

Model Question

Entrance Examination

Name: _____

- What is the life span of an adult 'Bombyx mori' ?
a) 2 days b) 3-6 days c) 6 days d) 8 days
- Which of the following is formed when carbon dioxide gas is bubbled into lime water?
a) $\text{Ca}(\text{HCO}_3)_2$ b) H_2CO_3 c) CaSO_4 d) CaCO_3
- It is very cold today and
a) it's snowing b) it snows c) its snowing d) it snowing
- If $n(U) = 150$, $n(A) = 60$, $n(B) = 80$ and $n(A \cup B) = 110$ then $n_O(A)$ is
a) 30 b) 40 c) 50 d) 70
- The unit of Universal gravitational constant is
a) $\text{Nm}^{-2}\text{Kg}^{-2}$ b) $\text{Nm}^2\text{Kg}^{-2}$ c) $\text{Nm}^{-2}\text{S}^{-2}$ d) $\text{Kgm}^2\text{S}^{-2}$
- The honey bee is of greatest use to mankind as:
a) It is of medicinal benefits c) Helps in cross-pollination
b) We get honey from them d) scientific study
- Word "Prop" represents
a) primary suffix b) secondary suffix c) word root d) prefix
- In ΔABC , $AB = 14$ cm, $BC = 15$ cm and $CA = 13$ cm then area of ΔABC is
a) 21 cm^2 b) 42 cm^2 c) 63 cm^2 d) 84 cm^2
- Which one of the following is vector quantity?
a) Mass b) Energy c) Force d) Density
- Nissle's granules are found in
a) Erythrocytes b) Leucocytes c) Neuron d) Nephrocyte
- According to Lewis concept " BF_3 " is
a) acid b) base c) salt d) indicator
- I cannot see you tomorrow.lunch with Mohan.
a) I'm having b) I'll have c) I'm going have d) I'll to have
- The diameter of the circular base of a solid cylindrical rod is 2.8 cm and it is 50 cm long. what is the volume of it?
a) 240 b) 308 c) 400 d) 500
- When a loaded boat enters into the sea from a river, it rises because
a) There is more water in the sea than the river c) Sea water is denser than the river
b) There is difference of temperature d) Sea is deeper than river

15. Ammonia gas can be collected in the gas jar by
- a) upward displacement of air
 - b) upward displacement of water
 - c) downward displacement of air
 - d) downward displacement of water.

16. This amongst the following is a wrong match

Option		
A	Columnae cornae	Auricle of heart
B	Endocrine part of brain	Hypothalamus
C	Bone marrow	hematopoietic organ
D	Corpus callosum	brain

17. They bought

- a) in the country a big old house
- b) an old big house in the country
- c) a big old house in the country
- d) in the country an old big house

18. If $\sqrt{x+4} = x - 2$ then value's of x be

- a) 0
- b) 5
- c) 0 and 5
- d) 1

19. Which of the following statement is correct?

- a) Acceleration due to gravity increases with increase in depth
- b) Acceleration due to gravity increase with increase in altitude
- c) Acceleration due to gravity is maximum at the centre of earth
- d) Acceleration due to gravity vanishes at the centre of earth

20. Glucagon

- a) accelerates protein synthesis within cells
- b) accelerates conversion of glycogen into glucose
- c) decreases conversion of glycogen into glucose
- d) slows down glucose formation from lactic acid

21. What type of reaction takes when electricity is passed through water?

- a) Displacement
- b) Decomposition
- c) Combination
- d) Double displacement

22. If you have stomach pain, youto go to the doctor.

- a) had better
- b) should
- c) ought
- d) must

23. The product of two consecutive even numbers is 168. What are the numbers?

- a) 12 and 14
- b) 10 and 12
- c) 8 and 10
- d) 14 and 16

24. A 5 Kg monkey swings from one branch to another branch 2 m higher. What is the change in its potential energy? Assume acceleration due to gravity to be 10 m/s².

- a) 50 J
- b) 75 J
- c) 100 J
- d) 25 J

25. Which of the following statements hold true for fossilization?

- a) Only small animals are more likely to become fossils
- b) Fossilization is more likely to occur on mountains rather than forests
- c) Every organism that dies becomes a fossil.
- d) It is the process of formation of fossils.

