizenship in 1907. His first mayor commission on a building in London offended public taste, because of the expensive distortion of the figures. In 1937, the Rhodesian government, which at that time owned the building, actually mutilated the sculptures. Many other of Epstein's monumental carvings received equally adverse criticism. While the general public denounced his work, many artists and critics praised it. They particularly admired the adversity of his work and noted the influence of primitive and ancient sculptural motifs from Africa and the Pacific. Today, Epstein is considered one of the major sculptures of the 20th century.

Questions:

1. What does the passage mainly discuss?
 - a) The controversies aroused by Epstein's work
 - b) The adverse criticism of Epstein's work
 - c) The recognition of Epstein's as a major century sculpture
 - d) The influence of Primitive and ancient motifs seen in Epstein's sculpture
2. The author states that some people didn't like some of the Epstein's sculptures because they found them
 - a) Badly made
 - b) Mutilated
 - c) Offensive
 - d) Ancient
3. Which of the following was most probably an important influence on Epstein's work?
 - a) Russian paintings
 - b) Public taste
 - c) Rhodesian government
 - d) African paintings
4. Which of the following could not be said about Epstein's work?
 - a) It has been almost forgotten
 - b) It was admired by some critics
 - c) It was not appreciated by much of the public
 - d) It was influenced by motifs from Africa and the Pacific
5. Would it be alright if I on the television?
 - a) turn
 - b) turned
 - c) turning
 - d) turns
6. Would you mindin the room?
 - a) not to smoke
 - b) not to smoking
 - c) not smoking
 - d) not smoked
7. Dr. Jones objected..... patients calling at night
 - a) to
 - b) for
 - c) in
 - d) at
8. After mother..... dinner, she went out
 - a) cooked
 - b) has cooked
 - c) was cooking
 - d) had cooked
9. The better the camera, the picture quality.
 - a) the better
 - b) better
 - c) the best
 - d) in better
10. He sold me five..... and now he has two.....
 - a) deers, deer
 - b) deer, deers
 - c) deers, deers
 - d) deer, deer

11. Who.....that he has already completed the work?
 a) said b) is saying c) told d) says
12. Weby a loud noise during the night
 a) woke up b) are woken up c) were woken up d) is woken up
13. He suggested that I money in the bank
 a) should deposit b) depositing c) deposited d) deposits
14. An institution for reforming young offenders.....
 a) hospital b) reformatory c) asylum d) barracks
15. One who studies things of the past
 a) historian b) demographer c) antiquarian d) archaeologist
16. When Sila is on duty she has to put on her uniform.....?
 a) isn't she b) doesn't she c) hasn't she d) has she
17. 'To bear with' means.....
 a) to support b) have patience with c) to give company d) to confirm
18. If only I to the party last night
 a) went b) had gone c) go d) had been gone
19. the coffee made?
 a) Are/having b) Is/having c) Are/being d) Is/being
20. John asked me if hebring his children
 a) can b) may c) would d) could
21. What is the chemical formula of aqua fortis?
 a) AgCl b) AgNO₃ c) NaNO₃ d) HNO₃
22. Which of the following is the common name for FeSO₄.7H₂O?
 a) Blue vitriol b) white vitriol c) Green vitriol d) oil of vitriol
23. What is the maximum number of electrons that can occupy the third energy level (n = 3) of an atom?
 a) 2 b) 8 c) 18 d) 32
24. Which of the following is the precipitation reaction?
 a) H₂ + O₂ → H₂O b) AgNO₃+ NaCl → AgCl + NaNO₃
 c) Zn + H₂SO₄ → ZnSO₄ + H₂ d) CaCO₃ → CaO + CO₂
25. Formula of *potassium ferrocyanide* is
 a) K₄[Fe(CN)₆] b) K₃[Fe(CN)₆] c) KCNS d) KCN
26. Which of the following is the average atomic mass of Silver?
 a) 63.5 amu b) 54.9 amu c) 65.4 amu d) 107.8 amu
27. Which of the following is the correct electronic configuration of Chromium (Cr)?
 a) 1s²,2s²,2p⁶,3s²,3p⁶,3d⁵,4s¹ b) 1s²,2s²,2p⁶,3s²,3p⁶,3d³,4s³
 c) 1s²,2s²,2p⁶,3s²,3p⁶,3d⁴,4s² d) 1s²,2s²,2p⁶,3s²,3p⁵,3d⁶,4s¹
28. Sodium chloride molecule is
 a) Polar covalent b) ionic c) Covalent d) water insoluble
29. Which of the following molecules has two lone pairs?
 a) BF₃ b) NH₃ c) AlCl₃ d) H₂O
30. Absolute Zero temperature is
 a) -273 K b) -273°C c) 273 K d) 273°C
31. The Neutron was first discovered by
 a) J.J. Thomson b) Chadwick c) Goldstein d) None of all
32. The functional group amide is
 a) -NH₂ b) -CONH₂ c) -CHO d) -COR
33. Isotopes of the same elements arise due to
 a) Same no. of neutron b) Same no. of electrons
 c) Different no. neutron d) Different No. of electron
34. The statement "At constant temperature, the volume of given mass of gas is inversely proportional to its pressure" is
 a) Boyle's law b) Charles' law c) Dalton's law d) Avogadro's law
35. Benene is an example of
 a) Aromatic compound b) Alkane c) Cycloalkane d) Aliphatic compound

