

1. Who among the following is famous for translating the Holy Quran into English?
(a) M.M. Pickthall (b) P.G. Woode
(c) A.Imran Ali (d) Usman Ghazi
2. How many Surahs are there in the Holy Quran?
(a) 111 (b) 114 (c) 118 (d) 121
3. Under whose reign did mosque building reach its peak?
(a) Babar (b) Humayun
(c) Shah Jahan (d) Aurangzeb
4. Which of the following was not a part of Akbar's empire?
(a) Kashmir (b) Assam
(c) Kandhar (d) Bengal and Orissa
5. The famous book "Seerat-un-Nabi" was written by:
(a) Shah Waliullah (b) Sir Syed
(c) Maulana Shibli (d) Maulana Mohd Ali
6. Who wrote "India Wins Freedom"?
(a) Maulana Abul Kalam Azad
(b) Khwaja Moinuddin Chishti
(c) J.L. Nehru (d) M.K. Gandhi
7. When Prophet Muhammad's mothers died what was his approximate age?
(a) 4 years (b) 5 years (c) 6 years (d) 7 years
8. The last sermon of Prophet Muhammad was delivered on:
(a) 10th day of Dhil Hijjah
(b) 9th day of Dhil Hijjah
(c) 8th day of Dhil Hijjah
(d) 7th day of Dhil Hijjah
9. Hajj is obligatory upon Muslims if they?
(a) can afford it (b) are married (c) are adults
(d) fulfill all of the above criteria
10. How many months are there in the Islamic calendar?
(a) 10 (b) 11 (c) 12 (d) 13
11. Who wrote "The White Tiger"?
(a) Arvind Adiga (b) Kiran Desai
(c) J.M. Coetzee (d) Salman Rushdie
12. The Union Health Minister of India is :
(a) Mukul Wasnik (b) Ambika Soni
(c) Ghulam Nabi Azad (d) Kapil Sibal
13. Who wrote "The Fountainhead"?
(a) John Osborne (b) Ayn Rand
(c) Henry Miller (d) Pearl S. Buck
14. With which game is the Ryder Cup associated?
(a) Polo (b) Hockey (c) Horse racing (d) Golf
15. Which of the following countries has the largest Muslim population?
(a) India (b) Pakistan (c) Indonesia (d) Iran
16. Who is the Chairman of the Public Account Committee?
(a) Murli Manohar Joshi (b) Arun Jaitely
(c) Ahmad Patel (d) Praful Patel
17. India is the biggest producer of rice in the world.
(a) 2nd (b) 3rd (c) 4th (d) 5th
18. Nira Radia is a :
(a) Film star (b) Corporate lobbyist
(c) Journalist (d) Novelist
19. Which famous financier was sentenced to 150 years in prison, for financial fraud, in the U.S.?
(a) David Souter (b) Bernie Madoff
(c) John Koore (d) Tom Paine
20. Which famous Indian historian was awarded the John W. Kluge Prize?
(a) Irfan Habib (b) Bipin Chandra
(c) Sumit Sarkar (d) Romila Thapar
21. Consider the following statements:
A : Every whole number is a natural number.
B : Every rational number is an integer.
In Your opinion :
(a) Only A is true
(b) Only B is true
(c) Both A and B are true.
(d) Both A and B are false
22. 0.2313131 ----- is equal to :
(a) $\frac{229}{999}$ (b) $\frac{229}{990}$ (c) $\frac{231}{990}$ (d) $\frac{231}{99}$
23. If α, β, γ are the zeros of the cubic polynomial $x^3 - mx^2 + nx - 1$, then :
(a) $\alpha + \beta + \gamma = m, \alpha\beta + \beta\gamma + \gamma\alpha = n, \alpha\beta\gamma = 1$
(b) $\alpha + \beta + \gamma = -m, \alpha\beta + \beta\gamma + \gamma\alpha = n, \alpha\beta\gamma = -1$
(c) $\alpha + \beta + \gamma = m, \alpha\beta + \beta\gamma + \gamma\alpha = -n, \alpha\beta\gamma = 1$
(d) $\alpha + \beta + \gamma = m, \alpha\beta + \beta\gamma + \gamma\alpha = n, \alpha\beta\gamma = -1$

