

64. If $\cot A = \frac{1}{\sqrt{3}}$, $0 < A \leq 90^\circ$, then A is
 A. 30° B. 45° C. 60° D. 90°

65. If $5 \tan A = 4$, find the value of

A. $\frac{1}{3}$ B. $\frac{1}{5}$ C. $\frac{1}{6}$ D. $\frac{1}{5}$

66. The ratio of volume of a circular cylinder and right circular cone of the same base and height will be -
 A. 1 : 3 B. 3 : 1 C. 4 : 3 D. 3 : 4

67. The value of y , $y^2 - \frac{1}{3}y = \frac{2}{9}$

A. $-\frac{1}{3}, \frac{2}{3}$ B. $\frac{1}{3}, -\frac{2}{3}$ C. $\frac{5}{3}, \frac{4}{5}$ D. $\frac{2}{3}, \frac{3}{4}$

68. If $a^2 + b^2 = 45$ and $ab = 18$ then $\frac{1}{a} + \frac{1}{b}$ is

A. $\frac{1}{3}$ B. $\frac{2}{3}$ C. $\frac{1}{2}$ D. 3

69. In which quadrant point (-5, -7) lies

A. 1st B. 2nd C. 3rd D. 4th

70. The LCM of two numbers is 2079 and their HCF is 27. If one of the number is 189. The other number is -
 A. 297 B. 279 C. 792 D. 279

71. Newton's first law is based in part on the work of

A. Dalton B. Davy C. Galileo D. Joule

72. The smallest unit of memory is

A. 16 bytes B. 8 bits C. 1 kilobyte D. 1 G B

73. Who defined the binary system

A. A N D Leibniz B. Pascal C. Newton D. Aristotle

74. Which of them is not a unit of time

A. Light year B. Nano second C. Micro second D. Second

75. The temperature at which no more energy can be removed from matter is called

A. Absolute Zero B. Boiling point C. 32°F D. 32°C

76. A gas having the smell of rotten egg.

A. Chlorine B. Helium C. Hydrogen sulphide D. Sulphur dioxide

77. The highest refractive index is of

A. Glass B. Water C. Diamond D. Ruby

78. An organic weak acid is

A. Formic acid B. Sulphuric acid C. Nitric acid D. Hydrochloric acid

79. The country that will host the 8th BRICS summit in 2016

A. Britan B. Russia C. India D. China

80. Champions of IPL 2015

A. Chennai Super kings B. Kolkatta knight Riders
 C. Punjab Kings D. Rajasthan Royals

Choose the correct answer from right side.

(10x2=20)

81. The average of odd number upto 50

A. Sugar

82. International Day of Yoga

B. Theobromine

83. $\sqrt{625^{0.26} \times 625^{0.24}}$

C. Kochi

84. Cat dancing disease

D. Glucose

85. $\text{C}_{12}\text{H}_{22}\text{O}_{11}$

E. Dehradun

86. Indian Navy Academy

F. 5

87. Indian Military Academy

G. Minamatha

88. Stimulating agent in cocoa

H. 21 june

89. World press Day

I. 25

90. $\text{C}_6\text{H}_{12}\text{O}_6$

J. May 3

STD : X

SET - I

QUESTION PAPER

Time : 90 minutes
Max.Marks : 100

Reg. No:

Choose the Correct answer and darken the bubble corresponding to the Question number

(80x1=80)

