

# VR TUITION CENTRE, THENPATHI, SIRKAZHI

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## 7<sup>TH</sup> ONE- MARK QUESTION BANK

### CHOOSE THE CORRECT ANSWER

1. The place value of 3 in 85.073 is \_\_\_\_\_  
 (a) tenths                      (b) hundredths                      (c) thousands                      (d) thousandths
2. The decimal representation of 30 kg and 43 g is \_\_\_\_ kg.  
 (a) 30.43                      (b) 30.430                      (c) 30.043                      (d) 30.0043
3. A cricket pitch is about 264 cm wide. It is equal to \_\_\_\_ m.  
 (a) 26.4                      (b) 2.64                      (c) 0.264                      (d) 0.0264
4. To convert grams into kilograms, we have to divide it by  
 (a) 10000                      (b) 1000                      (c) 100                      (d) 10
5. The simplest form of 0.35 is  
 (a)  $\frac{35}{1000}$                       (b)  $\frac{35}{10}$                       (c)  $\frac{7}{20}$                       (d)  $\frac{7}{100}$
6.  $\frac{3}{5} =$  \_\_\_\_\_                      (a) 0.06                      (b) 0.006                      (c) 6                      (d)  $\frac{7}{100}$
7.  $3 + \frac{4}{100} + \frac{9}{1000} =$  \_\_\_\_\_                      (a) 30.49                      (b) 3049                      (c) 3.0049                      (d) 3.049
8. 0.009 is equal to \_\_\_\_\_                      (a) 0.90                      (b) 0.090                      (c) 0.00900                      (d) 0.900
9. 78.56 \_\_\_\_\_ 78.57                      (a) =                      (b) <                      (c) >                      (d) ≠
10. 37.70 \_\_\_\_\_ 37.7                      (a) =                      (b) <                      (c) >                      (d) ≠
11. The decimal number which lies between 4 and 5 is \_\_\_\_\_  
 (a) 4.5                      (b) 2.9                      (c) 1.9                      (d) 3.5
12. Between which two whole numbers 1.7 lie?  
 (a) 2 and 3                      (b) 3 and 4                      (c) 1 and 2                      (d) 1 and 7
13. Circumference of a circle is always  
 (a) three times of its diameter                      (b) more than three times of its diameter  
 (c) less than three times of its diameter                      (d) three times of its radius

14. Formula used to find the circumference of a circle is

- (a)  $2\pi r$  units      (b)  $\pi r^2 + 2r$  units      (c)  $\pi r^2$  sq. units      (d)  $\pi r^3$  cu. units

15. If the circumference of a circle is  $82\pi$ , then the value of 'r' is

- (a) 41 cm      (b) 82 cm      (c) 21 cm      (d) 20 cm

16. In the formula,  $C = 2\pi r$ , 'r' refers to

- (a) circumference      (b) area      (c) rotation      (d) radius

17. The ratio of the area of a circle to the area of its semicircle is

- (a) 2:1      (b) 1:2      (c) 4:1      (d) 1:4

18. Area of a circle of radius 'n' units is

- (a)  $2\pi r^p$  sq. units      (b)  $\pi m^2$  sq. units      (c)  $\pi r^2$  sq. units      (d)  $\pi n^2$  sq. units

19. The formula used to find the area of the circle is \_\_\_\_\_ sq. Units

- (a)  $4\pi r^2$       (b)  $\pi r^2$       (c)  $2\pi r^2$       (d)  $\pi r^2 + 2r$

20. The formula to find the area of the circular path is

- (a)  $\pi(R^2 - r^2)$  sq. units      (b)  $\pi r^2$  sq. units      (c)  $2\pi r^2$  sq. units      (d)  $\pi r^2 + 2r$  sq. units

21. The formula used to find the area of the rectangular path is

- (a)  $\pi(R^2 - r^2)$  sq. units      (b)  $(L \times B) - (l \times b)$  sq. units      (c)  $LB$  sq. units      (d)  $lb$  sq. units

22. The formula to find the width of the circular path is

- (a)  $(L - l)$  units      (b)  $(B - b)$  units      (c)  $(R - r)$  units      (d)  $(r - R)$  units

