

**UNIFIED COUNCIL**

Foundation for success

**UNIFIED CYBER OLYMPIAD (UPDATED)**

CLASS - 6
Question Paper Code : 30119

KEY

1. D	2. C	3. B	4. B	5. A	6. B	7. D	8. C	9. B	10. D
11. A	12. A	13. C	14. B	15. D	16. B	17. A	18. C	19. D	20. A
21. C	22. A	23. B	24. A	25. A	26. D	27. A	28. C	29. B	30. C
31. C	32. B	33. B	34. C	35. A	36. A	37. A	38. D	39. A	40. D
41. D	42. A	43. D	44. D	45. B	46. D	47. A	48. C	49. C	50. A

SOLUTIONS**MENTAL ABILITY**

01. (D) Cost of each plot =

$$\text{Rs } \frac{61,55,30,766}{97}$$

$$\text{Rs} = 63,45,678$$

02. (C) Greatest possible length to measure 7 m, 3 m 85 cm, 12 m 95 cm

Convert to cm :

700 cm, 385 cm, 1295 cm

$$\text{HCF}(700, 385, 1295) = 35 \text{ cm}$$

03. (B) LCM of 72, 108, 2100

$$\text{LCM} = 37800$$

$$72 = 2 \times 2 \times 2 \times 3 \times 3 = 2^3 \times 3^2$$

$$108 = 2 \times 2 \times 3 \times 3 \times 3 = 2^2 \times 3^3$$

$$2100 = 2 \times 2 \times 3 \times 5 \times 5 \times 7$$

$$= 2^2 \times 3^1 \times 5^2 \times 7^1$$

$$\text{LCM}(72, 108, 2100) = 37800$$

04. (B) Total weight the container can hold

$$6\frac{3}{8} \text{ kg} = \frac{51}{8} \text{ kg}$$

$$5\frac{1}{2} \text{ kg} = \frac{11}{2} \text{ kg}$$

$$2\frac{3}{4} \text{ kg} = \frac{11}{4} \text{ kg}$$

$$9\frac{3}{4} = \frac{39}{4} \text{ kg}$$

Find a common denominator *8)

$$\frac{51}{8}, \frac{11}{2} = \frac{44}{8}, \frac{11}{4} = \frac{22}{8}, \frac{39}{4} = \frac{78}{8}$$

$$\text{Total } = \frac{51+44+22+78}{8} = \frac{195}{8}$$

$$= 24\frac{3}{8} \text{ kg}$$

05. (A) $81657.32 - 9999 = 71,658.32$

06. (B) Step 1: Add $1059 + (-89) + (-129) + 2946$
 $= (1059 - 89 - 129 + 2946)$
 $= 1059 - 218 + 2946 = 841 + 2946 = 3747$
Step 2: Subtract -5228 from 3787
 $= 3787 - (-5228) = 3787 + 5228 = 9015$

07. (D) If $x = 12$ then $12 + 9 = 21$

08. (C) We use the identity:
 $a^3 + b^3 + c^3 - 3abc$
Substitute:
 $-7^3 + 3^3 + (-10)^3 - 3(7)(3)(-10) - 343 + 27 - 1000 - 3(7)(3)(-10) - 343 + 27 - 1000$
Ans.: 0

09. (B) If no three points are collinear, the number of line segments from 5 points
A, B, C, D are AB, AC, AD, AE, BC, BE, CD, CE, DE ie 10 lines segments.

10. (D) Length of rectangular field = 60 m
Breadth = half of length = $60 + 2 = 30$ m
Area of rectangle = length \times breadth
So, Area = $60 \times 30 = 1800$ square meters

11. (A) Nandan performance is the best.

12. (A) Weight per metre

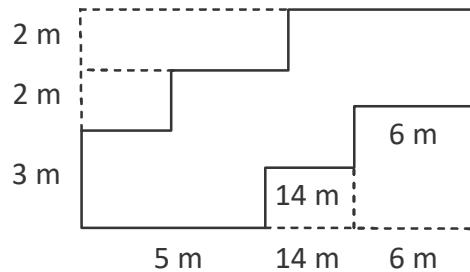
$$\frac{85.5 \text{ kg}}{22.5 \text{ metres}} = 3.8 \text{ kg / metre}$$

Weight for 5 metre

$$5 \times 3.8 \text{ kg} = 19 \text{ kg}$$

13. (C) The pitcher $\frac{3}{4}^{\text{th}}$ is full ie 75% full

$$\therefore \text{Each cup received juice} = \frac{75\%}{5} = 15\%$$



14. (B)

$$\text{Length} = (5 + 14 + 6) \text{ m} = 25 \text{ m} \text{ & Breadth} = (3 + 2 + 2) \text{ m} = 7 \text{ m}$$