26. An example of oxide ore is
 a) Bauxite b) Cinnabar c) Calamine d) Galena
27. What is her job? - She'slecturer.
 a) an university b) a university c) one university d) university
28. A woman is 1.6 m tall and the length of her shadow in the sun is $1.6\sqrt{3}$ m. What is the altitude of the sun?
 a) 15° b) 30° c) 45° d) 60°
29. An object with a constant speed
 a) Is not accelerated c) Is always accelerated
 b) Might be accelerated d) Also has a constant velocity
30. Which of the following is called the secondary air pollutant?
 a) PANs b) Ozone c) Carbon monoxide d) Nitrogen Dioxide
31. The molecular formula of green vitriol is
 a) $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ b) $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ c) $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$ d) $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$
32. I don't knownear here to have lunch.
 a) anything b) something c) anywhere d) something
33. A force of 12 N gives an object an acceleration of m/s^2 . The force required to give it an acceleration of 10 m/s^2 is
 a) 15 N b) 20 N c) 25 N d) 30 N
34. 8. Which of the following isn't a waterborne disease?
 a) Typhoid b) Cholera c) Hepatitis d) Filariasis
35. Weight of 224 cc of CO_2 at NTP is
 a) 440 grams b) 44 grams c) 4.4 grams d) 0.44 grams
36. Jane drives carefully but her sister drives
 a) fastly b) very fast c) more quick d) very quick
37. Two cards are drawn one after another with replacement from a well shuffled pack of 52 cards. What is the probability that both cards are king?
 a) $\frac{1}{13}$ b) $\frac{1}{169}$ c) $\frac{1}{26}$ d) $\frac{2}{13}$
38. The operating principle of a hydraulic press is
 a) Pascal's principle c) Newton's law of gravitation
 b) Archimedes' principle d) Boyle's law
39. Which of the following is heterocrine gland?
 a) Thyroid b) Adrenal c) Pancreas d) Pituitary gland

40. Which one of these is basic?
 a) CO_2 b) SiO_2 c) Na_2O d) SO_2
41. It happenedFriday.
 a) at lunch-time in b) at lunch-time on c) in lunch-time on d) on lunch-time at
42. In a series, $\sum fm = 72 + 8k$, $\bar{X} = 6$ and $\sum f = 16 + k$ then the value of k is
 a) 10 b) 12 c) 14 d) 16
43. If A and B are two independent events such that $P(A) = 0.8$, $P(B) = 0.2$ then $P(A \cup B)$ is
 a) 0.16 b) 1 c) 0 d) 0.84
44. A person cannot see clearly beyond 50 cm. The power of the lens required to correct his vision is
 a) - 0.5 D b) + 0.5 D c) - 2 D d) + 2 D
45. Which is largest part of human brain?
 a) Medulla oblongata b) Pons varolii c) Cerebrum d) cerebellum
46. "Bell metal" is an alloy of
 a) Cu + Zn b) Cu + Sn c) Sn + Pb d) Bi + Sn
47. There was no truth to his story. He simply
 a) made it up b) made up it c) drew it out d) drew out it
48. If two events A and B are mutually exclusive then $P(A \cap B)$ is
 a) 0 b) 1 c) Not defined d) 0.5
49. An object is placed 10 cm in front of a diverging lens of focal length 20 cm. The image will be
 a) Real, inverted, large c) Real, erect, diminished
 b) Virtual, inverted, large d) Virtual, erect, diminished
50. The number of chromosomes in human ovum is
 a) 20 b) 21 c) 22 d) 23
51. Which one of these represents saturated hydrocarbon?
 a) C_4H_8 b) C_6H_{10} c) C_5H_{12} d) C_7H_{12}
52. The active form of "Was it made by Shyam?" is:.....
 a) Was Shyam made it? c) Did Shyam make it?
 b) Did Shyam made it? d) Does Shyam make it?
53. In a group of 240 game lovers, 135 like cricket and 120 like football. How many people like only cricket?
 a) 15 b) 120 c) 105 d) 135
54. At what temperature, reading on Celsius and Fahrenheit scales coincides?
 a) 40° b) -40° c) 100° d) 58°

55. Which of the following is a chromosomal disorder?
 a) Down's syndrome b) AIDS c) Cholera d) Maramus
56. The elements with atomic numbers 35, 53 & 85 are
 a) noble gases b) halogens c) heavy metals d) alkali metals
57. The film was very sad. Itcry.
 a) made us to b) made us c) let us d) let us to
58. If a cost of an article with VAT is Rs 4,746 and without VAT is Rs 4,200. What is the VAT rate?
 a) 13% b) 14% c) 15% d) 16%
59. The upper fixed point and lower fixed point of a faulty thermometer are 110°C and -5°C respectively. If this thermometer is used to measure the temperature of a liquid of whose actual temperature is 50°C , reading on the thermometer will be
 a) 62.5°C b) 57.5°C c) 52.5°C d) 42.5°C
60. Which of the following is a metacentric chromosome?
 a) Centromere is found at the exact centre of chromosome.
 b) Centromere is found near centre.
 c) Centromere lies in sub-terminal position.
 d) Centromere is found in terminal position.
61. Number of elements in the fifth period of periodic table is
 a) 8 b) 10 c) 18 d) 32
62. I wishthe birthday party last night.
 a) went b) had gone c) was going d) have gone
63. If MP = Rs 1,500, SP = Rs 1,275 then discount percent is
 a) 5% b) 10% c) 15% d) 20%
64. The amount of heat lost or gained by a body does not depends on
 a) Mass of the body c) Specific heat capacity of the body
 b) Change in temperature d) Acceleration due to gravity
65. The method of asexual reproduction which takes place by the formation of bud is called
 a) Fission b) Budding c) Sporulation d) Fragmentation
66. Hydrogen chloride molecule contains
 a) Covalent bond b) Hydrogen bond c) Co- ordinate bond d) Electrovalent bond
67. Do you know where
 a) lives Geeta b) do Geeta lives c) does Geeta live d) Geeta lives
68. At what rate percent per annum compound interest will Rs 2,500 amounts to Rs 2,704 in 2years?
 a) 1% b) 2% c) 3% d) 4%