1. Rainbow is caused due to the _____ of light.

A. Reflection B. Refraction C. Dispersion D. All the above

2. The country of Windmills

A. Australia B. Britain C. Canada D. Denmark

3. The gram molecular weight of $(\text{NH}_4)_2\text{Cr}_2\text{O}_7 \cdot 5\text{H}_2\text{O}$ is

A. 252 amu B. 252g C. 248amu D. 248g

4. What is the best source of pure cellulose

A. Coir B. Hemp C. Jute fibre D. Cotton fibre

5. -5°C corresponds to which temperature on the Fahrenheit scale

A. 9°F B. 14°F C. 23°F D. 28°F

6. Gobar Gas contains mainly

A. Carbon dioxide B. Methane C. Ethylene D. Carbon monoxide

7. The vitamin responsible for anti-sterile activity is

A. Vit A B. Vit B C. Vit E D. Vit K

8. Brass is an alloy of

A. Copper & Tin B. Copper & Zink C. Zinc & Lead D. Lead & Tin

9. What is the Voltage of domestic supply

A. 330 V B. 220 V C. 11 KV D. None of these

10. The focal length of a plane mirror is

A. 1 m B. Zero C. Infinite D. 50cm

11. Best feature film of 62nd National film award 2014

A. Mary Com B. Haider C. Court D. Queen

12. Meteorology is the Science of

A. Metels B. Weather C. Earthquakes D. Roads

13. In the Einstein Equation $E = mc^2$, c denotes:

A. Velocity of sound B. Velocity of light C. A constant D. Current

14. A microphone is used to convert

A. Sound waves into light energy B. Sound waves to electrical energy
 C. Sound waves into thermal energy D. Electrical energy to sound waves

15. Bauxite is an important ore of

A. Copper B. Zinc C. Aluminium D. Iron

16. Malaria is a disease which affects

A. Liver B. Spleen C. Intestine D. Lungs

17. What is the SI unit of temperature

A. Celsius B. Kelvin C. Centigrade D. Fahrenheit

18. The source of solar energy is

A. Nuclear fission B. Nuclear fusion C. Sinking of the sun D. None of these

19. The Raman effect is used :
- A. In the study of X-rays B. In the study of cells
C. In the study of chromosomes D. In the study of molecular energy levels
20. Dialysis is used for a patient suffering from
- A. Liver trouble B. Lung trouble C. Kidney trouble D. Heart trouble
21. Which disease is caused by a virus
- A. Typhoid B. Malaria C. Cholera D. Small pox
22. ‘Sukanya Samridhi Account’ scheme was launched by Prime Minister Nerendra Modi on
- A. 22nd January 2015 B. 21st June 2015 C. 22nd July 2015 D. 22nd April 2015
23. The president of India who exercised his franchise in Assembly elections
- A. R.Venkitaraman B. Zakkir Hussain C. APJ Abdul Kalam D. None of these
24. ‘Davis Cup’ is associated with the sport
- A. Cricket B. Lawn Tennis C. Table Tennis D. Hockey
25. The Home rule movement was launched by
- A. Annie Besant B. Bal Gangadhar Tilak C. Mahatma Gandhi D. Nehru
26. Panchayati Raj as introduced in 1949 operates at
- A. Samiti & block levels B. Block & district levels
C. Samiti & district levels D. Village, Block & district levels
27. Which blood vessels carry oxygenated blood
- A. Veins B. Arteries C. Plasma D. Capillaries
28. The unit of potential difference is
- A. Ampere B. Volt C. Ohm D. Coulomb
29. Which of the following is amphoteric in nature
- A. Cr B. Mn C. Cu D. Zn
30. Sardar Sarovar Dam is constructed on
- A. Narmada B. Yamuna C. Godavari D. Ganga
31. If CPNCBZ means Bombay, which does PSCJU mean
- A. Calcutta B. Madras C. Orbit D. Space
32. If August 14 falls on a monday, what day will be the first day of the next month
- A. Sunday B. Friday C. Saturday D. Monday
33. Pick the wrong element in the sequence 7,26, 63,126,215, 342.....
- A. 7 B. 28 C. 126 D. 342
34. vaf, zej,_____, jot, puz
- A. cin B. dbh C. dic D. din
35. (5 , 7) , _____ , (17 , 19) ,
- A. (7 , 9) B. (9 , 11) C. (11 , 13) D. (15 , 17)
36. If $a*b = a^2+b^2+ab -1$ then $-(\quad) = ?$
- A. 10 B. 5 C. 14 D. 15
37. A clock shows the time 12.10, then what is the time in its mirror image
- A. 11.30 B. 8.10 C. 11.50 D. 12.40
38. If A = -, B = +, C = , D = x, then 20C5A3134D2=?
- A. 19 B. 9 C. 12 D. 11
- 39.How many days are there in between 1999 Jan 15 and 1999 May 24
- A. 130 B. 120 C. 140 D. 150
40. It takes 2 minutes to boil a single egg. How many minutes will it take to boil 5 eggs together
- A. 10 minutes B. 5 minutes C. 2 mintutes D. 3 minutes
41. Which is the highest e-waste generating country in Asia.
- A. India B. Japan C. China D. North Korea
42. The vapour density of CO₂
- A. 12 B. 16 C. 44 D. 22