24. For what value of x are the points $(x, 7)$, $(5, 3)$ and $(7, 1)$ collinear?
 (a) 1 (b) 2 (c) 3 (d) 4
25. The point on the x -axis, which is equidistant from $(3, -5)$ and $(6, 2)$ is:
 (a) $(1, 0)$ (b) $(2, 0)$ (c) $(4, 0)$ (d) $(4.5, 0)$
26. If AB is the diameter of a circle whose centre is at $(-2, -1)$ and A is $(4, -3)$ then B is:
 (a) $(1, -2)$ (b) $(2, -2)$ (c) $(6, -4)$ (d) $(-8, 1)$
27. The area of the triangle formed by joining the middle points of the sides of the triangle whose vertices are $(0, 16)$, $(0, 0)$ and $(4, 0)$ is:
 (a) 8 (b) $32/3$ (c) 16 (d) 32

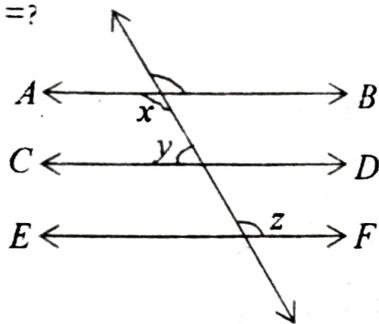
28. Is there a temperature which is numerically the same in both Fahrenheit and Celsius? If yes, find it:

- (a) There is no such temperature
 (b) -100 (c) -40 (d) 0

29. If $2x + y = 2xy$ and $\frac{2x + 4y}{xy} = 5$, then $x = ?$

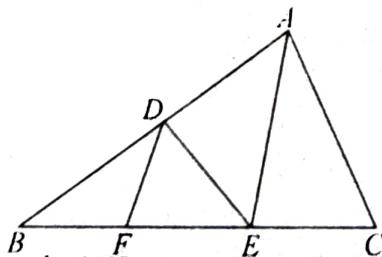
- (a) 0 (b) 1 (c) 2 (d) 2.5

30. If $AB \parallel CD$ and $CD \parallel EF$ and $x : y :: 7 : 3$, then $z = ?$



- (a) 54 (b) 126 (c) 140 (d) none of these

31. In ΔABC , $DE \parallel AC$ and $DF \parallel AE$. If $AD = 2$ cm, $AB = 6$ cm, $FE = 1.5$ cm, then $BC = ?$



- (a) 4.5 cm (b) 6.75 cm (c) 7.5 cm (d) 9 cm

32. Diagonals of a trapezium $ABCD$ with $AB \parallel CD$ intersect each other at O . If $2AB = 3CD$, the ratio of the areas of triangles AOB and COD is:

- (a) 2:3 (b) 3:2 (c) 4:9 (d) 9:4

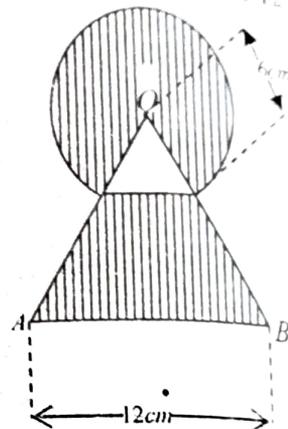
33. In a circle of radius 5 cm, chords PQ and QR are 6 cm. Then the length of chord $PR =$

- (a) 8 cm (b) 9.6 cm (c) $6\sqrt{2}$ cm (d) 12 cm

34. Two concentric circles are of radii 3 cm and 4 cm. The length of the chord of the larger circle which touches the smaller circle is:

- (a) $\sqrt{7}$ cm (b) 5 cm (c) $2\sqrt{7}$ cm (d) 10 cm

35. What is the area of the shaded region where a circular arc of radius 6 cm has been drawn with vertex O of an equilateral OAB of side 12 cm as centre?



