



NATIONAL INFOTECH SEC. SCHOOL

+2 ENTRANCE EXAM -2079

SET - II

TIME: 2:15 Hrs.

FM: 100

Attempt all the question

12. The positive of this statement "Bibek did not have any money in his pocket" is....
 A. Bibek had any money in his pocket. C. Bibek has had some money in his pocket.
 B. Bibek did have some money in his pocket. D. Bibek had some money in his pocket.
13. I was made..... a new house
 A. build B. to build C. built D. building
14. The indirect of this statement, Sunita said to Poonam, "You were my best friend" is:
 A. Sunita told Poonam that he had been her best friend
 B. Sunita told to Poonam that she had been her best friend
 C. Sunita told Poonam that she had been her best friend
 D. Sunita told Poonam that she was her best friend
15. He'd better phone Carol,?
 A. wouldn't she B. hadn't he C. would he D. had he
16. Which of the following is plural of the word 'cactus'?
 A. cactusies B. cactus C. Cacties D. cacti
17. The poem 'The Wandered Lonely as a Cloud' is the ordonnance of
 A. William Wordsworth B. William Blake C. Robert Frost D. Robert Pattinson
18. This news is 'genuine', which means it is
 A. artificial B. forged C. real D. pseudo
19. The policeman's 'brutish' appearance terrified the criminal. If means the policeman had..... appearance
 A. docile B. meek C. ferocious D. placid
20. Mrs. Kelly goes to church every Sunday
 A. a B. an C. the D. none

PHYSICS

21. Acceleration due to gravity produced on a body of 5kg is 9.8m/s^2 on earth in vacuum. What will be acceleration due to gravity on a body of 10kg on same condition?
 A. Less than 9.8m/s^2 C. equal to 9.8m/s^2
 B. more that 9.8m/s^2 D. None
22. Two bodies of different masses dropped from the same height but one at equator and another on pole. Which one of the following statement is correct for above condition?
 A. Both bodies strike together. C. Bodies at equator strike ground first
 B. Bodies at pole strike ground first D. None
23. Two bodies of unit mass are separated by unit distance in water. What will be force of gravitation acting between them?
 A. $\frac{20}{3} \times 10^{-11}\text{N}$ B. $6.02 \times 10^{-11}\text{N}$ C. $\pi^2\text{N}$ D. None of above
24. During downstroke in an ordinary water pump
 A. Piston valve is opened but foot valve is closed.
 B. Piston valve is closed but foot valve is opened.
 C. Both piston and foot valves are closed
 D. Both piston and foot valves are opened

B. Virtual image at 30 cm

D. Virtual image at 6 cm

37. Two resistors of 4Ω each is connected in parallel combination and provided 6V potential difference. What will be strength of current in resistance?

A. 1.5 A

B. 2 A

C. 3 A

D. 4 A

38. An electrical appliance is rated 80W/220V. It means

A. it will consume 80KJ of electric energy in one sec

B. it will consume 80J of electric energy in one sec

C. it will consume 220J of electric energy in one sec

D. it will consume 220 KJ of electric energy in one sec

39. Filament lamp is filled with N_2 or Ar because

A. it is conductor

C. it is inert or less reactive

B. it is non-conductor

D. None

40. A person wants to charge his/her mobile of 12V by A.C. circuit of his/her home. Which type of transformer will be used by him/her?

A. step-down transformer

B. step-up transformer

C. 1st step – down and then step – up transformer

D. None

CHEMISTRY

41. Alkali earth metals are kept in group

A. 1

B. 2

C. 3

D. 4

42. Isobar have same

A. electron

B. proton

C. Atomic number

D. Atomic mass

43. An element having electronic configuration of $1s^2, 2s^2 2p^6, 3s^2 3p^3$. It means it is an element of

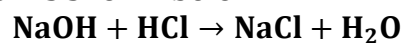
A. Element of 15th group and of 3rd period

