

UNIFIED CYBER OLYMPIAD - UC 326

Solutions for class: 4

Mental Ability

- 1. **(D)** First multiple of 12 = 12Fifth multiple of 12 = 60Sum = 72
- 2. **(A)** Cards with Ravi = 450 Cards with Hari = 450 128 = 322 Ravi must give 213 Cards to Hari so that Hari will have 298 cards more than Ravi.
- 3. **(A)** $= 819 \div 7 = 117$ $= 117 \div 9 = 13$
- 4. **(B)** From the product it is clear that, when a number is multiplied by 3, the units digit is the same number. Which is possible only in the case of 5. Hence the number AAA must be 555. and $555 \times 3 = 1665$.
 - \Rightarrow A represents the digit 5.
- 5. **(D)** No. of cakes in each box = $\frac{278}{12}$ = 23.166... ≈ 24 .
- 6. **(C)** Fraction of remaining

marbles with karan $= 1 - \frac{2}{5} = \frac{3}{5}$

Marbles with karan at first = $90 \times \frac{5}{3}$

$$= 30 \times 5 = 150$$

- 7. **(A)** $\frac{5}{12}$, $\frac{2\times4}{3\times4}$, $\frac{3\times3}{4\times3}$, $\frac{4\times4}{3\times4}$
 - $\frac{5}{12}$, $\frac{8}{12}$, $\frac{9}{12}$, $\frac{16}{12}$
 - i.e., $\frac{5}{12}$, $\frac{2}{3}$, $\frac{3}{4}$ and $\frac{4}{3}$ is the increasing order.

8. **(C)** A C E G I K

from the figure CD $\Big|\Big|$ GH and EF $\Big|\Big|$ KL, but since the second pair is not in the options, option (C) is true.

- 9. **(A)** $54.6 \div 2 = 27.3 \div 3 = 9.1$
- 10. **(A)** 1: 00 -2 h = 23: 00
- 11. (D) Multiples of 9 are

9, 18, 27, 36, 45, 54, 63

The circled ones are odd. They are 4 in number.

- 12. **(D)** $5\frac{2}{3} = \frac{17 \times 6}{3 \times 6} = \frac{102}{\boxed{18}}$
 - .. The missing denominator is 18
- 13. **(C)** Distance between 1 & 2 trees = 9 m Distance between 1 & 3 trees = $9 \times 2 = 18$ m Distance between 1 & 4 trees = $9 \times 3 = 27$ m Distance between 1 & 5 trees = $9 \times 4 = 36$ m

Distance between 1 & 100 trees = $9 \times 99 = 901 \text{ m}$

14. **(B)** $\frac{1}{4}$ of water becomes $\frac{1}{2}$ filled after adding 24 *I*.

Hence, capacity of $\frac{1}{4}$ tank is 24/ and capacity of the tank = 24 × 4 = 96 /.

15. **(D)** A turtle has 4 legs and a duck has 2 legs.

By trial and error,

we can find that 8 ducks \times 2 = 16 legs

10 turtles \times 4 = 40 legs

Total = 56 legs

Hence, there are 8 ducks.

Reasoning

16. **(A)**
$$5 + 9 = 14$$
, $16 + 10 = 26$

and
$$8 + 1 = 9$$

∴ The missing number is 1.

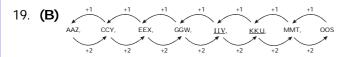
17. **(C)** $3 \times 2 \times 2 = 12$

$$1 \times 3 \times 9 = 27$$

Similarity, $5 \times 0 \times 4 \times 0$

∴ The missing number in the last triangle

18. **(Del)**

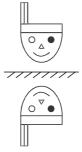


: The missing term in the series are IIV, KKU.

- 20. (A) The shape outside is reduced in size, moved to the top, flipped horizontally and is shaded. The shape inside is enlarged, moved to the bottom and is unshaded.
- 21. **(D)** The shape in option (D) is made up of four circles, while the other three shapes consists of three circles.
- 22. (A) In each pair the number of sides in the second image is one less than the first image and the dot inside the inner shape is moving from one end to another end.
- 23. **(B)** The shapes in the first figure, over lap at the centre in the second figure. So. the missing figure in the second pair is given in option (B).
- 24. (A) All the options are rotated with an angle of
- 25. (A) The inner lines in the first two columns are placed in the third column. Hence, the missing shape in the grid is option (A).
- 26. **(C)** The pattern is reflecting after every four

figures, hence the next figures should be same as option (C).

27. **(A)**



28. **(D)** Of the given option, the tile given in option (D), is not used in making the given design.

29. **(A)** $1 \times 2 = 2$

$$3 \times 2 = 6$$

$$2 \times 2 = 4$$

$$2 \times 2 = 4$$

$$6 \times 2 = 12 \qquad 4 \times 2 = 8$$

$$4 \times 2 = 8$$

$$4 \times 2 = 8$$

$$4 \times 2 = 8$$
 $12 \times 2 = 24$ $8 \times 2 = 16$

$$8 \times 2 = 16$$

Similarly
$$5 \times 2 = 10$$
, $10 \times 2 = 20$ and $20 \times 2 = 40$

.: The missing number is 20

30. **(C)** B R A I N \downarrow \downarrow \downarrow \downarrow % ÷ # ×



$$\Rightarrow R E N T$$

$$\downarrow \downarrow \downarrow \downarrow \downarrow$$

$$% + \times $$$

 \therefore The code for RENT is % + \times \$.

Computers

- 31. **(D)**
- 32. **(B)**
- 33. **(A)**

- 34. **(B)**
- 35. **(D)**
- 36. **(B)**

- 37. **(B)**
- 38. **(B)**
- 39. **(C)**

- 40. **(C)** 43. **(D)**
- 41. **(B)** 44. **(B)**
- 42. **(D)** 45. **(B)**

English

- 46. **(C)**
- 47. **(A)**
- 48. **(C)**

- 49. **(A)**
- 50. **(C)**