



UNIFIED COUNCIL

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UNIFIED CYBER OLYMPIAD

Solutions for Sample Questions

class : 7

Mental Ability

- (C) $\frac{1}{2015} + \frac{2}{2015} + \frac{3}{2015} + \dots + \frac{2014}{2015}$
 $\Rightarrow \frac{1+2+3+4+\dots+2014}{2015}$
 $\Rightarrow \frac{2014(2014+1)}{2 \times 2015} = \frac{2014}{2} = 1007$
- (B) Since $a : b = 3 : 5$, then for some number x , $a = 3x$ and $b = 5x$; and since $c : b = 2 : 1$, then $c = 2b = 10x$. Then, $3x + 5x + 10x = 180$
 $\Rightarrow 18x = 180$
 So, $x = 10$ and $c = 10x = 10(10) = 100$
 Hence, the largest angle is **100°**.
- (B) Pooja = $(x + 3)$ years
 Ashish = $(x + 3) - 5$
 $= (x - 2)$ years
 Total age now = $x + (x + 3) + (x - 2)$
 $= (3x + 1)$ years
- (A) 'p' divides the given figure into two identical halves. So, it is a line of symmetry.
- (D) ₹ 120 = 125%
 $25\% \text{ profit} = \frac{120}{125} \times 25 = ₹ 24$
 $25\% \text{ loss} = \frac{120}{75} \times 25 = ₹ 40$
 Overall loss = ₹ 40 - ₹ 24 = ₹ 16

Reasoning

- (B) The second figure in each pair is obtained by turning the big and the medium curves in the clockwise direction and the small curve in the anticlockwise direction by 90°.
- (C)
- (B) By combining the 3 parts (top and bottom left figures) we get, the right bottom corner figure.
- (B)

A7*

 LP2N

S3@

 HK2P

D8Δ

 Hence required digits are **3**.
- (D)

1				
2				
	12		3	4
		8	9	
		10	11	
	5	6	13	7

 $1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 \rightarrow 11$
 $8 + 9 + 10 + 11, 12 + 3 + 4 + 8 + 9 + 10 + 11 + 5 + 6 + 13$
 $12 + 3 + 8 + 9 + 10 + 11,$
 $8 + 9 + 10 + 11 + 6 + 13 \rightarrow 4$
 \therefore There are **15 squares** in the given figure.

Computers

11. (A) Executing two or more programs simultaneously in a single CPU is called ***multitasking***.
12. (D) ***2B43*** is an invalid numeric variable.
13. (C) In railway stations and banks, ***mainframes*** are used.
14. (A) RAM is built from ***semi-conductors***.
15. (C) The output of Q-basic program will ***print sum of the integers from 1 to 10***.

English

16. (D)
We saw many interesting birds at the bird sanctuary
P Q R S
17. (D) Wrath means ***anger***.
18. (A) ***Separate*** is the correct spelling
19. (D) Masculine gender for filly is ***colt***.
20. (C) Library is a good place to ***study*** because it is so ***quiet***.