23.  $2^{40} + 2^{40}$  is equal to

- (a)  $4^{40}$       (b)  $2^{40}$       (c)  $2^{41}$       (d)  $4^{80}$

24.  $a \times a \times a \times a \times a$  is equal to

- (a)  $a^5$       (b)  $5^a$       (c)  $5a$       (d)  $a + 5$

25. The value of  $x$  in the equation  $a^{13} = x^3 \times a^{10}$  is

- (a)  $a$       (b) 13      (c) 3      (d) 10

26. The exponential form of 72 is

- (a)  $7^2$       (b)  $2^7$       (c)  $2^2 \times 3^3$       (d)  $2^3 \times 3^2$

27. How many zeros are there in  $100^{10}$
- (a) 2 (b) 3 (c) 10 (d) 20
28. The unit digit of the numeric expression  $10^{71} + 10^{72} + 10^{73}$  is
- (a) 0 (b) 3 (c) 1 (d) 2
29. The unit digit of  $(32 \times 65)^0$  is
- (a) 2 (b) 5 (c) 0 (d) 1
30. Observe the equation  $(10 + y)^4 = 50625$  and find the value of  $y$ .
- (a) 1 (b) 5 (c) 0 (d) 1
31.  $3p^2 - 5pq + 2q^2 + 6pq - q^2 + pq$  is
- (a) Monomial (b) Binomial (c) Trinomial (d) Quadrinomial
32. If  $p(x)$  and  $q(x)$  are two expressions of degree 3, then the degree of  $p(x) + q(x)$  is
- (a) 6 (b) 0 (c) 3 (d) Undefined
33. The degree of  $6x^7 - 7x^3 + 4$  is
- (a) 7 (b) 3 (c) 6 (d) 4
34. The angles of a triangle are in the ratio 2:3:4. Then the angles are
- (a) 20, 30, 40 (b) 40, 60, 80 (c) 80, 20, 80 (d) 10, 15, 20
35. One of the angles of a triangle is  $65^\circ$ . If the difference of the other two angles is  $45^\circ$ , then the two angles are
- (a)  $85^\circ, 40^\circ$  (b)  $70^\circ, 25^\circ$  (c)  $80^\circ, 35^\circ$  (d)  $80^\circ, 135^\circ$
36. An exterior angle of a triangle is  $70^\circ$  and two interior opposite angles are equal. Then measure of each of these angle will
- (a)  $110^\circ$  (b)  $120^\circ$  (c)  $35^\circ$  (d)  $60^\circ$
37. If an exterior angle of a triangle is  $115^\circ$  and one of the interior opposite angles is  $35^\circ$ , then the other two angles of the triangle are
- (a)  $45^\circ, 60^\circ$  (b)  $65^\circ, 80^\circ$  (c)  $65^\circ, 70^\circ$  (d)  $115^\circ, 60^\circ$
38. If two plane figures are congruent then they have
- (a) same size (b) same shape (c) same angle (d) same shape and same size
39. Which of the following methods are used to check the congruence of plane figures?
- (a) translation method (b) superposition method  
(c) substitution method (d) transposition method
40. Two students drew a line segment each. What is the condition for them to be congruent?

- (a) They should be drawn with a scale. (b) They should be drawn on the same sheet of paper.  
 (c) They should have different lengths. (d) They should have the same length.

41. Which of the following rule is not sufficient to verify the congruency of two triangles.

- (a) SSS rule (b) SAS rule (c) SSA rule (d) ASA rule

42. In  $\triangle ABC$  and  $\triangle PQR$ ,  $\angle A = 50^\circ = \angle P$ ,  $PQ = AB$ , and  $PR = AC$ . By which property  $\triangle ABC$  and  $\triangle PQR$  are congruent?

- (a) SSS property (b) SAS property (c) ASA property (d) RHS property

43. The elements along the sixth row of the Pascal's Triangle is

- (a) 1,5,10,5,1 (b) 1,5,5,1 (c) 1,5,5,10,5,5,1 (d) 1,5,10,10,5,1

44. The difference between the consecutive terms of the fifth slanting row containing four elements of a Pascal's Triangle is

- (a) 3,6,10,... (b) 4,10,20,... (c) 1,4,10,... (d) 1,3,6,...