43. In automobiles, the mirror used to see the rear view, is
- A. Concave mirror B. Plane mirror C. Convex mirror D. Any spherical mirror
44. Human saliva contains enzymes
- A. Pepsin B. Trypsin C. Ptyalin D. Amylase
45. Champions of FIFA World Cup 2014
- A. Brazil B. Argentina C. Germany D. Chile
46. The measure of the acidity or alkalinity of a material when dissolved in water is called
- A. Radian B. PH value C. Valency D. None of this
47. Vikram Sarabhai Space Centre is located at
- A. Sriharikota B. Thumba C. Trivandrum D. Bangalore
48. Who gave the low of gravitation
- A. Galileo B. Faraday C. Newton D. Archimedes
49. Bhatnagar Award is given in the field of
- A. Agriculture B. Literature C. Painting D. Science
50. Which metal is used in storage batteries
- A. Copper B. Lead C. Aluminium D. Zinc
51. What is the highest rank in the Indian Navy
- A. Rear admiral B. Vice admiral C. Commodore D. Admiral
52. Which of the following is present in greater proportion in bones
- A. Calcium B. Phosphorus C. Iron D. Iodine
53. Cornea is a transparent spherical structure which
- A. Reflects light B. Scatters light C. Refracts light D. None of these
54. Which polynomial represents (3x²+x-4) (2x-5)
- A. 6x³-13x²-13x-20 B. 6x³-13x²-13x+20
C. 6x³+13x²+3x-20 D. 6x³+13x²+13x+20
55. What is the nth term in the arithmetic series 3+7+11+15+19.....
- A. 4n B. 3+4n C. 2n+1 D. 4n-1
56. A copper sphere of diameter 18 cm is drawn into a wire of diameter 4mm. Find the length of the wire.
- A. 240 m B. 242 m C. 243 m D. 245 m
57.
$$\frac{5x^3 + 2x^2 - 15x + 1}{x - 2} = x^2 + 4x + 13 + \underline{\hspace{2cm}}$$
- A. $\frac{30}{x-2}$ B. $\frac{40}{x-2}$ C. $\frac{50}{x-2}$ D. $\frac{13}{x-2}$
58. The mean of the first n natural number is
- A. n B. $\frac{n+1}{2}$ C. $\frac{n}{2}$ D. $\frac{n(n+1)}{2}$
59. The sum all exterior angles of a polygon is
- A. 360 B. 180 C. 720 D. 90
60. The sum of the probabilities of all the elementary events of an experiment is
- A. 0 B. 1 C. 1/2 D. None
61. In a grouped frequency distribution the class in which $\frac{N}{2}$ th observation falls in cumilative frequency is called.
- A. Model class B. Median class C. Deviation class D.None
62. A quadratic eqnation an²+bx+c=0 has two equal roots if
- A. b²-4ac > B. b²-4ac=0 C. b²-4ac <0 D. a=0 , b=0
63. The distance of a point P (a , b) from the origin is
- A. a-b B. a+b C. $\sqrt{a^2 + b^2}$ D. 2ab