

O.P. JINDAL SCHOOL, SAVITRI NAGAR**Annual Examination (2025 – 26)****Class/Section : VII / _____****MM : 80****Subject : Mathematics****Time : 3 Hrs.**

Name: _____

Roll No. _____

General Instructions: All questions are compulsory.

- i) **Section A** consists of 16 questions and each question carry **1 mark**.
- ii) **Section B** consists of 8 questions and each question carry **2 marks**.
- iii) **Section C** consists of 8 questions and each question carry **3 marks**.
- iv) **Section D** consists of 4 questions and each question carry **4 marks**.
- v) **Section E** consists of 8 questions and each question carry **1 mark**.

(SECTION-A)**Multiple choice questions:**

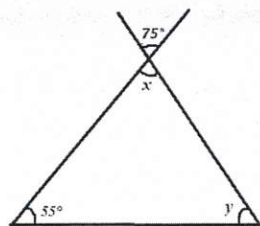
- Q1.** 5% of 2400 is _____.
 a) 120 b) 140 c) 160 d) 180
- Q2.** If $\frac{x}{6} = \frac{7}{-3}$, then the value of x is
 a) 14 b) -14 c) 21 d) -21
- Q3.** Standard form of $\frac{33}{-55}$ is
 a) $\frac{3}{-5}$ b) $\frac{-3}{5}$ c) $\frac{-33}{55}$ d) none of these
- Q4.** $1 \text{ cm}^2 =$ _____.
 a) 10 mm^2 b) 100 mm^2 c) 10000 mm^2 d) none of these
- Q5.** If $m = 2$, then the value of $(-9 - 5m)$ is _____.
 a) 19 b) 13 c) -19 d) -1
- Q6.** Two angles of a triangle is 48° and 75° , then the third angle is:
 a) 75° b) 57° c) 123° d) 180°
- Q7.** The radius of a circular wheel is 1.75 m. how many revolutions will it make in travelling 11 km?
 a) 10 b) 100 c) 1000 d) 10000
- Q8.** A solid having zero edge is a:
 a) cone b) pyramid c) cylinder d) sphere

- Q9.** The Simple Interest at $x\%$ p.a. for x years will be Rs. x on a sum of
- a) Rs. x b) Rs. $10x$ c) Rs. $100x$ d) Rs. $\frac{100}{x}$
- Q10.** Which of the following numbers is in standard form?
- a) 32.63×10^4 b) 326.3×10^3 c) 3.263×10^5 d) 3263×10
- Q11.** A figure with 5 vertices, 8 edges and 5 faces is a:
- a) Cube b) Square pyramid c) Cone d) Cylinder
- Q12.** Exponential notation of 3125 is :
- a) 3^{125} b) $3 \times 1 \times 2 \times 5$ c) 5^6 d) 5^5
- Q13.** The algebraic expression $-ab + 2b^2 - 3a^2$ is a _____.
- a) monomial b) binomial c) trinomial d) none of these
- Q14.** Triangle is possible in which of the following pair of sides
- a) 2cm, 3cm, 4cm b) 2cm, 3cm, 5cm c) 6cm, 3cm, 2cm d) none of these
- Q15.** Assertion (A): 3 faces does a triangular pyramid have.
- Reason (R):** A triangular pyramid is a geometric solid with a triangular base, and all three lateral faces are also triangles with a common vertex.
- a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true and R is not the correct explanation of A.
c) A is true but R is false.
d) A is false but R is true.
- Q16.** Assertion (A): Area of parallelogram = base $\times$ height
- Reason (R):** Area of parallelogram = $\frac{1}{2} \times$ product of two adjacent sides.
- a) Both A and R are true and R is the correct explanation of A.
b) Both A and R are true and R is not the correct explanation of A.
c) A is true but R is false.
d) A is false but R is true

(SECTION-B)

- Q17.** Identify like terms in the
- $12x, 12, -25x, -25, -25y, 1, xy, 12y, -5xy, y$
- Q18.** Simplify : $(-2)^3 \times (-10)^3$
- OR**
- Identify the greater number : 2^8 or 8^2
- Q19.** If 15% of x is 75, then find the value of x .

Q20. Find the values of x and y in the given diagram.



Q21. Give four rational numbers equivalent to : $\frac{-2}{7}$

OR

Find the value of : $\frac{-7}{12} \div \left(\frac{-2}{13}\right)$

Q22. Find the height of a parallelogram of base 15 cm and area is equal to 154.5 cm^2 .

