SUMMATIVE ASSESSMENT – THIRD TERM

MATHEMATICS

Max. Marks: 100

Std - VIII

Time: 2½ Hrs

I. Choose the correct answer: **5 x 1 = 5**

1. $\frac{100}{15} \times x = 1260$, the value of x _____.

   a) 169 b) 179 c) 189 d) 199

2. _____ lies between the highest and the smallest value in a data set.

   a) mode b) frequency c) histogram d) mean

3. 1088 ÷ 20 = _____.

   a) 53.4 b) 54.4 c) 55.4 d) 56.4

4. The mean of the data, 43, 37, 34, 35, 41, 28, 33, 35, 18, 24, is _____.

   a) 31.8 b) 33.8 c) 32.8 d) 34.8

5. $\frac{169}{50}$ is equal to _____.

   a) 2.38 b) 3.38 c) 4.38 d) 5.38

II. Fill in the blanks with suitable answers: **10 x 1 = 10**

6. A _____ is a circular chart in which the circle is divided into sectors.
7. The value of the observation in the middlemost position is the _____.
8. _____ is the observation which occurs most frequently in a set of given observations.
9. The average of 33 and 34 is _____.
10. 52 × 14 × 12 – 110 = _____.
11. The mode for the data 7, 21, 21, 17, 3, 13, 7, 4, 9, 7, 9 is _____.
12. $\frac{1}{3} \times 261$_____.
13. $\frac{8}{128} \times 100\%$ = _____.
14. The cost of 12 bags is ₹4800. What is the cost of 96 such bags? _____.
15. Area of a trapezium = _____.

III. State whether the following statements are True or False: **5 x 1 = 5**

16. Offers promote sales of the item.
17. The company faces loss by selling items on offers.
18. Offers tempt the consumers to buy more than what is necessary.
19. It is advantageous to buy large quantities of vegetables and fruits when they are available at a discounted price.
20. To compose prices of different weights. We should not compare the prices per unit weight to determine the best buy.

IV. Match the following: **5 x 1 = 5**

21. ₹65 × 2 - ₹213
22. ₹450 × $\frac{3}{2}$ - ₹105
23. ₹60 × $\frac{7}{4}$ - ₹300
24. ₹426 × $\frac{1}{2}$ - ₹675
25. ₹60 × $\frac{250}{50}$ - ₹130

V. Do as Directed: (Any 15) **15 x 3 = 45**

26. Change the discontinuous class intervals to continuous class intervals.

    (10-19), (20-29), (30-39), (40-49), (50-59)

27. The age of 300 workers in a factory are collected and tabulated as shown:

Age in Yrs	≤ 25	≤ 30	≤ 35	≤ 40	≤ 45	≤ 50
No. of Workers	0	45	116	210	275	300

    (i) How many workers are at most 30 years of age?

28. What is a kink? Draw a neat sketch.
29. What is the difference between theHistogram & Frequency polygon?
30. Represent the following data in ungrouped frequency table which gives the number of children in 25 families.

    1, 3, 0, 2, 5, 2, 3, 4, 1, 0, 5, 4, 3, 1, 3, 2, 5, 2, 1, 1, 2, 6, 2, 1, 4.

31. Define Mean.
32. Define Median.
33. The total mass of 6 football players is 360 kg and the mean of another 14 players is 52 kg. Find the mean mass of 20 players.
34. Four numbers have a mean as 7.5, mode as 6 and median as 7. Find the numbers.
35. Find the value.

    (i) 12 – 0.250 = _____.

    (ii) 11.5 – 1 = _____.

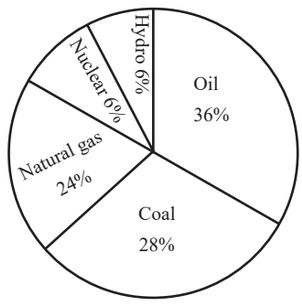
36. Tell a few words about packing with real life examples.
37. Shop A is offering ₹20 off on 1*l* coconut oil with an MRP of ₹250. Shop B is offering 12% off on the same brand of oil with the same MRP. From which shop would you buy?
38. Find the value.

    a) ₹ $70 \times \frac{1}{2}$ = _____.

    b) ₹ $70 \times \frac{250}{50}$ = _____.

    c) ₹ $800 \times \frac{2700}{200}$ = _____.

39. The pie chart gives information on the world's primary energy consumption in 2020. Find the fraction for each type of consumption.



40. Draw a histogram for the given frequency distribution.

Age	41-45	46-50	51-55	56-60	61-65
Frequency	4	9	17	25	15

41. Find the square root. 15376.
42. Evaluate:

    a) $8^3 + 9^3$ = _____ b) $\left(\frac{-3}{5}\right)^3$ = _____

    c) $(1.3)^3$ = _____

VI. Answer the following: (Any 4) **4 x 5 = 20**

43. The following table shows the mode of transport used by 400 students in a school. Represent the following information on the pie chart. Find the angles of the sectors and the function of each mode of transport used.

Mode of Transport	Bus	Bicycle	On foot	Car
No. of students	200	100	80	20

44. A paint company asked a group of students to choose their favourite colour and make a pie chart of their findings. Use the information to answer the following questions.

a) What percentage of students like red colour?

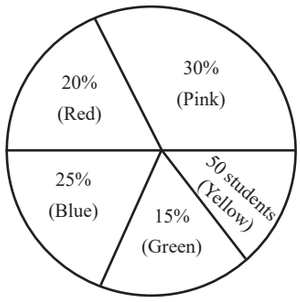
b) How many students like green colour?

c) What fraction of students like blue?

d) How many students did not like red?

e) How many students like pink or blue?

f) How many students were asked to choose their favourite colour?



45. The following table gives the distribution of marks obtained by different classes in various tests. Find the mean, median, and mode.

Marks	15	16	17	18	19	20
Frequency	1	3	7	1	5	3

46. The sizes in GB for 8 computer folders are given as 75, 40, 31, 52, 55, 22, 27 and 67. These folders have to be saved in 128 GB pen drives.

a) Determine the minimum no. of pen drives required.

b) Use the first fit method to save the folders in the pen drives.

47. An online shopping portal sells walnuts for ₹300 for a 200gm packet. However the prices for 2 packets and for 3 packets are advertised as ₹580 and ₹864 respectively. Calculate the saving percentage of the two offers.

VII. Geometry: **1 x 10 = 10**

48. Construct a square whose diagonal is 7.6cm. Find its area.

(or)

Construct a rectangle whose diagonal is 7.5cm and side is 4.5cm.