- (a) $30(\pi + \sqrt{3})$ cm² (b) $(24\pi + 36\sqrt{3})$ cm²
 (c) $36(\pi + \sqrt{3})$ cm² (d) none

36. A village having a population of 6000, requires 100 litres of water per head per day. It has a tank measuring $25\text{m} \times 12\text{m} \times 6\text{m}$. For how many days will the water of this tank last?

- (a) 1 day (b) 2 days (c) 3 days (d) 6 days

37. The curved surface area of a frustum of cone of radii r_1 and r_2 and height h equals $\pi l (r_1 + r_2)$. Then $l^2 = ?$

- (a) $h^2 + r_1^2 + r_2^2$ (b) $h^2 + (r_1 - r_2)^2$
 (c) $h^2 - (r_1 - r_2)^2$ (d) $(h - r_1)^2 + (h - r_2)^2$

38. A solid cylinder of base of 36 cm diameter is melted and recast into a solid cone height 24 cm and radius of the base 36 cm. Height of the cylinder is:

- (a) 24 cm (b) 30 cm (c) 32 cm (d) $12\sqrt{13}$ cm

39. Which of the following is not a measure of central tendency for ungrouped data?

- (a) Mean (b) Median (c) Mode (d) Histogram

40. The median of the distribution given below is 285.

Class - interval	Frequency
0-100	4
100-200	x
200-300	20
300-400	15
400-500	y
500-600	5
Total	60

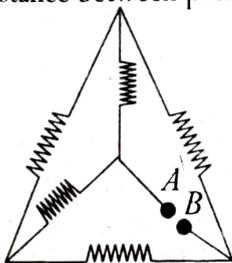
The values of x,y are respectively:

