

Z.P.H.SCHOOL, _____
SUMMATIVE ASSESSMENT -2
VII MATHEMATICS

Name _____

| | | | | | | |
|--------------------|---|----|-----|----|---|-------|
| academic standards | I | II | III | IV | V | TOTAL |
| marks | | | | | | |
| GRADE | | | | | | |

maxmarks:100

I PROBLEM SOLVING: 40 marks

Solve the following problems

1) In a set of four integers, the average of the two smallest integers is 102, the average of the three smallest integers is 103, the average of all four is 104. Which is the greatest of these integers ?

(OR) Maximum day time temperatures of Hyderabad in a week (from 26th February to 4th March, 2011) are recorded as 26°C, 27°C, 30°C, 30°C, 32°C, 33°C and 32°C.

(i) What is the maximum temperature of the week?

(ii) What is the average temperatures of the week?

2). A man sold two cycles for 3000 each, gaining 20% on one and losing 20% on the other. Find his gain or loss percentage on the whole transaction?

(OR) Sushma has a road map with a scale of 1 cm representing 18 km. She drives on a road for 72 km.

What would be her distance covered in the map?

3) Solve the following equations by transposing the terms and check your result ?

i) $14 = 27 - x$

ii) $3x + 5 = 5x - 11$

4) A certain freezing process requires that room temperature be lowered from 40°C at the rate of 5°C every hour. What will be the room temperature 10 hours after the process begins?

5) At what rate per annum will 6360 yield an interest of 1378 in $2\frac{1}{2}$ years?

6) MULTIPLE CHOICE QUESTIONS

i) The median of first 9 natural numbers

- a) 3 b) 4 c) 5 d) 6 ()

ii) The most frequently occurring value for a set of observations is called

- a) mean b) median c) mode d) none ()

iii) Which one are in proportion

- a) 1,2,3,4 b) 3,4,5,6 c) 4,5,6,7 d) 2,3,4,6 ()

iv) X of 10% = 50 then X value

- a) 50 b) 500 c) 25 d) 200 ()

v) A triangle whose all angles are acute is called an _____ triangle

- a) equilateral b) isosceles c) scalene d) right angle ()

vi) The number of medians of a triangle

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

vii) The cost of 6 eggs is 30 Rs then cost of 1 egg is

- a) 50 b) 25 c) 12 d) 5 ()

viii) The product of extremes in 1:2::4:8

- a) 8 b) 2 c) 4 d) 1 ()

ix) The mean of first n natural numbers

- a) $\frac{n(n+1)}{2}$ b) $n(n+1)$ c) $\frac{n+1}{2}$ d) $\frac{n}{2}$ ()

x) The median of first 5 prime numbers

- a) 5 b) 7 c) 11 d) none ()

II REASONING & PROOF**20 marks**

7) Check whether in this square the sum of the numbers in each row and in each column and along the diagonals is the same?.

| | | |
|-----------------|-----------------|-----------------|
| $\frac{6}{13}$ | $\frac{13}{13}$ | $\frac{2}{13}$ |
| $\frac{3}{13}$ | $\frac{7}{13}$ | $\frac{11}{13}$ |
| $\frac{12}{13}$ | $\frac{1}{13}$ | $\frac{8}{13}$ |

(OR) Write the integers between the pairs of integers given below. Also, choose the biggest and smallest integers from them? i) -6,6 ii) 3,-9 iii) 9,-4 iv) 0,-7 ?

8) Observations of a data are 16, 72, 0, 55, 65, 55, 10, and 41. Chaitanya calculated the mode and median without taking the zero into consideration. Did Chaitanya do the right thing? 9) Observe the following tables and find if x is directly proportional?

| | | | | | | | |
|---|----|----|----|----|----|----|---|
| X | 20 | 17 | 14 | 11 | 8 | 5 | 2 |
| Y | 40 | 34 | 28 | 22 | 16 | 10 | 4 |

III COMMUNICATION

10 marks

- 10) i) Write L.H.S and R.H.S of the equation $X + 2Y = 2$? (1 mark)
 ii) Draw a triangle ABC and an exterior angle to it? (1 mark)
 iii) One situation where mean would be an appropriate representative value ? (1 mark)
 iv) One situation where mode would be an appropriate representative value?. (1 mark)
 v) Express 18% in minimum ratio? ($\frac{1}{2}$ mark)
 vi) Write -8 in two integers difference a) -10,2 b) -6,-2 c) 7,-1 d) -6,2 ? ($\frac{1}{2}$ mark)
 vii) Write the decimal fraction between 2 and 3 ? ($\frac{1}{2}$ mark)
 viii) $\frac{8}{15}$ ----- $\frac{2}{3}$ a) \geq b) $<$ c) $=$ d) none ()
 ix) The smallest number in -3,-7,-8,0,-2 is ($\frac{1}{2}$ mark)
 a) -2 b) 0 c) -8 d) -3 ()
 x) $\frac{2}{3}$ of 60 Rs ($\frac{1}{2}$ mark)
 a) 50 b) 40 c) 35 d) 30 ()
 xi) On a number line ----- is the left of -2 ($\frac{1}{2}$ mark)
 a) 0 b) -3 c) 4 d) 2 ()
 xii) Write 190 Gms in Kg ($\frac{1}{2}$ mark)
 a) 1.90 b) 0.00190 c) 0.190 d) 19.0 ()
 xiii) Which diagram shows 180° ($\frac{1}{2}$ mark)
 a) right angle b) straight line c) circle d) parallel lines ()
 xiv) pair of angles $60^\circ, 30^\circ$ represent ($\frac{1}{2}$ mark)
 a) supplementary b) complementary c) transversal d) none ()
 xv) The biggest angle in 1:4:5 triangle ratio ($\frac{1}{2}$ mark)
 a) 60° b) 45° c) 90° d) 80° ()

IV CONNECTIVITY

15 marks

- 11) If we add 7 to twice a number, we get 49. Find the number
 12) In a market Mahesh bought 5kg potatoes if 2 kg potatoes 36Rs then how much he pay to the shop keeper?
 13) a) Write an example of a right angle of your class room?
 b) Write an example of parallel lines of your class room?
 c) Write 256 paise in decimal fraction?
 d) Find the mode of the Ages of players in a cricket team are 25, 26, 25, 27, 28, 30, 31, 27, 33, 27, 29?
 e) $-2 \times \underline{\hspace{2cm}} = 16$

V REPRESENTATION

15 marks

14) Draw a bar graph for the following data. Population of India in successive census years

10 marks

| | | | | | | | |
|------------|------|------|------|------|------|------|------|
| year | 1941 | 1951 | 1961 | 1971 | 1981 | 1991 | 2001 |
| population | 320 | 360 | 440 | 550 | 680 | 850 | 1000 |

(OR) Draw a pie chart for the following data. Time spent by a child during a day

| | | | | |
|----------------|-------|--------|------|--------|
| Time spent for | Sleep | School | Play | Others |
| Time spent | 8hrs | 6hrs | 2hrs | 8hrs |

15) Write the information given in the picture in the form of an equation. Also, find 'x' in the following figure?

5 marks

