Indian Women Scientists' Association

Vashi, Navi Mumbai

IWSA Ganit Pratiyogita 2025

Class- VIII CBSE **Time: 2.00 pm – 3.30 pm**

Date: 30th November, 2025 **Total Marks: 100**

Instructions

1. There is a total of 50 questions. Each question carries 2 marks. There is no negative marking.

2. Each question has been given four optional answers a, b, c, and d. On the given answer sheet write **only one option** (either a, b, c, or d) which according to you indicates the correct answer to the question asked.

3. Writing more than one option as an answer to any question in the answer sheet, will give you a zero mark for that Question.

4. Use only a blue pen to make any entry on the answer sheet.

5. You will not be allowed to leave the examination hall without signing and submitting your answer sheet.

6. The blank paper provided can be used for your rough calculations. This is not to be submitted. You may take the question paper and rough sheet home after the exam.

7. Use of Calculators, or any other electronic gadgets, during the exam is strictly prohibited.

Questions

1.Find the value of A, B in the following:

$$\begin{array}{r} A\ 1 \\ +\ 2\ B \\ \hline B\ 0 \\ \hline \end{array}$$

a) 6, 9 b) 6, 6 c) 9, 6 d) 9, 9

2. Which of the following is the product of $(^{-7}/_{8})$ and $(^{2}/_{21})$

a) ½ b) $^{-63}/_{16}$ c) $^{-16}/_{147}$ d) $^{-1}/_{12}$

3.Which of the following is the standard form of 0.00001275?

a) 1.275×10^{5} b) 1.275×10^{-5} c) 127.5×10^{-7} d) 127.10^{7}

4. Arun gave 40% of the amount he had to Pravin. Pravin in turn gave one-fourth of what he received from Arun to Arjun. After paying Rs 200/- to the NGO out of the amount he got from Pravin, Arjun now has Rs 600/- left with him. How much amount did Arun have?

a) Rs 1,200 b) Rs 4,000 c) Rs 8,000 d) Rs 6,000

5.Express 125 as sum of consecutive odd numbers.

a) 17+19+21+23+25
b) 23+25+27+29+31
c) 19+21+23+25+27
d) 21+23+25+27+29

6. 5 persons complete 10 jobs in 20 minutes. How many minutes will 30 persons take tocomplete 30 similar jobs?

a) 100 b) 180 c) 10 d) 360

7. The rainfall of four major cities, as of 2021 are shown below:

City	Rainfall in cms
Ahmedabad	12.42
Baroda	11.07
Jamnagar	4.61
Surat	4.4

Approximately how much per cent is the rainfall of Jamnagar more than the rainfall of Surat?

a) 0.6% b. 5.5% c. 4% d. 2.8%

8.A bag has 5 balls. One of each color red, blue, green, yellow and pink. How many possible outcomes are there for a ball picked from bag?

a) 6 b) 2 c) 3 d) 5

9. ¾ part of a number is 5 more than its $^{2}/_{3}$part. This statement in the form of an equation is:

a) $\frac{2}{3}x - \frac{3}{4}x = 5$ b) $\frac{2}{3}x - 5 = \frac{3}{4}x$

c) $\frac{3}{4}x = \frac{2}{3}x + 5$ d) $\frac{3}{4}x - 5 = -\frac{2}{3}x$

10.Raj has an isosceles trapezoidal shaped paper. He wants to give equal area triangles to his friends; how many friends will get the triangle shaped cutting?

