

9. ΔPQR is an equilateral triangle with coordinates of Q and R as $(-2,0)$ and $(2,0)$ respectively. If P lies on Y-axis, then the coordinates of vertex P is -----
(a) $(4,0)$ (b) $(0,4)$ (c) $(0,2\sqrt{3})$ (d) $(0,4\sqrt{3})$

10. The mean of 5 numbers is 30. If one number is excluded, their mean becomes 28, then the excluded number is -----
(a) 28 (b) 30 (c) 35 (d) 38

11. At what point does the graph of the linear equation $2x + 3y = 17$ meet a line, which is parallel to Y axis at a distance 4 units from the origin and on the right of Y axis.
(a) $(4, 1/3)$ (b) $(3, 4)$ (c) $(-4, 3)$ (d) $(4, 3)$

12. If $x + \frac{1}{x} = 4$, then find the value of $x^2 + \frac{1}{x^2}$
a) 14 (b) 10 (c) 20 (d) 15

13. In a single throw of two dice what is the probability of getting a sum of 9?
a) $\frac{1}{9}$ (b) $\frac{3}{4}$ (c) $\frac{1}{4}$ (d) $\frac{2}{9}$

14. An equilateral triangle ABC is inscribed in a circle with centre O. Find the measure of $\angle BOC$.
a) 60° (b) 120° (c) 180° (d) 90°

15. The value of $5.63 \times 5.63 + 11.26 \times 2.37 + 2.37 \times 2.37$ is-----
(a) 237 (b) 126 (c) 56 (d) 64

16. $1/(\sqrt{9}-\sqrt{8})$ is equal to
(a) $3+2\sqrt{2}$ (b) $1/3+2\sqrt{2}$ (c) $3-2\sqrt{2}$ (d) $3/2 - 2$

17. The stem and leaf of a banana plant cannot sink in water due to the presence of -----
a. Chlorenchymab. Sclerenchyma
c. Collenchyma d. Aerenchyma

18. A boy runs with same speed on a circular tread of radius 7 meters. He can complete one revolution in 40 seconds. If he runs for 50 seconds, his displacement and distance travelled are:
- a) 5m & 44m
 b) $7\sqrt{2}m$ & 44m
 c) $7\sqrt{2}m$ & 55m
 d) 10m & 50m
19. A protozoan disease
- a) Sleeping sickness
 b) Kala-azar
 c) Malaria
 d) All of these
20. The combining capacity of an element is called
- a) Valency
 b) Atomicity
 c) Valence electron
 d) Atomic number
21. The light year is the unit of -----
- (a) Time
 (b) Velocity
 (c) Astronomical Distance
 (d) Intensity of Light
22. A particle is moving in a circle of diameter 5m. what is its displacement when it covers one and a half revolutions?
- (a) 5m
 (b) 10m
 (c) 23m
 (d) 0m
23. Starch solution is an example of
- (a) True solution
 (b) Saturated solution
 (c) Suspension
 (d) Colloidal Solution
24. Name the muscular tissue whose cells are cylindrical, branched and uninucleated.
- (a) Striated muscles
 (b) Unstriated muscles
 (c) Voluntary muscles
 (d) Cardiac muscles
25. An emulsion is a colloidal solution formed by mixing
- a.) Two immiscible liquids
 b.) Any one solid and a liquid
 c.) Two miscible liquids.
 d.) Any two gases.
26. Which is the eastern most longitude of India?
- a.) $68^{\circ} 37' E$
 b.) $68^{\circ} E$
 c.) $97^{\circ} 25' E$
 d.) $87^{\circ} 6' E$
27. What is the most common form of democracy in today's world?
- a.) Direct democracy
 b.) Parliamentary democracy
 c.) Representative democracy
 d.) Presidential democracy

28. Which of the following groups of countries formed the Central Powers during the I world War?

- a.) England, Germany, Italy
b.) Austria, Germany, Turkey
c.) Turkey, Germany, France
d.) France, England, Russia