C. Element of 16th group and of 3rd period

B. Element of 15th group and of 2nd period

D. Element of 16th group and of 2nd period

44. Which type of chemical reaction is shown below



A. Addition reaction

C. Displacement

B. Decomposition reaction

D. Neutralization reaction

45. What amount of carbon dioxide will be produced after complete oxidation of 10g of carbon?

A. 35.55g

B. 36.66g

C. 37.77g

D. 38.88g

46. Food gets cook faster in pressure cooker than in an open vessel because

A. it increases Boiling point of water

C. it increases temperature of cooker

B. it decreases Boiling point of water

D. it decreases temperature of cooker

47. Which one of the following is called complete fertilizer?

A. Urea

C. Ammonium Sulphate

B. Ammonium Phosphate

D. NPK

- 48. Which one of the following statement is correct for detergent?**
 A. It is bio-degradable
 B. It produces foam even with hard water
 C. It has weak cleaning action
 D. All of above
- 49. Chalcopyrite is an ore of**
 A. Fe
 B. Al
 C. Cu
 D. Ag
- 50. Calcination process takes place**
 A. in absence of oxygen
 B. in presence of oxygen
 C. in limited supply of oxygen
 D. None
- 51. Which one of the following is highly reactive metal?**
 A. Fe
 B. Al
 C. Cu
 D. Ag
- 52. Which one of the following is aldose sugar?**
 A. Glucose
 B. Fructose
 C. both a & b
 D. None
- 53. Propyne is an unsaturated hydrocarbon because**
 A. it has three atoms of carbon
 B. it has four atoms of hydrogen
 C. it has double co - valent bond between carbon atoms
 D. it has triple co-valent bond between carbon atoms
- 54. Three 'H' atoms of propane is replaced by 3 'OH'. Name compound formed**
 A. propyl alcohol
 B. Methyl alcohol
 C. Ethyl alcohol
 D. propane - 1, 2, 3 tricol
- 55. Molecular formula of Acetylene is**
 A. C₂H₆
 B. C₂H₄
 C. C₂H₂
 D. CH₄
- 56. Glycerol is hygroscopic in nature. It means**
 A. it is an alcohol
 B. it can hold moisture
 C. it is an aldehyde
 D. it is a carboxylic acid
- 57. Aqueous solution of CuSO₄ can convert**
 A. blue litmus paper to red
 B. Red litmus paper to blue
 C. Phenolphthalein to pink
 D. All of above
- 58. Metallic oxide and hydroxide are called**
 A. acid
 B. Base
 C. Salt
 D. none
- 59. Alkalis are**
 A. strong base
 B. soluble base
 C. weak base
 D. insoluble base
- 60. To neutralize acidity of human stomach which one of following is suitable**
 A. Mg(OH)₂
 B. NaOH
 C. KOH
 D. None

BIOLOGY

- 61. In F₁-generation only dominant character is expressed because**
 A. All individuals have dominant factors
 B. All individuals have recessive factors
 C. No one has recessive factor
 D. No one has dominant factor
- 62. Mendel selected pea plant for his experiment because**
 A. it was easily available
 C. it has no cross fertilization

78. Which one of the following is called small brain?

- A. cerebrum
B. medulla oblongata
C. pons varolii
D. cerebellum

79. Genotype of an human is (44 + X0). It means person suffering from

- A. Turner's syndrome
B. Klinefelter's syndrome
C. Down's syndrome
D. None

80. Which one of the following is sex-linked disease?

- A. Hemophilia
B. Anaemia
C. Leukemia
D. Poly erthrocythemia

MATHS

81. If $n(A) = 3$, $n(B) = 6$, what can be the minimum number of elements in $A \cup B$?

- A. 3
B. 6
C. 9
D. 18

82. The initial value of a machine is V . What will be its value after 3 years if the rates of depreciation in three successive are $r_1\%$, $r_2\%$ and $r_3\%$ respectively?

