

Section : I - Aptitude and Logical Reasoning

Section : II - Mathematics

ROUGH SPACE

9. A gardener mixes the following amounts of soil additives:

- $\frac{3}{4}$ kg compost
- $1\frac{1}{2}$ kg peat moss
- $\frac{2}{3}$ kg fertilizer

What is the total weight of the mixture?

- (a) $2\frac{5}{6}$ kg (b) $2\frac{7}{12}$ kg (c) $2\frac{3}{4}$ kg (d) $2\frac{11}{12}$ kg

10. A company reports its annual revenue as "Sixty-three crore, eighteen lakh, forty-two thousand, and nine" in the Indian System of Numeration. In the International System of Numeration, how is this number correctly written in words?

- (a) Six hundred thirty-one million, eight hundred forty-two thousand, and nine.
(b) Six hundred thirty-one million, eighty-four thousand, and nine.
(c) Six hundred thirty-eight million, four hundred twenty thousand, and nine.
(d) Six hundred thirty-one million, eight hundred forty-two thousand, and ninety.

11. In a test consisting of 50 questions, a student earns 4 marks for every correct answer and loses 1 mark for every incorrect answer. Unattempted questions carry 0 marks. If the student answers 32 questions correctly and 10 questions incorrectly, what are his/her total marks?

- (a) 98 (b) 108 (c) 118 (d) 128

12. First subtract (+14) from -18 . Then multiply the result by -6 , and finally add (-12) . What is the final value?

- (a) 168 (b) 180 (c) 192 (d) 160

13. On a number line, point A is at -9 and point B is at 15 . How many integers lie strictly between A and B?

- (a) 23 (b) 24 (c) 25 (d) 26

14. What is the sum of all integers strictly between -850 and 849 ?

- (a) 850 (b) -850 (c) 849 (d) -849

15. What is the value of the expression : $3 - [5 - (-4 + 2)] + 6$?

- (a) 0 (b) 2 (c) -2 (d) 4

ROUGH SPACE

Section : III - Science

ROUGH SPACE

25. Which one of the mirror images of the following combination is correct when the mirror is place at 'PQ'?

P
SuNRiSe
Q

- (a) SeNiSe (b) eNiSe (c) eSiNiS (d) eSiNiS

26. Which of the following processes can be used to remove both temporary and permanent hardness?
 (a) Clark's method (b) Addition of washing soda
 (c) Boiling (d) All the above

27. Which of the following terms is not related to underground water?
 (a) Infiltration (b) Aquifer (c) Water table (d) Potable water

28. Which of the following water is suitable for drinking?
 (a) Soft water (b) Demineralized water
 (c) Potable water (d) Distilled water

29. When the water gets converted to ice, its volume
 (a) decreases (b) increases
 (c) remains the same (d) initially decreases and then increases

30. Which of the following salts is responsible for temporary and permanent hardness of water respectively?
 (a) $Mg(HCO_3)_2$ and Na_2SO_4 (b) $Ca(HCO_3)_2$ and $MgCl_2$
 (c) $MgSO_4$ and $Mg(HCO_3)_2$ (d) $CaCl_2$ and $CaSO_4$

31. Purity of oxalic acid can be determined by
 (a) determining the boiling point (b) determining the melting point
 (c) by dissolving it into water (d) None of these

32. Temperature at which pure ice melts is :
 (a) $0^\circ C$ (b) $100^\circ C$ (c) $273^\circ C$ (d) $-5^\circ C$

33. In fractional distillation of petroleum, the liquid with the highest boiling point, condenses in:
 (a) Top most tray (b) Middle tray (c) Lower tray (d) Any tray

ROUGH SPACE

34. A liquid with soluble impurities is purified by:
(a) Filtration (b) Sublimation (c) Cooling (d) Distillation

35. A liquid with insoluble impurities is purified by:
(a) Filtering (b) Cooling (c) Freezing (d) Boiling

36. Which plant part makes seeds?
(a) leaves (b) roots (c) flower (d) the birds

37. Identify the structure:



- (a) Corolla (b) Gynoecium (c) Calyx (d) Androecium

38. This system grows above the soil and is made up of stem, buds, leaves, flowers and fruits.
(a) Stem (b) Shoot system (c) Root system (d) Branches

39. In cactus leaf are modified into
(a) Spines (b) Tendrils (c) Fleshy for storage (d) climber

40. Which plant has fibrous root?
(a) Tulsi (b) Mango (c) Orange (d) Rice

41. From the given list select how many are abiotic in aquatic habitat.

- i. Soil
- ii. Fishes
- iii. Whale
- iv. Plants
- v. Rocks
- vi. Water

- (a) 2 (b) 3 (c) 4 (d) 5

ROUGH SPACE

42. Which of the following is not a terrestrial habitat ?
(a) Forest (b) Desert (c) Grassland (d) Pond
43. What is an increase in the amount of living material and/or the formation of new structures?
(a) Reproduction (b) Development (c) Homeostasis (d) Growth
44. A change in an organism's surroundings that causes it to react is called
(a) development (b) a stimulus (c) a response (d) energy
45. What is the habitat of camel ?
(a) desert (b) water (c) none of the above (d) forest

ROUGH SPACE