69. 1 Joule of heat is equal to
 a) 0.238 Calorie b) 0.418 Calorie c) 0.5 Calorie d) 4.18 Calorie
70. Name the part of a pistil or carpel that changes to fruit is
 a) Stigma b) Style c) Ovary d) Ovule
71. The electronic configuration $1s^2, 2s^2, 2p^6, 3s^2, 3p^6, 4s^2, 3d^6$ represents
 a) Cr b) Mn c) Fe d) Co
72. Most people go by train. The bus,.....,is cheaper and faster.
 a) although b) despite c) while d) however
73. A bought a new scooter for Rs 2,10,000. After 2 years he sold it to B at 10% per year depreciation. How much did B pay for the scooter?
 a) Rs 1,70,100 b) Rs 1,80,200 c) Rs 1,90,300 d) Rs 1,90,000
74. A dynamo converts
 a) Mechanical energy into electrical energy c) Electrical energy into mechanical energy
 b) Magnetic energy into mechanical energy d) Magnetic energy into electrical energy
75. Callus is formed during
 a) Layering b) Grafting c) Cutting d) Tissue culture
76. Urea is obtained by the reaction of
 a) CO_2 and NO_2 b) CH_3 and NO_2 c) CO and NH_3 d) CO_2 and NH_3
77. A suitable tag question of “ I firmly believe that children ought to be given ample time for playing ,.....?” is:..... ?
 a) oughtn't they b) don't I c) should they d) ought they
78. The area of an equilateral triangle is
 a) $\sqrt{3} a^2$ b) $\frac{\sqrt{3}}{2} a^2$ c) $\frac{\sqrt{3}}{4} a^2$ d) $\frac{3}{4} a^2$
79. In a transformer, the primary coil is connected to
 a) Alternating current (AC) source c) Direct current (DC) source
 b) Resistance d) Inductor
80. Mendel performed the hybridization experiment in
 a) Pea plant b) Gram plant c) Rose plant d) Bean plant
81. “Polystyrene” is an example of
 a) Thermoplastic b) Thermosetting plastic c) Natural polymer d. Condensation polymer
82. The volume of triangular prism is
 a) Base area (A) \times Height (H) c) Perimeter of base (P) \times Height (H)
 b) $P \times l + 2\Delta$ d) $P \times L$

83. What is the electrical energy consumed by 5 tube lights of 40 W each when they are used for 40 hours.
 a) 6 kWh b) 8 kWh c) 10 kWh d) 12 kWh
84. The two-alternative form of a gene is called
 a) Factor b) Allele c) Chromatid d) Centromere
85. An element X has an atomic mass 19 and atomic number 9. Its ion is represented by
 a) M^+ b) M^{2+} c) M^- d) M^{2-}
86. Eating 5 servings of fruits and vegetables dailysaid to provide all the essential vitamins we require.
 a) is b) are c) was d) has been
87. The volume of cone is 1848 cm^3 and radius of Its base is 14 cm then height of cone is
 a) 4 cm b) 5 cm c) 9 cm d) 14 cm
88. A fuse wire repeatedly gets burnt when used with a good heater. It is advised to use a fuse wire of
 a) More length b) Less radius c) Less length d) More radius
89. The phenotypic ratio of F2 individuals in Mendel's monohybrid cross is
 a) 2:2 b) 1:2:1 c) 3:1 d) 1:3
90. An element has atomic number 18. The number of "Neutrons" in its atom is
 a) 18 b) 19 c) 21 d) 22
91. "What shall I eat, mother?" he said. He asked his mother what
 a) he shall eat b) he would eat c) he should eat d) I will eat
92. The average of six numbers is 16. If five of the number are 15, 37, 16, 9 and 23. What is sixth number?
 a) -20 b) -4 c) 0 d) 6
93. Evolution of life on land occurred in
 a) Precambrian era b) Palaeozoic era c) Mesozoic era d) Cenozoic era
94. A sudden heritable change in the structure of genes and chromosomes is
 a) Mutation b) Heredity c) Inheritance d) Variation
95. Butane with molecular formula C_4H_{10} has
 a) 12 covalent bonds b) 13 covalent bonds c) 14 covalent bonds d) 15 covalent bonds
96. "She floats like a laugh from the lips of dream" is an example of:.....
 a) simile b) metaphor c) personification d) alliteration
97. None but the bravethe fair.
 a) deserve b) deserves c) has deserve d) deserved
98. Everybody in a room shake hand with each other. The total number of handshake is 66. Then the total number of person in room is
 a) 11 b) 12 c) 13 d) 14
99. Comets revolve around
 a) Sun b) Earth c) Venus d) No single heavenly body
100. Shyamto New York in 2002.
 a) have moved b) moved c) did moved d) has moved