36. Which one of the following parts of the eye is responsible for image formation?
 a) Lens b) Retina c) Cornea d) Iris
37. The chlorophyll in photosynthesis is used for...
 a) Absorbing light b) Breaking down water molecule
 c) No function d) Reduction of CO₂
38. Bile juice is secreted by...
 a) Stomach b) Liver c) Small intestine d) Pancreas
39. The small pores present of leaf's surface are called...
 a) Stomata b) Chlorophyll c) Guard cells d) None of these
40. Which of the following blood vessels has the thickest wall?
 a) Veins b) Capillaries c) Arteries d) Both a and b
41. Proteins after digestion are converted into...
 a) Fatty acids b) Glycerol c) Starch d) Amino acids
42. Homologous organs have...
 a) Same structure, same function b) Different structure, different function
 c) Same structure, different function d) Different structure, same function
43. Which element is used in the synthesis of proteins?
 a) Hydrogen b) Oxygen c) Nitrogen d) Carbon dioxide
44. Use of living organisms or their products for the welfare of mankind is termed as...
 a) Human Biology b) Biotechnology c) Genetic Engineering d) Exobiology
45. *Spirogyra* is commonly called...
 a) Water lily b) Water Hyacinth c) Water fungi d) Water silk
46. Chemical that is used in to prevent animal specimen from decaying is known as...
 a) Carboxylic acid b) Formalin c) Gibberellins d) Acetic acid
47. Thread-like structures found at the bottom of the Mushroom is known as...
 a) Hyphae b) Gills c) Spores d) Annulus
48. What is the scientific name of Rabbit?
 a) *Funambulus* b) *Rhinolphus* c) *Oryctolagus* d) *Scoliodon*
49. The scientific name of Mushroom is...
 a) *Asparagus* b) *Agaricus* c) *Acanthocilus* d) *Magnifera*
50. Defect of vision in which person sees nearer objects clearly but cannot see distant object is known as...
 a) Hypermetropia b) Far-sightedness c) Long-sightedness d) Myopia
51. What is the dimensional formula of Power?
 a) [ML²T⁻³] b) [ML²T⁻²] c) [ML²T²I] d) None of the above
52. Which of the following is a dimensionless quantity?
 a) Acceleration b) Refractive index c) Force d) Pressure
53. Which of the following is the correct conversion factor from atm to Pascal (Pa)?
 a) 1 atm = 101.3 Pa b) 1 atm = 1.013 × 10⁵ Pa c) 1 atm = 1000 Pa d) 1 atm = 760 Pa
54. Which of the following pairs have the same dimensions?
 a) Work and Power b) Torque and Work c) Momentum and Force d) Pressure and Energy
55. If the velocity v=at², what are the dimensions of the constant a?
 a) [LT⁻²] b) [LT⁻³] c) [LT⁻¹] d) [L²T⁻²]
56. Which one of the following is not a correct dimensional formula?
 a) Speed: [LT⁻¹] b) Force: [MLT⁻²] c) Energy: [ML²T⁻²] d) Power: [MT²L⁻²]
57. Inertia is the property of a body linked to tendency of a body
 a) to change its position b) to change its direction
 c) to change the momentum d) to resist any change in its state
58. A car accelerates uniformly from 36 km/h to 72 km/h in 5 sec. Calculate the acceleration of the car
 a) 2 ms⁻² b) 4 ms⁻² c) 5 ms² d) 1 ms²
59. If the distance between two-point masses is doubled, the gravitational attraction between them
 a) is doubled b) becomes four times
 c) is reduced half d) is reduced to a quarter
60. If a graph of position vs. time is a straight line with a positive slope, what can be concluded?
 a) The object is at rest b) The object has uniform velocity
 c) The object is accelerating d) The object is moving in a circle

