

## WORKSHEET CLASS - VII

### OLYMPIAD OF MATHEMATICS (2017-18)

Q1. Evaluate:  $| 14 - [ 3 + 15 \{ 15 \times 3 - 2 ( 13 - 25 ) \} ] |$

- (a) 1024
- (b) -1024
- (c) 1038
- (d) -1038
- (e) None of these

Q2. If we multiply together 15 negative integers and 10 positive integers then the product will be a :

- (a) positive integer
- (b) negative integer
- (c) natural number
- (d) whole number
- (e) none of these

Q3. What least number must be added to 1712 to get a number exactly divisible by 14?

- (a) 3
- (b) 5
- (c) 12
- (d) 10
- (e) None of these

Q4. The ratio of copper and zinc in an alloy is 8:7. If the weight of the copper in the alloy is 1012 Kg, the weight of zinc in it is:

- (a) 9.8 Kg
- (b) 0.98 Kg
- (c) 98 Kg
- (d) 1.26 Kg
- (e) None of these

Q5. If  $\sqrt{1849} = 43$ , the value of  $\sqrt{18.49} + \sqrt{0.1849} + \sqrt{0.001849}$  is:

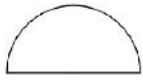
- (a) 4.708
- (b) 4.773
- (c) 4.760
- (d) 4.0687
- (e) None of these

Q6. The present ages of Peter & Jony are in the ratio of 4:3, four years later, their ages will be in the ratio of 6:5 What is their present ages?

- (a) 8 and 9 years

- (b) 6 and 9 years
- (c) 8 and 6 years
- (d) 5 and 9 years
- (e) None of these

Q7. Find perimeter of the following figure which is a semicircle including its diameter 10 cm.



( Take  $\pi = 3.14$  )

- (a) 25m
- (b) 20m
- (c) 25.7m
- (d) 20.7m
- (e) None of these

Q8. Radii of two concentric circles are 4cm and 3cm respectively. Find the area enclosed between two circles.

- (a) 98 cm<sup>2</sup>
- (b) 199 cm<sup>2</sup>
- (c) 22 cm<sup>2</sup>
- (d) 99 cm<sup>2</sup>
- (e) None of these

Q9. Find the value of x so that  $2^{2x+1} = 4^{2x-1}$

- (a)  $\frac{3}{2}$
- (b) 1
- (c) 2
- (d)  $\frac{1}{2}$
- (e) None of these

Q10. Sofia started walking straight towards South. She walked a distance of 15m and then took a left turn and walked a distance of 30m. Then she took a right turn and walked a distance of 15m again. Sofia is facing in which direction?

- (a) North – East
- (b) South
- (c) North
- (d) South – West
- (e) None of these

Q11. Find the multiplicative inverse of  $(7 \times \frac{1}{12})$

- (a)  $\frac{1}{7} \times \frac{1}{12}$

(b)  $7 \times \frac{1}{12}$

(c)  $\frac{1}{7} \times 12$

(d)  $\frac{-1}{7} \times \frac{1}{12}$

(e) None of these

Q12. The value of A such that

$$\begin{array}{r} 3 \ 1 \ A \\ +1 \ A \ 3 \\ \hline 5 \ 0 \ 1 \\ \hline \end{array}$$

(a) 7

(b) 8

(c) 9

(d) 0

(e) None of these

Q13. Solve for x:  $\frac{x+2}{3} - \frac{x+1}{5} = \frac{x-3}{4} - 1$

(a) 15

(b) 17

(c) 19

(d) 21

(e) None of these

Q14. Marked price of a machine is ₹ 9700 and VAT is 6%. The S.P. of machine is:

(a) ₹ 10000

(b) ₹ 10282

(c) ₹ 9872

(d) ₹ 9527

(e) none of these

Q15. The value of 14% of  $857 - 5.6 \times 21.425$  is:

(a) 0

(b) 36

(c) 60

(d) 48

(e) None of these

Q16. The ratio between two quantities is 7:9. If the first quantity is 511 then find the other quantity.

(a) 655

(b) 555

- (c) 657
- (d) 656
- (e) None of these

Q17. A field is in the form of a right triangle with hypotenuse 10m and one side 8m. Find the area of the field.

- (a)  $22\text{m}^2$
- (b)  $23\text{m}^2$
- (c)  $24\text{m}^2$
- (d)  $25\text{m}^2$
- (e) None of these

Q18. Which one of the following rational number has non terminating and non-repeating decimals.

- (a)  $\frac{75}{64}$
- (b)  $\frac{14}{230}$
- (c)  $\frac{35}{128}$
- (d)  $\frac{33}{640}$
- (e) None of these

Q19. What least value must be given to A so that the number 5087A56 is divisible by 8?

- (a) 8
- (b) 7
- (c) 5
- (d) 6
- (e) None of these

Q20. The sum of the digits of a two digit number is 10. If the order of digit is reversed, the number is decreased by 54. Find the number.

- (a) 73
- (b) 82
- (c) 91
- (d) 64
- (e) None of these

Q21. In a population of 1000, 640 are males. Find the percentage of females.

- (a) 36%
- (b) 40%
- (c) 32%
- (d) 48%
- (e) None of these