- (a)6,10 (b)7,9 (c)9,7 (d)10,6

41. The probability of an event lies between:
 (a)0 and 1 (0 and 1 inclusive)
 (b)0 and 1 (0 and 1 exclusive)
 (c) -1 and +1 (d)0 and ∞
42. Consider the following statements.
 A: The probability of a sure event is 1
 B: The probability of an impossible event is -1
 C: For any event E, $P(E) + P(\bar{E}) = 1$ where (\bar{E}) stands for 'not E'. In your opinion
 (a) Only A is correct
 (b) Only B is incorrect
 (c) All the three are correct
 (d) All the three are incorrect
43. A box contain 90 discs, numbered from 1 to 90. If one disc is drawn at random from the box, the probability that it bears a two digit number is :
 (a)1/90 (b)1/2 (c)8/9 (d)9/10
44. Consider the following statements.
 A: Only one line can pass through a single point
 B: Two distinct lines cannot have more than one point in common.
 What is your opinion?
 (a) Only A is correct (b) Only B is correct
 (c) Both A and B are correct
 (d) Both A and B are incorrect
45. ABCD is a parallelogram $AD \perp DC$ and $CF \perp AD$. If $AB=8\text{cm}$, $AE=4\text{cm}$, $CF=5\text{cm}$, then $AD = ?$
 (a)2.5 cm (b)3.2cm (c)6cm (d)6.4cm
46. Sum of areas of two squares is 117m^2 . If the difference of their perimeters is 12m, What is the length of the smaller square?
 (a)4m (b)5m (c)6m (d)7m
47. Which one of the following is not an AP?
 (a) $1^2, 2^2-1^2, 3^2-2^2, 4^2-3^2, \dots$
 (b) $\sqrt{2}, \sqrt{8}, \sqrt{18}, \sqrt{32}, \dots$
 (c) $2, 3+\sqrt{2}, 4+2\sqrt{2}, 5+3\sqrt{2}, \dots$
 (d) $0.2, 0.22, 0.222, 0.2222, \dots$
48. The sum of odd numbers between 0 and 100 is: (a)2400 (b)2450 (c)2500 (d)2550
49. If $\cot 3A = \tan(A-10^\circ)$, where 3A is an acute angle, then the value of A is :
 (a) 20° (b) 25° (c) 30° (d) 40°
50. The shadow of a tower, standing on a level ground, is found to be 30m longer when the sun's altitude is 30° than when it is 60° . What is the height of the tower?
 (a) $10\sqrt{3}\text{m}$ (b) 15m (c) $15\sqrt{3}\text{m}$ (d) $20\sqrt{3}\text{m}$
51. Consider the velocity-time graph of an object that moves under uniform acceleration. The slope of this graph gives us:
 (a) kinetic energy of the object
 (b) momentum of the object
 (c) acceleration of the object
 (d) speed of the object
52. A motorcar is moving with a velocity of 72 km/h and it takes 5 seconds to stop after brakes are applied. Calculate the force exerted by the brakes on the motorcar if its mass along with the passengers is 900 kg.
 (a)5400 N (b)4500 N (c)3100 N (d)-3600 N
53. A bullet of mass 40 g is horizontally fired with a velocity 200ms^{-1} from a pistol of mass 2 kg. What is the recoil velocity of the pistol?
 (a)10 m/s (b)-8m/s (c)5m/s (d)-4m/s
54. A stone is allowed to fall from the top of a tower 50 m high and at the same time another stone is projected vertically upwards from the ground with a velocity of 25m/s. Calculate when the two stones will meet :
 (a)2s (b)4s (c)8s (d)10s
55. What is the work to be done to increase the velocity of a car from 36kmh^{-1} to 72kmh^{-1} if the mass of the car is 2000 Kg?
 (a) $5 \times 10^7\text{J}$ (b) $2 \times 10^6\text{J}$ (c) $3 \times 10^5\text{J}$ (d) $4 \times 10^3\text{J}$
56. At a given temperature, the speed of sound is greater :
 (a) in vacuum (b) in air
 (c) in water (d) in aluminium
57. An object, 5.0 cm in size is placed at 25.0 cm in front of a concave mirror of focal length 20.0 cm and a sharp image is obtained on the

screen placed at the proper location. What is the height of the image?

- (a) 20cm (b) -10cm (c) -6cm (d) +20cm
58. The human beings have two eyes instead of one because :
- (a) It gives a wider field of view
 (b) It gives a smaller field of view
 (c) distant objects can be seen easily
 (d) coloured projects can be seen easily
59. The electrical resistivity of diamond at 20°C may be of the order of :
- (a) $10^{-8} \Omega\text{m}$ (b) $10^{-6} \Omega\text{m}$ (c) $10^3 \Omega\text{m}$ (d) $10^{12} \Omega\text{m}$
60. How many 440 Ω resistors (in parallel) are required to carry 5 A on a 220 V line?
- (a) 4 (b) 6 (c) 8 (d) 10
61. A network of five identical resistors, each of value 25 Ω is made as shown in the figure. Equivalent resistance between points A and B is :



- (a) 125 Ω (b) 50 Ω (c) 25 Ω (d) 15 Ω
62. A rectangular coil of copper wires is rotated in a magnetic field. The direction of the induced current changes once in each:
- (a) Half revolution (b) one revolution
 (c) one-fourth revolution (d) two revolution
63. Most of the sources of energy we use represent stored solar energy. Which of the following is not ultimately derived from the Sun's energy?
- (a) geothermal energy (b) nuclear energy
 (c) wind energy (d) bio-mass
64. The estimated coal reserves of earth are said to be enough to last another :
- (a) 5000 years (b) 1000 years
 (c) 200 years (d) 50 years
65. The energy produced in the fission of an atom of Uranium is nearly :
- (a) 10 million times the energy produced by the combustion of a carbon atom from coal.
 (b) 100 million times the energy produced by the combustion of a carbon atom from coal.

