

Total No. of Questions: 16

MSESZ-17

Total No. of Pages-4

Subject: Mathematics

**C-807**

Roll No. 701182.....

Time: 2.30 Hrs.

MH-CSZ

Max. Marks 50

Note: Attempt all questions

## Section - I

Fill in blanks. Each part carry 01 mark.

Q.No. 1:

(i) The reciprocal of  $-5$  is  $-\frac{1}{5}$

(ii) Sum of angles of pentagon is =  $540^\circ$

(iii) A \_\_\_\_\_ is a pictorial representation of data using symbols.

(iv) Cube root of 64 is equal to  $4$

(v) Evaluate

$$(-4)^{-2} = \underline{\hspace{2cm}}$$

(vi)  $a^m \times a^n =$

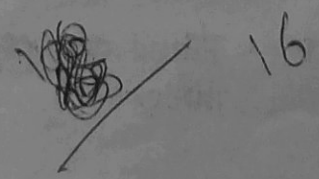
1×6=6 marks

## Section -II

Very Short answer type questions. Carrying 02 marks each

Q.No. 2: Solve the equation

$$\frac{3}{7} + x = \frac{17}{7}$$



Q.No. 3: Simplify and express the result in power notation with positive exponents.

$$(3^{-7} \div 3^{-10}) = 3^{-5}$$

Q.No. 4: Find the value of m for which

$$5^m \div 5^{-3} = 5^5$$

Q.No. 5: Multiply the binomials

$$(2x + 5) \text{ and } (4x - 3)$$

Q.No. 6: Factorise

$$49p^2 - 36$$

Q.No. 7: The area of Rhombus is  $240\text{cm}^2$  and one of the diagonal is 16cm. Find the other diagonal.

Q.No. 8: Convert the ratio into percentage 3 : 4.

2×7=14 marks

### Section -III

**Short answer type questions. Carrying 03 marks each**

Q.No. 9: Three consecutive integers add up to 51. What are the integers?

# JKBOSE OLD PAPERS

Q.No. 10: Calculate the amount and Compound interest on Rs. 10800 for 3 years at  $12\frac{1}{2}\%$  per annum Compounded annually.

Q.No. 11: Find the area of Rhombus whose side is 6cm and whose altitude is 4cm.

Q.No. 12: An item is marked at Rs. 840 is sold for Rs. 714. What is the discount and discount %.

Q.No. 13: Factorise

$$p^2 + 6p + 8$$

3×5=15 marks

## Section -IV

**Long answer questions. Carrying 05 marks each**

Q.No. 14: Using

$$a^2 - b^2 = (a + b)(a - b)$$

$$\text{find } (1.02)^2 - (0.98)^2$$

or

Simplify

$$(2x + 5)^2 - (2x - 5)^2$$



# UKBOSE OLD PAPERS

Q.No. 15: Find the height of a Cuboid whose base area is  $180\text{cm}^2$  and Volume is  $900\text{cm}^3$ ?

or

A road roller takes 750 complete revolutions to move once over to level a road. Find the area of the road if the diameter of the road roller is 84cm and length is 1m.

Q.No. 16: Construct a quadrilateral MORE,  $MO = 6\text{cm}$ ,  $OR = 4.5\text{cm}$ .

$\angle M = 60^\circ$ ,  $\angle O = 105^\circ$  and  $\angle R = 105^\circ$

or

Construct a quad ABCD in which  $AB = 4.5\text{cm}$ ,  $BC = 5.5\text{cm}$ ,  $CD = 4\text{cm}$ ,  $AD = 6\text{cm}$  and  $AC = 7\text{cm}$ .

$5 \times 3 = 15$  marks

$$\begin{array}{r} 1 \\ 1728 \\ 108 \\ \hline 1836 \end{array} \quad 12 \times 12 \times 12$$

$$\begin{array}{r} 750 \\ 42 \\ \hline 1560 \\ 2660 \times \\ \hline 275002 \end{array}$$

$$\begin{array}{r} 27500 \\ \times 750 \\ \hline 160000 \\ 1375000 \\ \hline 1825000 \end{array}$$

$$\begin{array}{r} 19625000 \\ \hline 144 \\ \times 12 \\ \hline 288 \\ 144 \times \\ \hline 1728 \end{array}$$

$$\begin{array}{r} 85 \\ 5 \overline{) 425} \\ \underline{40} \\ 25 \\ \underline{25} \\ 0 \end{array}$$