WORKSHEET CLASS - VII

OLYMPIAD OF MATHEMATICS (2017-18)

Q1. Evaluate: I 14 – [3 + 15 { 15 X 3 – 2 (13 – 25) }] I

(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 π = 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^2
(b) 199 cm^2
(c) 22 cm^2
(d) 99 cm^2
(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 X $\frac{1}{12}$)

(a) $\frac{1}{7}$ X $\frac{1}{12}$

(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

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

is

(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 X 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) $22m^2$

(b) $23m^2$

(c) $24m^2$

(d) $25m^2$

(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