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

11. If AB = 5 cm, BC = 4 cm, $\angle B = 90°$ and opposite sides are equal, then which of the following figures can be constructed?

a) Square b) Rectangle c) Trapezium d) Rhombus

12. The height of two right circular cylinders are the same. Their volumes are respectively 16 π m^3 and 81 π m^3. The ratio of their base radius is

a) 16: 81 b) 9: 14 c) 2: 3 d) 4: 9

13. By joining (1, 1), (0, 0) and (3, 3), which of the following is obtained?

a) A triangle
b) A straight line passing through origin
c) A curved line
d) A straight line not passing through origin

14. The value of (x + y) (x + y) + (y – z) (y + z) + (z – x) (z + x) is equal to:

a) $2x^2$ b) 2x(y+ z) c) 2z (y+x) d) 2y (x+y)

15. The value of $x^2 – 2yx + y^2$ when x= 1; y = - 2 is

a) 1 b) 2 c) 9 d) 6

16. Which of the following statements is true?

a) Natural numbers are associative for division.
b) Whole numbers are associative for division.
c) Integers are associative for division.
d) Rational numbers are not associative for division.

17. At a clothing store, Ameena buys a pair of jeans and some t-shirts marked at a price of Rs. 2500 at 12% discount. How much does she need to pay to the shopkeeper?

a) Rs 1600 b) Rs 1250 c) Rs 2,200 d) Rs 1800

18. The value of x = $\sqrt{17.64}$.

a) 4 < x < 5 b) 5 < x > 4 c) 4 > x > 5 d) 3 < x < 4

19. 10. By simplifying $(4)^{1/3} * (16)^{1/3}$, we get _____

a) 4 b) 8 c) 64^3 d) 16

20. Find the smallest number by which the number 88 must be divided to obtain a perfect cube.

a) 2 b) 4 c) 9 d) 11

21. If x and y vary inversely with respect of each other such that x = 15 when y = 6. Find the value of x when y = 15.

a) 2 b) 4 c) 5 d) 6

22. The base area of a right circular cylinder is 16 π cm^2. Its height is 5 cm. Its curved surface area is …….

a) 40 π cm^2 b) 30 π cm^2 c) 80 π cm^2 d) 10 π cm^2

23. Which statement is incorrect for outcomes when 2 coins are tossed?

a) The outcome of first coin doesn't affect the outcome of second coin
b) The outcome of second coin doesn't affect the outcome of first coin
c) If outcome of first coin is head then the outcome of second coin cannot be head
d) If outcome of first coin is head then the outcome of second coin can also be head

24. Bansal has 7 times as many two-rupee coins as he has five-rupee coins. If he has in all a sum of rupees 95, how many coins of each denomination does he have?
a) 5 two-rupee and 25 five-rupee
b) 35 two-rupee and 5 five-rupee
c) 5 two-rupee and 35 five-rupee
d) 25 two-rupee and 5 five-rupee

25.Find the value the following expression: $^1/_6\ x + {}^2/_5\ xy - 13y - {}^7/_5\ xy + {}^1/_6\ x$.
a) $^1/_3\ x - {}^9/_5\ xy - 13y$ b) $^1/_3\ x + 1xy - 13y$
c) $^1/_3\ x - 1xy - 13y$ d) $-1xy - 13y$

26. If the angles of a triangle are $(x - 35)°$, $(x - 25)°$ and $(^1/_2\ x - 10)°$, then find the value of x.
a) 150° b) 170° c) 110° d) 100°

27.What is the resultant polynomial obtained when (a^3) and $(51cb^2 + 14abc)$ are multiplied?
a) $51cb^2a^3 + 14a^4bc$ b) $51a^3cb + 14a^4bc$ c) $51cba^2 + 14a^3bc$ d) $51abc + 14a^3bc$

28.In a quadrilateral ABCD the angles A,B, C and D are in the ratio 2 : 3 : 3 : 4. The quadrilateral is:
a) parallelogram b) rhombus c) trapezium d) rectangle

29.The present population of a village is 10000. If it increases at the rate of 2% per annum, find the population after 2 years.
a) 10404 b) 10004 c) 10402 d) 10400

30.Varun studies for $6\ ^1/_4$ hours daily. He devotes $1\ ^3/_4$ hours of his time to Science and Sanskrit. How much time does he devote to other subjects?
a) 2 hours b) $4\ ^2/_3$ hours c) $4\ ^1/_2$ hours d) $3\ ^1/_4$ hours