45. What is the sum of the elements of ninth row in the Pascal's Triangle?

- (a) 128 (b) 254 (c) 256 (d) 126

46. Identify the correct relationship between  $x$  and  $y$  from the given table.

x	1	2	3	4	...
y	4	8	12	16	...

- (a)  $y = 4x$  (b)  $y = x + 4$  (c)  $y = 4x$  (d)  $y = 4 \times 4$

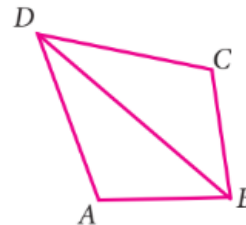
47. Identify the correct relationship between  $x$  and  $y$  from the given table.

x	-2	-1	0	1	2	...
y	6	3	0	-3	-6	...

- (a)  $y = -2x$  (b)  $y = +2x$  (c)  $y = +3x$  (d)  $y = -3x$

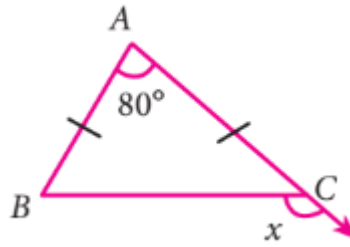
48. In the given figure,  $AD = CD$  and  $AB = CB$ . Identify the other three pairs that are equal.

- (a)  $\angle ADB = \angle CDB$ ,  $\angle ABD = \angle CBD$ ,  $BD = BD$   
 (b)  $AD = AB$ ,  $DC = CB$ ,  $BD = BD$   
 (c)  $AB = CD$ ,  $AD = BC$ ,  $BD = BD$   
 (d)  $\angle ADB = \angle CDB$ ,  $\angle ABD = \angle CBD$ ,  $\angle DAB = \angle DBC$



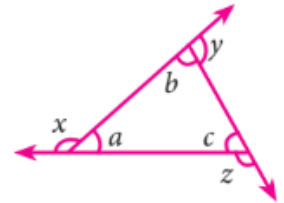
49. In a  $\triangle ABC$ ,  $AB = AC$ . The value of  $x$  is \_\_\_\_\_.

- (a)  $80^\circ$
- (b)  $100^\circ$
- (c)  $130^\circ$
- (d)  $120^\circ$



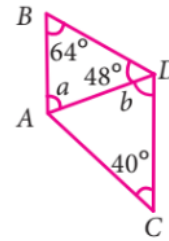
50. In the given figure, which of the following statement is true?

- (a)  $x + y + z = 180^\circ$
- (b)  $x + y + z = a + b + c$
- (c)  $x + y + z = 2(a + b + c)$
- (d)  $x + y + z = 2(a + b + c)$



51. In the given figure,  $AB$  is parallel to  $CD$ . Then the value of  $b$  is

- (a)  $112^\circ$
- (b)  $68^\circ$
- (c)  $102^\circ$
- (d)  $62^\circ$



### FILL IN THE BLANK

- The value of  $(14 \times 21)^0$  is \_\_\_\_\_.
- When base is 12 and exponent is 17, its exponential form is \_\_\_\_\_.
- The exponential form  $14^9$  should be read as \_\_\_\_\_.
- The expanded form of  $p^3q^2$  is \_\_\_\_\_.
- When the unit digit of the base and its expanded form of that number is 9, then the exponent must be \_\_\_\_\_ power.
- Unit digit of  $120 \times 36 \times 980$  is \_\_\_\_\_.
- Degree of the constant term is \_\_\_\_\_.
- The degree of the term  $a^3b^2c^4d^2$  is \_\_\_\_\_.
- The coefficient of leading term of the expression  $3z^2y + 2x - 3$  is \_\_\_\_\_.

### SAY TRUE OR FALSE

- $2^3 < 3^2$
- $2^0 = (1000)^0$
- $3^4 \times 3^7 = 3^{11}$
- $2^9 \times 3^2 = (2 \times 3)^{9 \times 2}$
- $2^3 \times 3^2 = 6^5$
- Any integer can be the degree of the expression.
- The degree of the expression  $-4x^2yz$  is  $-4$
- $7a^2b$  and  $-7ab^2$  are like terms.
- The degree of  $m^2n$  and  $mn^2$  are equal.