29. Special Secret Police formed by Bolsheviks are called

- a) Duma
b) Cheka
c) Soviets
d) Aurora

30. Tax to be paid directly to the State

- a) Taille
b) Tithe
c) Livre
d) Dues

31. Pace setting schools meant for gifted children in rural areas

- a) Kendriya Vidyalayas
b) CBSE Schools
c) Navodaya Vidyalayas
d) State schools

32. The pattern formed when a river is joined by its tributaries at approximately right angles is called

- a) Dendritic
b) Trellis
c) Rectangular
d) Radial

33. The 'spirit of the Laws' was written by

- a) John Locke
b) J.J. Rousseau
c) Montesquieu
d) Arthur Young

34. The region of the plains where the rivers deposit pebbles in the narrow belt of about 8 to 16 km is

- (a) Bangar
(b) Terai
(c) Bhabar
(d) Khadar

35. Who addressed Gandhiji as 'Father of Nation' for the first time?

- a) Rabindra Nath Tagore
b) Subhash Chandra Bose
c) Jawaharlal Nehru
d) Sardar Vallabhbhai Patel

36. The government of India has decided to observe which month as the National Nutrition Month (NNM) across the country to mark the fight against malnutrition?

- a) October
b) December
c) September
d) August

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37. Which state in India celebrate the Hornbill festival?

- a) Nagaland
b) Arunachal Pradesh
c) Assam
d) Mizoram

38. Which is the first state to welcome river Brahmaputra in India?

- a) Assam
b) Arunachal Pradesh
c) Meghalaya
d) Kolkota

39. Who is known as Indian Bismark?

- a) Sardar Patel
b) Mahatma Gandhi
c) Rajendra Prasad
d) V.P. Savarkar

40. The Indian institution of petroleum is located at-----

- (a) Ankleshwar (b) Basauni (c) Dehradun (d) Digboi

41. The city of skyscrapers is -----

- (a) Washington (b) New York (c) Warsaw (d) Tokyo

42. Which place in India is known for its distinct French culture?

- a) Goa
b) Puthucheri
c) Calicut
d) Surat

43. Which part of India is oldest?

- a.) The Himalayan region
b.) The Peninsular region
c.) The Island region
d.) The Desert region

44. MASTER = OCUVGT :: LABOUR = ?

- a) NCDQWT
b) NDERWT
c) NBECRWT
d) NEDRWT

45. A family went out for a walk. The daughter walked before the father. The son was walking behind the mother and ahead of the father. Who walked last?

- a) Son
b) Father
c) Mother
d) Daughter

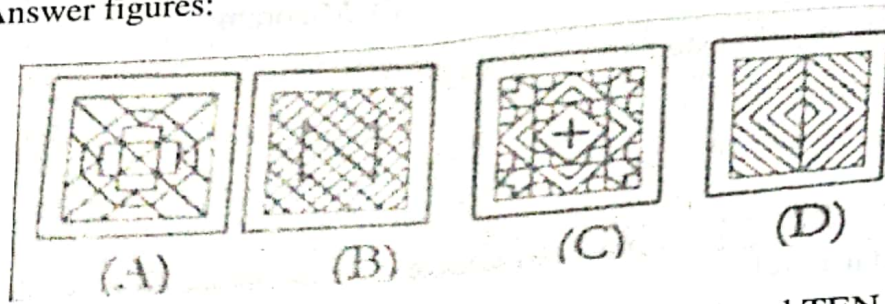
46. In which answer figure is the given figure embedded?

Question figure:



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Answer figures:



47. If FOUR is coded as 6789, FIVE is coded as 6324 and TEN is coded as 145, how will FURNITURE be coded?

- a) 698375797
- b) 689537894
- c) 963851503
- d) 538947876

48. If SQUARE is coded as UQWATE, decode VRKAPGNE?

- a) SQUARE
- b) TRIANGLE
- c) CIRCLE
- d) OCTAGANE

49. If a denotes X, b denotes \div , c denotes + and d denotes - then $8a3c24b12d19=?$

- (a) 70
- (b) 14
- (c) 7
- (d) 31

50. Identify the missing number

8	7	5
10	7	5
9	7	?

- (a) 2
- (b) 5
- (c) 1
- (d) 25

TIE BREAKER QUESTION

51. A body of mass m strikes against a wall with a velocity u and rebounds with the same velocity. The change in momentum of the body

- a) $-2mu$
- b) mu
- c) $-mu$
- d) $2mu$

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