- A. $V \left(1 - \frac{r_1}{100}\right) \cdot \left(1 - \frac{r_2}{100}\right) \left(1 - \frac{r_3}{100}\right)$
B. $V \left(1 - \frac{r_1+r_2+r_3}{100}\right)^3$
C. $V \left(1 - \frac{r_1}{100}\right)^3 \cdot \left(1 - \frac{r_2}{100}\right)^3 \cdot \left(1 - \frac{r_3}{100}\right)^3$
D. $V \left[1 - \left(1 - \frac{r_1}{100}\right) \left(1 - \frac{r_2}{100}\right) \left(1 - \frac{r_3}{100}\right)\right]$

83. If Rs 2280 = \$20 and Rs 2,190 = £15, how many dollars can be exchanged for £50?

- A. \$64
B. \$64.04
C. \$64.40
D. \$64.44

84. A solid sphere of radius 'r' has been cut into two equal halves. The total surface area of one half

- A. $2\pi r^2$
B. $4\pi r^2$
C. $3\pi r^2$
D. $\frac{3\pi r^2}{2}$

85. If H and K be the HCF and LCM of the expressions P and Q respectively, then the relation of P, Q, H and K is

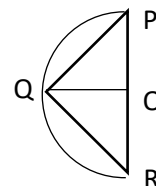
- A. $PK = HQ$
B. $HP = KQ$
C. $HK = PQ$
D. $H + K = P + Q$

86. If $a^x = b^y = c^z$ and $b = ac$, then find the value of $\frac{1}{y} - \frac{1}{z}$

- A. xyz
B. $\frac{1}{xyz}$
C. $\frac{1}{x}$
D. $\frac{1}{2}$

87. In the semi-circle given alongside, O is the centre. If $OQ = 6.5$ cm and $PQ = 5$ cm what is the length of QR?

- A. 13 cm
B. 11.5 cm
C. 9 cm
D. 12 cm



88. The difference of square of two consecutive numbers is 5. Find the numbers

- A. 1 and 2
B. 9 and 4
C. 12 and 13
D. 2 and 3

89. What is the probability of getting 3 on the dice and head on the coin when a dice is rolled and a coin is tossed simultaneously?
 A. $\frac{1}{6}$ B. $\frac{1}{8}$ C. $\frac{1}{12}$ D. $\frac{3}{4}$
90. If difference of mean and assumed mean $(\bar{X} - A) = 8$ and $\sum fd = 472$, find the number of terms (N)
 A. 26 B. 24 C. 62 D. 59
91. The value of $\sin 54^\circ$ is
 A. $\frac{\sqrt{5}-1}{4}$ B. $\frac{\sqrt{5}-1}{2}$ C. $\frac{-1-\sqrt{5}}{4}$ D. $\frac{1+\sqrt{5}}{4}$
92. A plane perpendicularly intersects a cone not passing through the vertex. Name the section so formed.
 A. Circle B. Ellipse C. Hyperbola D. Parabola
93. If the circle $x^2 + y^2 + ax + 2y - 4 = 0$ passes through the point (2, 2), find the centre of the circle.
 A. (-2, -1) B. (2, -1) C. (-1, 2) D. (2, 1)
94. What is the angle between the lines $x = y$ and $x = -y$?
 A. 0° B. ∞ C. 90° D. -90°
95. What is the value of $\vec{i} \cdot \vec{j}$?
 A. 1 B. -1 C. 2 D. 0
96. If the third term of a geometric series is 5, find the product of its first five terms.
 A. 1025 B. 625 C. 3025 D. 3125
97. Which domain of the function between f and g is equal to the domain of the functions fog(x)?
 A. function f B. function g C. function fog D. function gof
98. If A and B are two square matrices of same order then which of following is true?
 A. $A + B = B + A$ C. $A - B = B - A$
 B. $(AB)^T = A^T \cdot B^T$ D. $AB = BA$
99. If a 2 x 2 transformation matrix which transform a unit square to the parallelogram $\begin{pmatrix} 0 & 4 & 6 & 2 \\ 0 & 0 & 2 & 2 \end{pmatrix}$, then the matrix is
 A. $\begin{pmatrix} 4 & 0 \\ 2 & 2 \end{pmatrix}$ B. $\begin{pmatrix} 4 & 6 \\ 0 & 2 \end{pmatrix}$ C. $\begin{pmatrix} 4 & 2 \\ 0 & 2 \end{pmatrix}$ D. $\begin{pmatrix} 2 & 0 \\ 2 & 4 \end{pmatrix}$
100. If $\frac{1}{x} + \frac{1}{y} = \frac{1}{z}$ and $xy = z$ what is the average of x and y?
 A. 0 B. $\frac{1}{2}$ C. 1 D. $\frac{x+y}{z}$

