



UNIFIED COUNCIL

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UNIFIED CYBER OLYMPIAD - UC335 (UPDATED)

Solutions for class : 6

Mental Ability

1. (B) $P + A = 15 \times 2 = 30$
 $P = 30 - 16 = 14$
2. (D) The ratio of areas of two squares where the diagonal of one square is twice the length of other is
$$\frac{(2d)^2}{d^2} = \frac{4d^2}{d^2} = 4 : 1$$
3. (B) $\frac{a}{b} : \frac{1}{27} = \frac{2}{11} : \frac{5}{9} \Rightarrow \frac{a}{b} = \frac{2}{11} \times \frac{9}{5} \times \frac{1}{27} = \frac{2}{165}$
4. (C) Sum of five consecutive positive integers is A.
 $\Rightarrow x + x + 1 + x + 2 + x + 3 + x + 4 = A$
 $5x + 10 = A$
 $5x = A - 10$
Sum of next five consecutive integers
 $x + 5 + x + 6 + x + 7 + x + 8 + x + 9$
Sum = $5x + 35$
 $= A - 10 + 35$
 $= A + 25$
5. (C) Distance Tanuj walked in two days = distance walked on Monday + distance walked on Tuesday.
 $= 8 \text{ km } 620 \text{ m} + 7 \text{ km } 50 \text{ m}$
 $= 15 \text{ km } 670 \text{ m} = 15.670 \text{ km}$
6. (D) In 1 week I drank 5 glasses of Pepsi
In 4 weeks - 20 glasses.
I drank 22nd glass on 2nd day of 5th week i.e., 30th day from Dec 3 i.e., on Jan 1st.
7. (A) $\frac{110}{100} \times 1 = 1.1 \text{ km}$

- $\frac{110}{100} \times 1.1 = 1.21 \text{ km}$
- $\frac{110}{100} \times 1.21 = 1.331 \text{ km}$
 $1 + 1.1 + 1.21 + 1.331 = 4.641 \text{ km}$
8. (C) Given three fractions $\frac{3}{5}, \frac{3}{4}, \frac{2}{3}$
L.C.M. of 3, 4, 5 = 60
 $= \frac{36}{60}, \frac{45}{60}, \frac{40}{60}$
Difference between largest and smallest fraction is
 $\frac{45}{60} - \frac{36}{60} = \frac{9}{60} = \frac{3}{20}$
9. (A) Area of rectangular lawn = $36 \text{ m} \times 27 \text{ m} = 972 \text{ m}^2$
One bag of fertilizer covers 360 m^2
Number of bags to cover total area = $\frac{972}{360} = 2.7$.
Rounding off 2.7 to nearest decimal is 3.
So, 3 bags are to be purchased.
10. (B) ₹ $2 \times 5 = ₹ 10$ in left pocket.
₹ $5 \times 2 = ₹ 10$ in right pocket.
11. (C) Area of land needed to yield 2250 quintals is
 $\frac{2250 \times 7}{280} = \frac{15750}{280} = 56.25 \text{ acres}$.
12. (A) A complete wheel has 360 degrees.
The wheel has 36 spokes.
36 spokes has 360 degrees,

∴ The angle between pair of adjacent spokes =

$$\frac{360}{36} = 10$$

13. (A) $76 - 51 = 25$

14. (C) Change mother received = ₹(10 - 3 - j)
= ₹(7 - j)

15. (C) H.C.F. of two numbers is 30

So, the required numbers should be multiple of 30
product of two numbers is 5400

$$30 \times 180 = 5400$$

$$60 \times 90 = 5400$$

∴ So, possible pair of numbers are 2.

Reasoning

16. (B) Each of the symbols move by one step in order.

17. (D) We have to look for vowel-vowel-consonant combination. Underlined letter given below are the required vowels.

CUBEDEDBEBUCDBCDBDUBCCBED



19. (D) Number of sides is five.

20. Delete

21. (C) $T \rightarrow 20$ $(2 + 0)$ is 2

$I \rightarrow 9$ (9) is 9

$G \rightarrow 7$ (7) is 7

$E \rightarrow 5$ (5) is 5

$R \rightarrow 18$ $(1 + 8)$ is 9

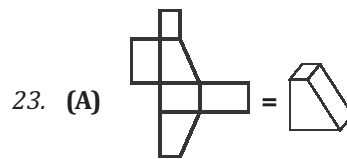
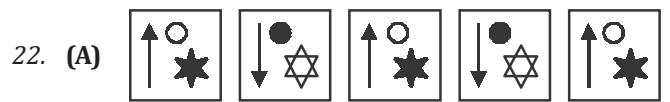
Similarly

$L \rightarrow 12$ $(1 + 2)$ is 3

$I \rightarrow 9$ (9) is 9

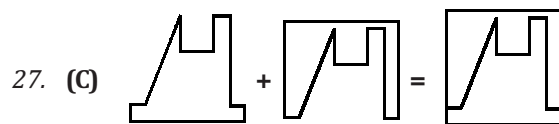
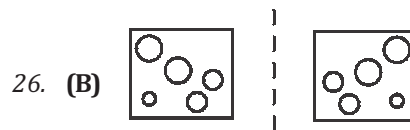
$O \rightarrow 15$ $(1 + 5)$ is 6

$N \rightarrow 14$ $(1 + 4)$ is 5



24. (D) $C \xrightarrow{+2} 5$ $E \xrightarrow{+3} 8$ $G \xrightarrow{+2} 9$ $I \xrightarrow{+0} 0$
 $(3+2)$ $(5+3)$ $(7+2)$ $(9+0)$

25. (A) Sum of the digits is 9 except for 38.

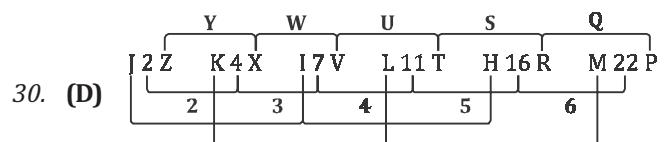


28. (A) $C \rightarrow E$, $A \rightarrow E$, $T \rightarrow V$

29. (B) $(11 + 5 + 4) - (3 + 1) = 16$

$(14 + 9 + 9) - (6 + 8) = 18$

$(12 + 3 + 12) - (6 + 7) = 14$



Computers

31. (A) 32. (C) 33. (A) 34. (A) 35. (A)

36. (D) 37. (D) 38. (B) 39. (C) 40. (D)

41. (A) 42. (D) 43. (D) 44. (C) 45. (B)

English

46. (C) 47. (D) 48. (B) 49. (D) 50. (C)

The End