Class – VII

Mental Ability

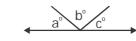


Find the sum of  $\frac{1}{2015} + \frac{2}{2015} + \frac{3}{2015} + \dots + \frac{2014}{2015}$ 

- (A) 2014
- (B) 1
- (C) 1007
- (D) 2015



In the given figure, a:b=3:5 and c:b=2:1. What is the measure of the largest angle?



- (A) 110°
- (B) 100°
- (C) 80°
- (D) 130°

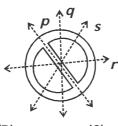


Rishi is x years old. Pooja is 3 years older than Rishi and 5 years older than Ashish. Find their total age.

- (A) 3(x + 1) years
- (B) (3x + 1) years
- (C) (x + 10) years
- (D) 2(x + 8) years



Which of the following dotted lines is a line of symmetry for the given figure?



- (A) p
- (B) q
- (C) r
- (D) s



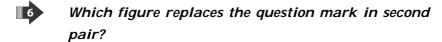
Priya sold two different bags for ₹ 120 each. She made a profit of 25% on the first bag but incurred a loss of 25% on the second bag. How much was her overall profit or loss for the sale of the bags?

- (A) Profit of ₹ 18
- (B) Loss of ₹ 40
- (C) Profit of ₹ 24
- (D) Loss of ₹ 16



## Class - VII

Reasoning





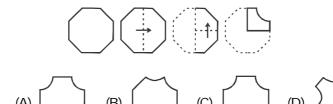




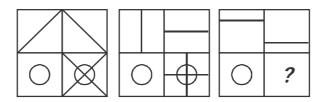




Which of the following figure resembles the given paper when unfolded?



Which is the missing part in the third figure?















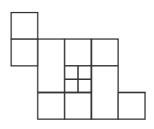
In the following arrangement how many such digits are there, each of which is immediately preceded by a letter and immediately followed by a symbol?

A 7 \* L P 2 N S 3 @ H K 2 P D 8 A

- (A) 4
- (B) 3
- (C) 2
- (D) 1



How many squares are there in the given figure?



- (A) 11
- (B) 13
- (C) 14
- (D) 15

Class - VII

Computers



What do you mean by executing two or more programs simultaneously in a single CPU?

- (A) Multitasking
- (B) Timesharing
- (C) Multiprogramming
- (D) Multiprocessing



Which of the following is an INVALID numeric variable in Q-basic?

- (A) T24
- (B) A
- (C) M2
- (D) 2B43



In banking, railway stations etc., which computers are used?

- (A) Mini Computers
- (B) Micro Computers
- (C) Main Frames
- (D) Super Computers





### Which of the following is used to built RAM?

- (A) Semi-conductors
- (B) Vacuum Tubes
- (C) Super-conductors
- (D) Transistors



#### What is the output of given Q-basic program?

Let S = O
For C = 1 to 10
Let S = S + C
Next C
Print S

- (A) The letter S is printed.
- (B) The integers from 1 to 10 are printed.
- (C) The sum of the integers from 1 to 10 is printed.
- (D) An error message is displayed.

## Class – VII

English



Which part of the given sentence has a grammatical error in it?

We saw	much interesting	birds at	the bird sanctuary.
P	Q	R	S

- (A) R
- (B) P
- (C) S
- (D) Q



#### What does 'WRATH' mean?

- (A) Judgment
- (B) Opinion
- (C) Sorrow
- (D) Anger



#### Identify the MISSPELT word.

- (A) Seperate
- (B) Personnel
- (C) Repetition
- (D) License

CLASS: VII





## What is the masculine gender for 'FILLY'?

- (A) Cockeral
- (B) Gander

(C) Drake

(D) Colt



Which of the following pair of words can replace the blanks?

Library is a good place to \_\_\_\_\_ because it is so \_\_\_\_\_.

- (A) read, open
- (B) learn, intelligent
- (C) study, quiet
- (D) eat, serene





## UNIFIED CYBER OLYMPIAD

# Solutions for Sample Questions class: 7

## **Mental Ability**

1. (C) 
$$\frac{1}{2015} + \frac{2}{2015} + \frac{3}{2015} + \dots + \frac{2014}{2015}$$

$$\Rightarrow \frac{1 + 2 + 3 + 4 + \dots + 2014}{2015}$$

$$\Rightarrow \frac{2014(2014 + 1)}{2 \times 2015} = \frac{2014}{2} = 1007$$

2. **(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) = 100Hence, the largest angle is **100°**.

- 3. **(B)** Pooja = (x + 3) years

  Ashish = (x + 3) 5= (x 2) years

  Total age now = x + (x + 3) + (x 2)= (3x + 1) years
- 4. **(A)** '**p** divides the given figure into two identical halves. So, it is a line of symmetry.
- 25% profit =  $\frac{120}{125} \times 25 = 24$

**(D)** ₹ 120 = 125%

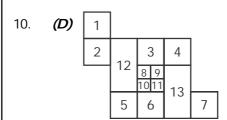
5.

25% loss = 
$$\frac{120}{75}$$
 × 25 = ₹ 40

Overall loss = ₹ 40 - ₹ 24 = ₹ **16** 

## Reasoning

- 6. **(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°.
- 7. **(C)**
- 8. **(B)** By combining the 3 parts (top and bottom left figures) we get, the right bottom corner figure.
- 9. **(B)** A7\* LP2N S3@ HK2P D8 $\triangle$  Hence required digits are **3**.



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,

: There are 15 squares in the given figure.

 $8 + 9 + 10 + 11 + 6 + 13 \rightarrow 4$ 

## **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)* 

- 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 <u>study</u> because it is so <u>quiet</u>.