61. Temperature is a measure of:
- a) Total energy of the particles
 b) Potential energy of particles
 c) Average kinetic energy of particles
 d) Number of particles in a body
62. A piece of metal absorbs 500 J of heat, and its temperature rises by 20°C . If its mass is 1 kg, what is its specific heat capacity?
- a) $10\text{ J/kg}^{\circ}\text{C}$
 b) $20\text{ J/kg}^{\circ}\text{C}$
 c) $25\text{ J/kg}^{\circ}\text{C}$
 d) $30\text{ J/kg}^{\circ}\text{C}$
63. When a substance changes its phase (e.g., ice to water), what happens to its temperature?
- a) Increases
 b) Decreases
 c) Remains constant
 d) Becomes zero
64. If the angle of incidence becomes larger than critical angle, then phenomenon of:
- a) Reflection occurs
 b) Refraction occurs
 c) Total internal reflection occurs
 d) Reflection and refraction occur simultaneously
65. What will be the value of equivalent resistance when the resistors of 3 ohm and 6 ohms are in series
- a) 9Ω
 b) 6Ω
 c) 2Ω
 d) 3Ω
66. The derivative of $\sin x$ is
- a) $\sin x$
 b) $-\sin x$
 c) $-\cos x$
 d) $\cos x$
67. The term derivative is associated with
- a) volume
 b) area
 c) perimeter
 d) slope
68. The perimeter of a rectangle whose three vertices are at the points $A(0,4)$, $B(0,0)$ and $C(3,0)$ is
- a) 7
 b) 11
 c) 12
 d) 14
69. The value of $\lim_{x \rightarrow 2} \frac{x^2-4}{x-2}$ is
- a) 4
 b) 3
 c) 2
 d) 1
70. The derivative of x^3 with respect to x is
- a) x
 b) $3x$
 c) $3x^2$
 d) $3x^3$
71. If $f(x) = x^2 + 6x$ then $f(0)$ is
- a) 0
 b) 3
 c) 6
 d) 9
72. The value of $\lim_{x \rightarrow \theta} \frac{\tan \theta}{\theta}$ is
- a) 0
 b) 1
 c) 2
 d) 3
73. The value of $\lim_{x \rightarrow y} \frac{\cos x - \cos y}{x - y}$ is
- a) $\cos x$
 b) $\sin x$
 c) $-\sin y$
 d) $\cos y$
74. The solution set of the inequality $|x + 1| < 3$ is
- a) $[-4, 2]$
 b) $(-4, 2)$
 c) $\{0, 1, 2, 3\}$
 d) $\{-4, -3, -2, -1\}$
75. If $A = [0, 1]$ and $B = [1, 2]$ then $A \cap B$ is equal to
- a) $\{\}$
 b) $\{1\}$
 c) $(0, 3)$
 d) $[0, 3]$
76. What is the cost of carpeting a room 13m by 9m with a carpet of width 75cm at the rate of Rs 105 per meter?
- a) Rs 16380
 b) Rs 10080
 c) Rs 14580
 d) Rs 10000
77. Six bells ring together and ring again at the intervals of 2, 4, 6, 8, 10, 12 seconds respectively. In 30 minutes how many times do they ring together?
- a) 4
 b) 10
 c) 15
 d) 16
78. The greatest number of four digits which is divisible by 15, 25, 40 and 75 respectively is
- a) 9000
 b) 9400
 c) 9600
 d) 9800
79. The value of $\operatorname{cosec}(75^{\circ} + \theta) - \sec(15^{\circ} - \theta) - \tan(55^{\circ} + \theta) + \cot(35^{\circ} + \theta)$ is
- a) -1
 b) 0
 c) 1
 d) $\frac{3}{2}$
80. If $\cos(A + B) = 0$ then $\sin(A - B)$ is equal to
- a) $\cos B$
 b) $\sin A$
 c) $\cos 2A$
 d) $\cos 2B$
81. The value of $\sin^6 A + \cos^6 A + 3 \sin^2 A \cos^2 A$ is
- a) 1
 b) 2
 c) 3
 d) 4
82. Which of the following is the singular matrix?
- a) $\begin{pmatrix} 4 & 6 \\ 3 & 2 \end{pmatrix}$
 b) $\begin{pmatrix} 4 & 6 \\ 2 & 3 \end{pmatrix}$
 c) $\begin{pmatrix} 4 & 3 \\ 6 & 2 \end{pmatrix}$
 d) $\begin{pmatrix} 2 & 3 \\ 6 & 4 \end{pmatrix}$
83. If $n(A) = 15$, $n(B) = 20$ and $n(A \cap B) = 5$ then $n(A \Delta B)$ is
- a) 15
 b) 20
 c) 25
 d) 35