31. Twelve-sided dice are used in adventure games. They are marked with the numbers 1 to 12. The score is the uppermost face. If this type of dice is thrown, then what is the probability that the score is a factor of 12?
a) 1/2 b) 3/4 c) 1/6 d) 1/4

32. The scale of map is given as 1:300. Two cities are shown as 2.75 km apart on the map. The actual distance between them is
a) 82.50 km b)825.5 km c)725 km d) 825km

33.Two poles, 18 m and 13 m high, stand upright in a playground. If their feet are 12 m apart, then find the distance between their tops.
a) 18 m b) 13 m c) 14 m d) 16 m

34.Find the value of (10001 + 12) (10001 – 12).
a) 1000190857 b) 1000019857 c) 10019857 d) 100019857

35.What is the value of $5x^{25} - 3x^{32} + 2x^{-12}$ at x=1?

a)0 b)2 c)4 d)None of these

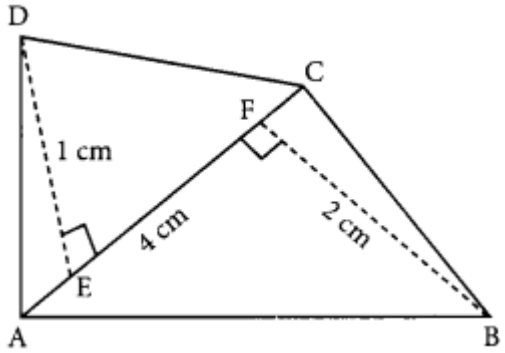
36.What is the value attained when $(2z – 3)(4w^2 – z)$ is subtracted from $(6w^2 + 4)(22z – 2)$?

a) $124w^2z + 85z + 2z^2 – 3z – 8$
b) $140w^2z – 24w^2 + 91z – 2z^2 – 8$
c) $124w^2z – 85z + 2z^2 – 3z$
d) $140w^2z – 24w^2 – 91z – 2z^2 – 8$

37.The ratio of the radius of two right circular cylinder is 1 : 2 and the ratio of their height is 4 : 1 then the ratio of their volume is

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

38.The area of the quadrilateral is



a) 8 cm² b) 12 cm² c) 6 cm² d) 3 cm²

39.If M is a number such that M ÷ 5 gives a remainder of 1, then which of the following is the ones-digit of M?

a) 1 b) 6 c) 1 or 6 d) none of these

40.Below is the list of cities nominated as the favorite city by tourists. Which is the correct frequency distribution diagram for favorite city?
Mumbai, Delhi, Agra, Mumbai, Agra, Agra, Chennai, Mumbai, Agra, Delhi, Delhi, Agra, Chennai, Mumbai, Delhi, Delhi, Agra, Delhi, Agra

a)

City	Tally Marks
Mumbai	|||
Delhi	|||| |
Agra	|||| ||||
Chennai	|||

b)

City	Tally Marks
Mumbai	||||
Delhi	|||| |
Agra	|||| ||
Chennai	||

c)

City	Tally Marks
Mumbai	||||
Delhi	|||| ||
Agra	||||
Chennai	|

d)

City	Tally Marks
Mumbai	||||
Delhi	||||
Agra	|||| |||
Chennai	||||

41. A boy is running at a speed of p km/h to cover a distance of 1 km. But, due to slippery ground, his speed is reduced by q km/h (p > q). If he takes r hours to cover the distance, then which of the following is the correct relation between time, speed and distance?