Q23. Show the terms and factors by tree diagram.

$$5xy^2 - 7x^2y$$

Q24. Draw a net of a cube of side 2 cm.

(SECTION-C)

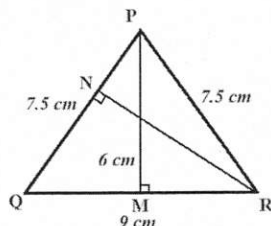
Q25. Write the given rational numbers in descending order:

$$\frac{-4}{9}, \frac{5}{-12}, \frac{-7}{18}, \frac{2}{-3}$$

Q26. Write the algebraic expressions for the following statement.

- One -fourth of the product of numbers p and q .
- Product of numbers y and z subtracted from 10.
- Numbers x and y both squared and added.

Q27. ΔPQR is an isosceles triangle with $PQ = PR = 7.5 \text{ cm}$ and $QR = 9 \text{ cm}$. the height PM from P to QR is 6 cm. Find the area of ΔPQR . What will be the height from R to PQ i.e. RN .



Q28. Rs. 6050 is borrowed at 6.5% rate of interest p.a. Find the interest and the amount to be paid at the end of 3 years.

Q29. Pankaj bought a freeze for Rs. 13600 and spent Rs. 400 on its transportation. He sold it for Rs. 16800. Find his gain or loss per cent.

Q30. Write down the number of faces, vertices and edges of –

- a) Cuboid
- b) Cone
- c) Cylinder

Q31. Express:

- a) 4379.85 in standard form
- b) 2800619 in expanded form
- c) Diameter of Earth is 1,27,56,000 m in standard form.

OR

Express as a product of prime factors only in exponential form.

$$729 \times 64$$

Q32. Find the perimeter of the rectangle whose length is 40 cm and a diagonal is 41 cm.

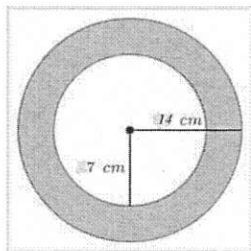
OR

Two poles, 18 m and 13 m high, stand upright in a playground. If their feet are 12 m apart, find the distance between their tops.

(SECTION-D)

Q33. The adjoining figure shows two circles with the same centre. The radius of the larger circle is 14 cm and the radius of the smaller circle is 7 cm. Find : (Use $\pi = \frac{22}{7}$)

- a) Difference in the two radius.
- b) The area of the smaller circle.
- c) The area of the larger circle.
- d) The shaded area between the two circles.



Q34. Simplify the given expressions and find the value, if 'q' is equal to 2.

$$4(2q - 1) + 3q + 11$$

Q35. Solve as directed:

- a) Convert each part of 3 : 1 into percentage.
- b) A shop has 500 items, out of which 5 are defective. What percent are defective?

Q36. Simplify and write the answer in exponential form:

$$\frac{12^4 \times 9^3 \times 4}{6^3 \times 8^2 \times 27}$$

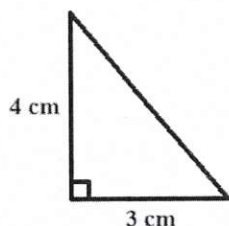
OR

Expand a^3b^2 , a^2b^3 , b^2a^3 , b^3a^2 . Are they all same?

(SECTION-E)

Case Study Based

(CASE – I): A right angle is a triangle in which any one angle is equal to 90° and side opposite to it is the longest side also known as the hypotenuse. In the given right angle triangle, two sides are given as 3 cm and 4 cm, but hypotenuse is unknown. Refer to the given diagram and answer the following as per indication is given:



Q37. Find the value of a^2 , when $a = 3$.

Q38. Find the value of b^2 , when $b = 4$.

Q39. Find the hypotenuse of the given triangle.

Q40. What will be the value of $c^2 - (a^2 - b^2)$.

(CASE – 2) Aishwarya's grandmother has been suffering from fever for many days. She went to her hometown, Vijayawada to see her grandmother. Her house is 325 km away from Hyderabad. She covered $\frac{1}{5}$ of her journey by bus, 227.5 k, by train, 26 km by taxi and rest on foot.

Q41. How much distance did Aishwarya cover by bus?

Q42. How much of the journey she covered by train?

Q43. How much distance did she cover on foot?

Q44. What will be the sum of distance covered by train and bus?