84. Two numbers are in the ratio 4: 5 and their LCM is 180. The smaller number is
 a) 9 b) 15 c) 36 d) 45
85. What is the probability that a child born on Sunday is a boy?
 a) $\frac{1}{14}$ b) $\frac{1}{7}$ c) $\frac{1}{2}$ d) $\frac{1}{3}$
86. What is the full form of cc in email?
 a) Continuous copy b) Carbon copy c) Control copy d) Character copy
87. What is the purpose of the operating system?
 a) To manage hardware resources b) To store and retrieve data
 c) To create web pages d) To perform calculations
88. Which of the following is an input device?
 a) Printer b) Scanner c) Monitor d) Speaker
89. Which of the following is an example of secondary storage?
 a) RAM b) Hard disk drive c) Cache memory d) CPU
90. What is the function of an input device?
 a) To send data to the computer b) To process data
 c) To store data d) To display data
91. Which type of software allows users to browse the World Wide Web?
 a) Web browser b) Word processor
 c) Spreadsheet software d) Presentation software
92. Which of the following is an example of a file extension?
 a) .docx b) Keyboard c) Printer d) Monitor
93. What is the purpose of a mouse in a computer system?
 a) To display output on the screen b) To enter data into the computer
 c) To control the movement of the cursor d) To store files and folders
94. What is the binary representation of decimal number 7?
 a) 111 b) 110 c) 1110 d) 100
95. What is the purpose of an output device?
 a) To process data b) To store data
 c) To display or produce results from the computer d) To enter data into the computer
96. Which of the following is an example of a file format used for storing images?
 a) MP3 b) PDF c) JPEG d) TXT
97. Which social media platform is primarily used for professional networking?
 a) Facebook b) Twitter c) Instagram d) LinkedIn
98. What is the purpose of two-factor authentication (2FA)?
 a) Encrypting sensitive data b) Identifying vulnerabilities in software
 c) Verifying user identity through multiple factors d) Preventing D-DoS attacks
99. What is the full form of ICT?
 a) Information and Computer Technology
 b) Information and Communication Technology
 c) Integrated Circuit Technology
 d) International Conference on Technology
100. Which of the following is the best practice for cybersecurity?
 a) Sharing passwords with trusted friends
 b) Clicking on unknown email attachments
 c) Regularly updating software and operating systems
 d) Using the same password for multiple accounts

- The End -

Answer Key

QN	ANS	QN	ANS	QN	ANS	QN	ANS
1	A	26	D	51	A	76	A
2	C	27	A	52	B	77	D
3	D	28	B	53	B	78	C
4	A	29	D	54	B	79	B
5	B	30	B	55	B	80	D
6	C	31	B	56	D	81	A
7	A	32	B	57	D	82	B
8	D	33	C	58	A	83	C
9	A	34	A	59	D	84	C
10	D	35	A	60	B	85	A
11	A	36	B	61	C	86	C
12	C	37	A	62	C	87	A
13	A	38	B	63	C	88	B
14	B	39	A	64	C	89	B
15	D	40	C	65	A	90	A
16	B	41	D	66	D	91	A
17	B	42	C	67	D	92	A
18	B	43	C	68	D	93	C
19	D	44	B	69	A	94	A
20	D	45	D	70	C	95	C
21	D	46	C	71	A	96	C
22	C	47	A	72	B	97	D
23	C	48	C	73	C	98	C
24	B	49	B	74	B	99	B
25	A	50	D	75	B	100	C