INTERNATIONAL TALENT SEARCH EXAMINATION 2024 - 2025

Class – 8
Set – D

Question1: *If the angles of a triangle are in the ratio 2 : 3 : 4, then the difference between the greatest and smallest angles is*

- a) 40°
- b) 20°
- c) 10°
- d) 30°

Question2: The consecutive multiples of 3 whose sum is 51 are

- a) 20, 31
- b) 40, 11
- c) 24, 27
- d) 25, 26

Question3: *If the digit 1 is placed after a two digit number whose tens digit is 't' and units digit is 'u', the new number is*

- a) t + u + 1
- b) none
- c) 10t + u + 1
- d) 100t + 10u + 1

Question4: *The quadrilateral formed by joining the mid points of the sides of a quadrilateral PQRS, taken in order, is a rectangle if*

- a) PQRS is a rectangle
- b) diagonals of PQRS are perpendicular
- c) PQRS is a parallelogram
- d) diagonals sof PQRS is equal

Question5: *If angles P, Q, R and S of the quadrilateral PQRS, taken in order, are in the ratio 3: 7 : 6 : 4 then PQRS is a*

- a) parallelogram
- b) rhombus
- c) trapezium

- d) kite

Question6: *If PQ and RS are two perpendicular diameters of a circle, then PQRS is a*

- a) square
- b) rectangle
- c) trapezium
- d) rhombus but not square

Question7. The sum of the angles in a quadrilateral is equal to _____

(A) 2 right angles
(B) 3 right angles
(C) 4 right angles
(D) 360 right angles

Question8. If the lengths of two diagonals iof a rhombus are 12 cm and 16 cm, then the length of each side of the rhombus is
(A) 10 cm
(B) 14 cm
(C) cannot be determined
(D) none of these

Question9. If one of the angle measures more than 180° in a quadrilateral, then that is known as
(A) a parallelogram
(B) a concave quadrilateral
(C) a convex quadrilateral
(D) a trapezium

Question10. A quadrilateral which has exactly one pair of parallel sides is called
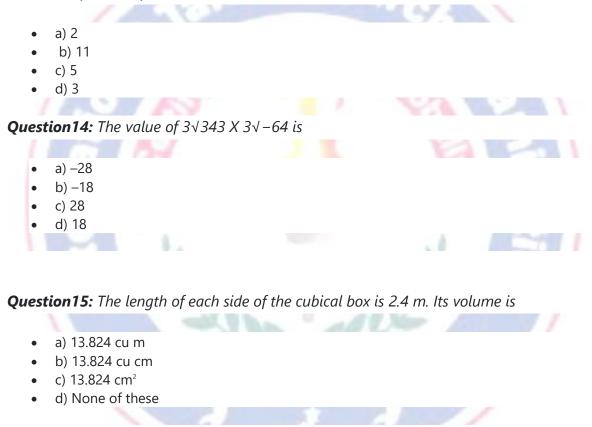(A) a parallelogram
(B) a rectangle
(C) a trapezium
(D) a kite

Question11: *Which of the following is a Pythagorean triplet?*

- a) (3, 4, 7)
- b) (5, 12, 18)
- c) (6, 8, 10)
- d) none of these

Question12: *The value of 1 + 3 + 5 + 7 + 9 + ... + 25 is*

- a) 225
- b) 625
- c) 196
- d) 169

Question13: *The smaller number by which 396 must be multiplied so that the product becomes a perfect square is*

- a) 2
- b) 11
- c) 5
- d) 3

Question14: *The value of 3√343 X 3√−64 is*

- a) −28
- b) −18
- c) 28
- d) 18

Question15: *The length of each side of the cubical box is 2.4 m. Its volume is*

- a) 13.824 cu m
- b) 13.824 cu cm
- c) 13.824 cm^2
- d) None of these

Question16: *The cube of a number is 8 times the cube of another number. If the sum of the cubes of numbers is 243, the difference of the numbers is*

- a) 3
- b) 6
- C) 4
- d) none

Question17: *8% of Rs.625 is equal to*

- a) Rs.60
- b) Rs.50
- c) Rs.75
- d) Rs.100

Question18: *0.9 per cent can be expressed as*

- a) 0.09
- b) 0.0009
- c) 0.009
- d) None of these

Question19: *A rectangular field has its length and breadth in the ratio 5 : 3. Its area is 3.75 hectares. The cost of fencing it at Rs. 5 per meter is*

- a) Rs. 400
- b) Rs. 500
- c) Rs. 4000
- d) Rs. 1000

Question20: *If the altitudw of an Equilateral triangle is √6 cm, its area is*

- a) $2\sqrt{3}$ cm^2
- b) $2\sqrt{2}$ cm^2
- c) $6\sqrt{2}$ cm^2
- d) None of these

Question21: *The ratio between the length and the perimeter of a rectangular plot is 1 : 3 and the ratio between the breadth and perimeter of that plot is 1 : 6. What is the ratio between the length and area of that plot?*

- a) Data inadequate
- b) 1 : 6
- c) 2 : 1
- d) 1 : 8

Question22: *The area of a trapezium is 28 cm^2 and one of its parallel sides 6 cm. If its altitude is 4 cm then its other parallel side is*
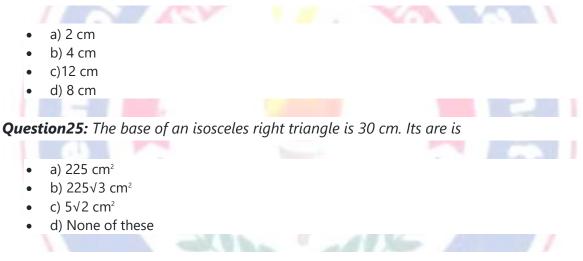
- a) 6 cm
- b) 8cm