\therefore Perimeter

$$= 2(l + b) = 2(25 + 7) \text{ m} = 64 \text{ m}$$

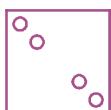
$$\begin{aligned} 15. (D) \quad \text{LHS} &= 123 \times 7 \times 99 - 3491 \times 123 + 123 \times 5 \\ &\times 567 + 123 \times 3 \times 321 \\ &= 123 \times 693 - 3491 \times 123 + 123 \times 2835 + \\ &123 \times 963 \\ &= 123 (693 - 3491 + 2835 + 963) \\ &= 123 \times 1000 \\ &= 1,23,000 \end{aligned}$$

REASONING

16. (B) in all other figures, the two rectangles don't intersect each other.

17. (A) Second number is 200 less than the first number in both the pairs.

18. (C)



19. (D)



20. (A) Rule:

$$(2 \times 3) - 1 = 5$$

$$(5 \times 3) - 1 = 14$$

$$(14 \times 3) - 1 = 41$$

$$\text{Similarly } 41 \times 3 - 1 = 122$$

21. (C)

Reversing only the first 13 letters, we obtain the following letter-series:

M L K J I H G F E D C B A N O P Q R S T U
V W X Y Z

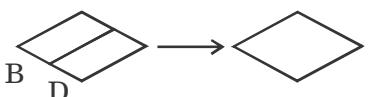
Clearly, there are 14 letters between K and R in the above series.

22. (A)

The name of a game is 'KEYBOARD'. The first and last letters are 'K' and 'D' respectively.

23. (B)

The figure on the left can be formed by joining B and D as shown below.



24. (A)

$$27 \times 3 \div 9 = 9 \text{ (P)}$$

25. (A)

The following changes are observed :

- (i) Striped region shifts to the next region in ACW direction.
- (ii) The small filled circle moves to the alternate region in ACW direction.
- (iii) The arrow moves to the next time in ACW direction.

26. (D)

The inner figure is an inverted form of the larger figure.

27. (A)

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

The alphabetical number for R is 18, A is 1 and M is 13.

$$\text{Code for RAM} = 18 + 1 + 13 = 32$$

$$\text{Code for MAN} = 13 + 1 + 14 = 28$$

Hence, the code for MAN is 28.

28. (C)

Republic day is on 26th of January. Number of days in the month of January is 31. As 26th falls on saturday, 14th of next month will be as of 31st January. i.e., thursday.

29. (B)

The figure rotates 90° CW.

30. (C)

The pattern increasing by +1, +2, +3, +4, +5

COMPUTERS

31. (C)

Microcomputers are designed for use by one person, so they are called personal computers (PCs).

32. (B)

You can add time to slides using the Rehearse Timings button, which helps set how long each slide shows.

33. (B)

Pressing Ctrl + M quickly inserts a new slide in PowerPoint

34. (C)

An ISP is a company that provides internet access to users.

35. (A)

Processing speed is measured by how many instructions a computer can execute per second.

36. (A)

Ctrl + Z is used to undo the last action.

37. (A)

A hard disk contains several circular disks called platters.

38. (D)

A standard 3.5-inch floppy disk stores 1.44 MB of data.

39. (A)

Lotus 1-2-3 was an early spreadsheet program used before MS-Excel.

40. (D)

Design templates provide ready-made designs for slides.

41. (D)

Double-clicking the right boundary of a column heading automatically adjusts the width to fit the longest content.

42. (A) Plus sign → Make the cell active (iv)
 Clicking a cell with the plus cursor activates the cell.

(B) Arrow pointer → Select an option (iii)
 The arrow pointer is used to choose menu options or commands.

(C) I-beam → Enter data (i)
 The I-beam cursor appears when typing data inside a cell.

(D) Down arrow → Select entire column (ii)
 Clicking the column header (down arrow) selects the whole column.

Hence, Option (A) is correct.

43. (D) A website can contain HTML documents, images, and audio/video files.

44. (D) The @ symbol was first used in 1971 to separate the user name and computer name in e-mail addresses

45. (B) Bing is the search engine developed and owned by Microsoft.
 The other options belong to different companies:

- Metacrawler – a meta-search engine
- Google – owned by Google
- AltaVista – an old search engine, not Microsoft

ENGLISH

46. (D) Honesty is an abstract noun and does not have a plural form.

47. (A) Both slowly and carefully describe how the action was done, so they are adverbs.

48. (C) Scarce means in short supply; plentiful means available in large quantity.

49. (C) With neither...nor, the verb agrees with the nearest noun (players), so it should be were, not was.

50. (A) A group is treated as a singular collective noun, so it takes is.