- (c) 1,000 million times the energy produced by the combustion of a carbon atom from coal.
 (d) 10,000 million times the energy produced by the combustion of a carbon atom from coal.
66. Tick (\checkmark) the correct statement :
- (a) Water vapours at 100°C have less energy than water at 100°C
 (b) Water vapours at 100°C more energy than water at 100°C
 (c) Water vapours at 100°C have equal to water at 100°C
 (d) None of the above statement is correct.
67. Tick (\checkmark) the correct statement :
- (a) Camphor and ammonium chloride both undergo sublimation
 (b) Only ammonium chloride undergoes sublimation
 (c) Only camphor undergoes sublimation
 (d) Neither of them undergoes sublimation
68. Which of the following metals is /are liquid at 50°C?
- (a) gallium (b) mercury
 (c) cesium (d) all the above
69. The law of conservation of mass during a chemical reaction was established by :
- (a) Maharishi Kanad and Pakudha Katayayama
 (b) Antoine L. Lavoisier and Joseph L. Proust
 (c) Antoine L. Lavoisier only
 (d) Joseph L. Proust only
70. Which one of the following elements does not show any isotopes?
- (a) Carbon (b) Hydrogen
 (c) Argon (d) Chlorine
71. A chemical reaction may have taken place if we observe :
- (a) Change in state and evolution of gas
 (b) Change in color and temperature
 (c) Both (A) and (B) (d) None
72. Which one of the following equations is balanced?
- (a) $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + \text{O}_2$
 (b) $3\text{Fe} + 4\text{H}_2\text{O} \rightarrow \text{Fe}_3\text{O}_4 + \text{H}_2$
 (c) $\text{CH}_3\text{OH} + \text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$
 (d) $\text{Ca}(\text{OH})_2 + \text{CO}_2 \rightarrow \text{CaCO}_3 + \text{H}_2\text{O}$

73. Sodium bicarbonate is used as :
 (a) Baking powder (b) fire extinguisher
 (c) Both the above (d) None
74. The example(s) of amphoteric oxide (s) is/are:
 (a) Al_2O_3 and ZnO both (b) Al_2O_3 Only
 (c) ZnO only (d) None
75. Tick the name of the non-metal which is liquid at room temperature :
 (a) Mercury (b) Iodine
 (c) Sulphur (d) Bromine
76. Tick one which is not an allotrope of carbon :
 (a) Diamonds (b) Cryptands
 (c) Graphite (d) Fullerenes
77. Number of covalent bonds in propane (C_3H_8) is : (a) 8 (b) 9 (c) 10 (d) 11
78. The metallic properties of elements in modern periodic table :
 (a) Increase in a period from left to right
 (b) Increase in a group from top to bottom
 (c) both the statements (A) and (B) are correct
 (d) none
79. The position of an element in periodic table indicates its :
 (a) chemical reactivity
 (b) number of electrons in its outermost shell
 (c) atomic number
 (d) all the above
80. Silicon is surrounded by the elements of atomic number 6, 13, 15 and 32 in the periodic table, then :
 (a) the properties of the elements of atomic number 6 and 32 will be similar to silicon.
 (b) the properties of the elements of atomic number 13 and 15 will be similar to silicon
 (c) the properties of the elements of atomic numbers 6 and 13 will be similar to silicon
 (d) the properties of elements of atomic number 15 and 32 will be similar to silicon.
81. Which of the following organelle is present in plant cells only :
 (a) Mitochondria (b) Plastids
 (c) Vacuoles (d) Endoplasmic reticulum
82. Which of the following is not a meristematic tissue?
 (a) Inercalary meristem (b) Cambium
 (c) Apical meristem (d) Vascular bundle
83. Which of the following is a thin walled simple permanent tissue?
 (a) Collenchyma (b) Sclerenchyma
 (c) Parenchyma (d) Vessel element
84. Which of the following group of plants are without specialized vascular system?
 (a) Monocots (b) Pteridophytes
 (c) Bryophytes (d) Gymnosperms
85. Protective Tissues in animal body is:
 (a) Connective tissue (b) Epithelial tissue
 (c) Muscular tissue (d) Areolar connective tissue
86. Arthropoda with a meaning of jointed legs does not include :
 (a) Scorpion (b) Housefly
 (c) Prawn (d) Octopus
87. Which of the following is not placed under pisces?
 (a) Rohu fish (b) Sea horse
 (c) Flying fish (d) Whale
88. Which of the following animal is not placed with aves?
 (a) Bat (b) Ostrich
 (c) Pigeon (d) Sparrow
89. Carbon and energy requirements of autotrophs are fulfilled through :
 (a) Nutrition from soil (b) Respiration
 (c) Assimilation (d) Photosynthesis
90. The translocation of photosynthates in phloem is achieved by utilising :
 (a) Pressure gradient (b) Energy from ATP
 (c) Suction pressure
 (d) Without osmotic and suction pressure
91. The growth inhibiting hormone in plant is
 (a) Gibberellin (b) Auxin
 (c) Cytokinins (d) Abscisic acid
92. In germinating seeds, the organ which elongates to become future shoot is called as :
 (a) Plumule (b) Radicle
 (c) Embryo (d) Cotyledons
93. Central nervous system in humans consist of :
 (a) brain and nerve tissues
 (b) brain and spinal cord
 (c) brain, spinal cord and veins
 (d) brain only
94. The reflex arc connection between input nerves and output nerves are first made in:
 (a) spinal cord (b) brain