- c) 4 cm
- d) none

Question23: *The perimeter of a trapezium is 52 cm and its nonparallel sides are each equal to 10 cm and its altitude is 8 cm. Its area is*

- a) 124 cm^2
- b) 118 cm^2
- c) 112 cm^2
- d) 128 cm^2

Question24: *The area of a rhombus is 120 cm^2 and its altitude is 10 cm. The length of the rhombus is*

- a) 2 cm
- b) 4 cm
- c)12 cm
- d) 8 cm

Question25: *The base of an isosceles right triangle is 30 cm. Its are is*

- a) 225 cm^2
- b) 225√3 cm^2
- c) 5√2 cm^2
- d) None of these

Question26: *One side of an equilateral triangle is 30 cm. Its area is*

- a) 225√3 cm^2
- b) 112.5 cm^2
- c) 225√2 cm^2
- d) 225 cm^2

Question27: *The side of a triangle are 16 cm, 30 cm and 34 cm. Its area is*

- a) 272 cm
- b) 120 cm^2
- c) 260 cm^2
- d) None of these

- Question28: The value of log24 – log15 + log40 is equal to

- a) 6log2
- b) 7log2
- c) 5log2
- d) 8log2

Question29: *The value of log105 + log32 – log80 –log21 is*

- a) log2
- b) log4
- c) log3
- d) log5

Question30: *The value of $\log m^n + \log m^{n+1} + \log m^{1+2n}$ is*

- a) 2logm
- b) nlogm
- c) logm
- d) 3log m

Question31: *The value of log108 – log54 – log2 is*

- a) 2
- b) 1
- c) 3
- d) 0

Question32: *The value of $\log 3^1 + \log 3^{1/2} + \log 3^{1/4} + \log 3^{1/8} + ...$ is equal to*

- a) log3
- b) log9
- c) log4
- d) None of these

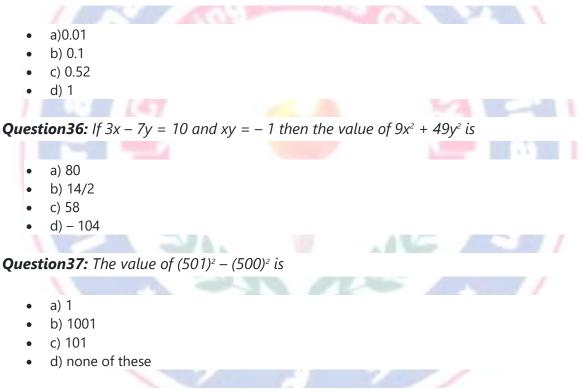**Question33:** *One of the factors of $a^3(b – c)^3 + b^3(c – a)^3 + c^3 (a – b)^3$ is*

- a) all the above
- b) b – c

- c) a – b
- d) c – a

Question34: *One of the factor of $a^3 + 8b^3 - 64c^3 + 24\ abc$ is*

- a) a + 2b + 4c
- b) a + 2b - 4c
- c) a – 2b + 4c
- d) a – 2b – 4c

Question35: *The value of 0.76 X 0.76 X 0.76 + 0.24 X 0.24 X 0.24 / 0.76 X 0.76 – 0.76 X 0.24 + 0.24 + 0.24 is*

- a) 0.01
- b) 0.1
- c) 0.52
- d) 1

Question36: *If $3x – 7y = 10$ and $xy = -1$ then the value of $9x^2 + 49y^2$ is*

- a) 80
- b) 14/2
- c) 58
- d) – 104

Question37: *The value of $(501)^2 – (500)^2$ is*

- a) 1
- b) 1001
- c) 101
- d) none of these

Question38: *Which of the following is a Pythagorean triplet?*

- a) (6, 8, 10)
- b) (5, 12, 18)
- c) (3, 4, 7)
- d) none of these

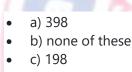**Question39:** *The value of 1 + 3 + 5 + 7 + 9 + ... + 25 is*

- a) 190
- b) 625
- c) 196
- d) 169

Question40: *The smaller number by which 396 must be multiplied so that the product becomes a perfect square is*

- a) 1
- b) 2
- c) 11
- d) 3

Question41: *The value of $\sqrt{99}$ X $\sqrt{396}$ is*

- a) 398
- b) none of these
- c) 198
- d) 254

Answer: c

Question42: *X and Y together can do a peice of work in 8 days, which X alone can do in 12 days. In how many days can Y do the same work alone?*

- a) 24 days
- b) 16 days
- c) 12 days
- d) 36 days

Question43: *A man can row at 8 kmph in still water. If the river is running at 2 kmph, it takes him 48 minutes to row to a place and back. How far is the place?*

- a) 1km
- b) 3 km
- c) 2 km
- d) 4 km

Question44: *If the angles of a triangle are in the ratio 2 : 3 : 4, then the difference between the greatest and smallest angles is*

- a) 40°
- b) 20°
- c) 10°
- d) 30°

Question45: *The consecutive multiples of 3 whose sum is 51 are*

- a) 26,37
- b) 40, 11
- c) 24,27
- d) 25, 26

Answer:

1. A, 2. C, 3. D, 4. B, 5. C, 6. A, 7. C, 8. A ,9. B, 10. C, 11. C, 12. D, 13. B, 14. A, 15. A, 16. C, 17. B, 18. C, 19. C, 20. A, 21. A, 22. B, 23. D, 24. C ,25. A ,26. A ,27. D, 28. C, 29. A, 30. A ,31. D, 32. C, 33. A, 34. B, 35. D ,36. C, 37. B, 38. A, 39. D, 40. C, 41. C, 42. A, 43. B, 44. A, 45. C