MODEL TEST PAPER SUMMATIVE ASSESSMENT-I
(*Unsolved- 3*)

Time: 3hr.   **Max Marks: 80**

GENERAL INSTRUCTIONS.

➢ Attempt all the questions neatly, showing the necessary working wherever required.
➢ Section-A (Q1- Q10): Each question carries 1 mark.
➢ Section-B (Q11- Q20): Each question carries 2 marks.
➢ Section-C (Q 21-Q 30): Each question carries 3 marks.
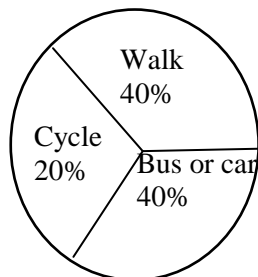➢ Section-D (Q31- Q 35): Each question carries 4 marks.
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SECTION A

Q.1. The product of $\frac{5}{7}$ and the additive inverse of $\frac{21}{15}$ is _____ .

Q.2. How many natural numbers lie between squares of 30 and 31?

Q.3. The value of $\sqrt[3]{\frac{-125}{64}}$ is _____ .

Q.4. Find the value of x + y + z in the figure below:
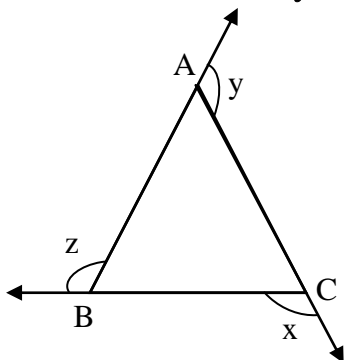
Q.5. In the given pie chart find the fraction of the circle representing <u>cycle</u> as mode to transport.

Q.6. Three angles of a quadrilateral are 80º each so the fourth angle will be _____ .

Q.7.　If $x = -2$ then, find the value of $x^2 - 3x$ is _____ .

Q.8.　The class mark of class interval 60- 70 is _____ .

Q.9.　If $2(x - 3) = -5$ then $x =$ _____ .

Q.10.　Simplify $(x + 5)(x - 5)$.

SECTION B

Q.11.　By what number should we multiply $\dfrac{-5}{7}$ to get $\dfrac{-10}{13}$.

Q.12.　Evaluate: $\left\{\sqrt{3^2 + 4^2}\right\}^3$

Q.13.　Find x if $5x = 25^2 - 20^2$.

Q.14.　A number multiplied by itself gives 729. Find the number.

Q.15.　PQRS is a trapezium in which PQ||RS. If $\angle P = \angle Q = 50^\circ$, then what is the measure of other two angles?

Q.16.　Simplify: $20a^2 + 6a - 3a(a - 4)$

Q.17.　Following frequency distribution table shows marks (out of 50) obtained in Math test by 45 students of class VIII.

Class Interval	Frequencies
0- 10	1
10- 20	6
20- 30	12
30- 40	20
40- 50	6
Total	45

(i)　What is the size of the class interval?
(ii)　Which class has the highest frequency?

Q.18.　Solve for a: $5a + 9 = 2(7a - 9)$

Q.19.　By what least number should we multiply 810 to make it a perfect square?

Q.20. The exterior angle of a regular polygon is 36°. Find the number of sides of the polygon.

<center>SECTION C</center>

Q.21. Solve for x : $\dfrac{x}{3} - \dfrac{1}{5} = \dfrac{x}{5} + \dfrac{1}{4}$

Q.22. Find the smallest number of four digits which is a perfect square.

Q.34. Find the value of $(x^2 + 2y)(x - y)$ when $x = 1$ and $y = -2$.

Q.23. Find six rational numbers between $\dfrac{-17}{6}$ and $\dfrac{-5}{3}$?

Q.24. Solve: $\dfrac{2x+1}{3x-2} = \dfrac{9}{10}$

Q.25. The volume of a cubical box is 32.768 cubic metre. Find the length of a side of the box.

Q.26. The following table gives the marks scored students in an entrance examination.

| Marks	1- 10	10- 20	20- 30	30- 40	40- 50	50- 60
No. of students	4	10	16	22	20	18

Represent this data in the form of a histogram.

Q.27. The ratio between the exterior angle and the interior angle of a regular polygon is 2 : 7. Find the number of sides in the polygon.

Q.28. Simplify using property and also state the property: $\left\{ \dfrac{7}{5} \times \left(\dfrac{-1}{4} \right) \right\} + \left\{ \dfrac{7}{5} \times \dfrac{5}{12} \right\}$

Q.29. RENT is a rectangle with its dimensions in metres. Its diagonals meet at O.
If OR= 3x + 1, OT= 2x + 4. Find
(i)   x
(ii)   RN
(iii)   TE
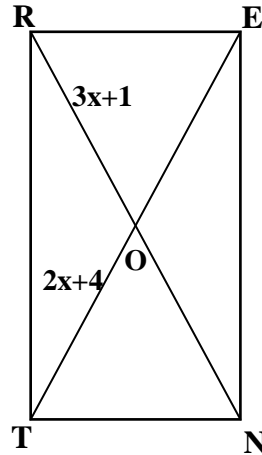
SECTION D

Q.36. Solve for x:

$$5x - 2(2x - 7) = 2(3x - 1) + \frac{7}{2}$$

Q.32. ABCD is a parallelogram in which $\angle DAO = 40°$, $\angle BAO = 35°$ and $\angle COD = 65°$.
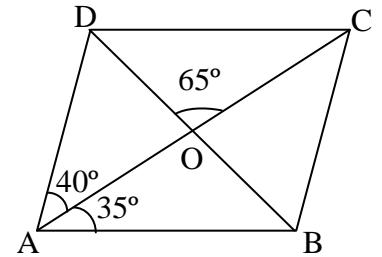
Find

(i) $\angle ABO$ (iii) $\angle ACB$

(ii) $\angle ODC$ (iv) $\angle ABC$

Q.33. (i) If $x + \dfrac{1}{x} = 9$, find $x^2 + \dfrac{1}{x^2}$.

(ii) Show that $= (9a + 5b)^2 = (9a - 5b)^2 + 180\,ab$.

Q.34. An army general wishes to arrange his 10406 men in the form of a square. On doing so he found that 2 men were left. How many men were there in each row?

Q.35. On a particular day the sales (in rupees) of different items of a Baker's shop are given below:

Ordinary bread	Fruit bread	Cakes	Biscuits	Others
320	80	40	120	160

Draw a pie chart (Show all the calculations)

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