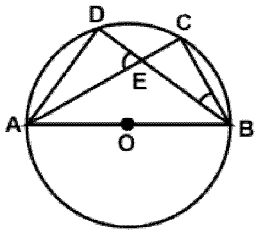
a) $1/r = (p - q)$

b) $r = (p - q)$

c) $1/r = (p + q)$

d) $r = (p + q)$

42. In the given figure, O is the centre of the circle, ∠CBE = 25□ and ∠DEA = 60□. Find the measure of ∠ADB.



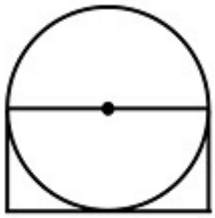
a) 90^0 b) 85^0 c) 95^0 d) 120^0

43. Select the incorrect match of the given solids with the product of their number of faces and vertices:

a) Rectangular pyramid - 25 b) Triangular prism - 30

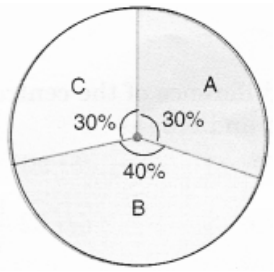
c) Octahedron - 48 d) Triangular pyramid - 18

44. The area of the circle is 616 cm^2. What is the area of the rectangle?



a) 784 cm^2 b) 196 cm^2 c) 392 cm^2 d) Cannot be determined

45.Observe the pie chart given below and answer the following questions:



What is the difference between the central angles for sector B and sector C?

a)36^o b)72^o c)9^o d)81^o

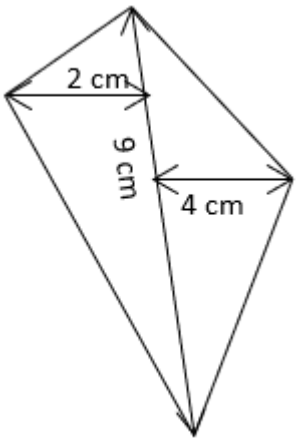
46.If $(-3)^{m-1} \times (-3)^5 \times (-3)^7 = (-3)^7$ then the value of m is

a)5 b) 4 c) -4 d) -3

47.The market value of a share is 80% of the face value. If the selling price = the market value, what percentage of the selling price is the face value.

a) 125% of the selling price = the face value
b) 150% of the selling price = the face value
c) 175% of the selling price = the face value
d) 80% of the selling price = the face value

48.Find the area of the given quadrilateral.

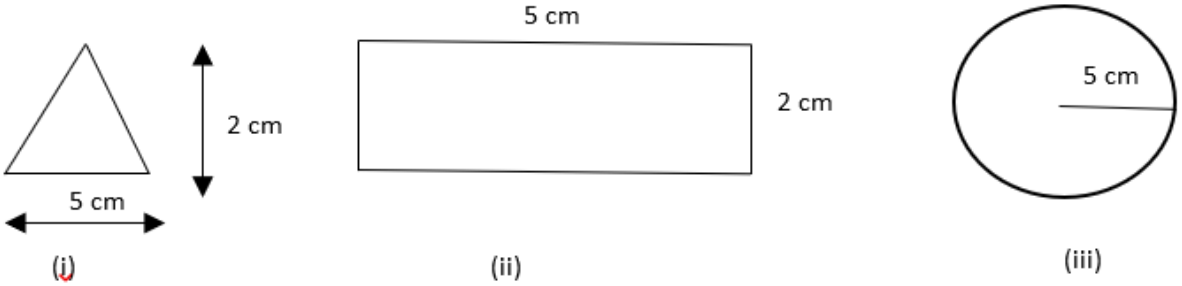


a) 26cm^2 b) 27cm^2 c) 29cm^2 d) 25cm^2

49. In the first four papers each of 100 marks, Ronaldo got 95, 72, 73 and 83 marks. If he wants an average of greater than or equal to 75 marks and less than 80 marks, find the range of marks he should score in the fifth paper.

a) 52 < x < 77 b. 25 < x < 75 c. 75 < x < 80 d. 73 < x < 100

50.Which of the following option is correct if a,b and c are the areas of the given figures (i), (ii) and (iii) respectively? (π = 22/7)



a) a < b < c b) a > b > c c) a < b > c d) b < c > a

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