- (c) muscles (d) skin
95. The gastric glands present in the walls of stomach release mainly :
 (a) Bilirubin, HCl, Mucus
 (b) HCl, Enzymes, Saliva
 (c) Hydrochloric Acid, Enzyme Pepsin and Mucus
 (d) Enzyme, insulin, saliva
96. The respiratory pigment present in the red blood corpuscles of human blood is :
 (a) WBC (white blood corpuscles)
 (b) Eosinophils
 (c) Haemoglobin (d) Blood sucrose
97. In human heart, de-oxygenated blood from the body comes to :
 (a) Right atrium (b) Left atrium

- (c) Right ventricle (d) Left ventricle
98. Which hormone is directly released in the blood of humans and many animals?
 (a) Thyroxin (b) Insulin
 (c) Adrenaline (d) Oestrogen
99. The common mode of reproduction in *Hydra* is :
 (a) Fission (b) Fragmentation
 (c) Regeneration and budding
 (d) Fission and fragmentation
100. Carpel of a flower consists of which of the following parts?
 (a) Stigma, style, filament
 (b) Filament, anther, pollen
 (c) Ovary and ovule
 (d) Stigma, style, ovary

ANSWERS 2011-2012

1	a
2	b
3	c
4	b
5	c
6	a
7	c
8	b
9	a
10	c
11	a
12	c
13	b
14	d
15	c
16	a
17	a
18	b
19	b
20	d
21	d
22	b
23	a
24	a
25	a

26	d
27	a
28	c
29	b
30	b
31	b
32	d
33	b
34	c
35	b
36	c
37	b
38	c
39	d
40	c
41	a
42	a
43	d
44	b
45	d
46	c
47	d
48	c
49	b
50	c

51	c
52	d
53	d
54	a
55	c
56	d
57	a
58	a
59	d
60	d
61	c
62	a
63	b
64	c
65	a
66	b
67	a
68	d
69	b
70	c
71	c
72	d
73	c
74	a
75	d

76	b
77	c
78	b
79	d
80	a
81	b
82	d
83	c
84	c
85	b
86	d
87	d
88	a
89	d
90	b
91	d
92	a
93	b
94	a
95	c
96	c
97	a
98	c
99	c
100	d