SUMMATIVE ASSESSMENT-I, 2013 –14
SUBJECT: MATHEMATICS
CLASS : VIII

TIME : 2½hrs

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M.M.-60

General instructions.

1. *All questions are compulsory.*
2. *The question paper in divided into four sections.*
3. *The question paper contains four sections of 60 marks*
    i.   *Section –A question no. 1-8 carry ½ mark each. (MCQ)*
    ii. *Section –B question no. 9-14 carry 2 marks each.*
    iii. *Section –C question no. 15-24 carry 3 marks each.*
    iv. *Section –D question no. 25-34 carry 3 marks each.*
4. *Internal choice has been given in Section –D only in 2 questions.*
5. *Section-D comprises of one value based questions.*
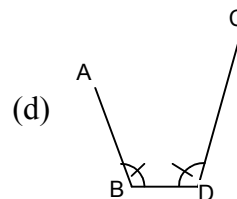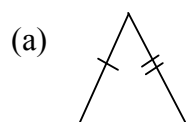
SECTION-A

1. Which of the following is the smallest negative integer?

    (a) -2   (b) -1   (c) -3   (d) 0

2. Which of the following shows three consecutive multiples of 8?

    (a) $8x, (x+8), (x+16)$ (b) $8x, 8(x+1), 8(x+2)$

    (c) $8x, 8x+8, x+16$ (d) $x, (x+8), (x+16)$

3. Which of the following indicates "segments of equal length"

    (a)   (b)   (c)   (d)

4. In a quadrilateral 'Rock' which of the following is a diagonal?

    (a) $\overline{RO}$ (b) $\overline{OK}$ (c) $\overline{OC}$ (d) $\overline{KR}$

5. When a die in thrown list the outcomes of an event of getting 'a prime number'.

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

6. Perfect square number between 15 and 20 is:

    (a) 17   (b) 16   (c) 18   (d) 19

7. $\sqrt[3]{\dfrac{216}{512}} =$

    (a) $\dfrac{6}{18}$ (b) $\dfrac{5}{3}$ (c) $\dfrac{6}{8}$ (d) $\dfrac{4}{6}$

8. 20% of 3.4 is.

SECTION-B

9. Simplify $\dfrac{1}{2} \times \dfrac{1}{3} + \dfrac{1}{4} \times \dfrac{1}{3}$ by using appropriate property.

10. Write the next step for the solution of linear equation $\dfrac{x}{3} + \dfrac{7}{2} = \dfrac{3}{2}$.

11. What is regular polygon? State the name of a regular polygon of 6 sides.

12. Following are the marks (out of 50) obtained in mathematics of 10 students.

    21, 40, 22, 21, 11, 30, 21, 9, 49 which data has the maximum 'Frequency'?

13. Is 45 a perfect square? Write with reason.

14. Convert 2 yrs 3 month into years.

SECTION-C

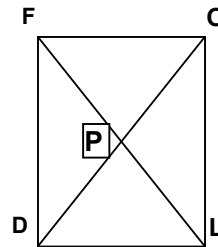15. Multiply $2\dfrac{1}{3}$ by the reciprocal of $-\dfrac{7}{6}$

16. Represent $\dfrac{-3}{7},\ \dfrac{12}{5}$ on the number line.

17. Nine is added to two times a number gives four. Represent it by a linear equation in one variable. Also find solution.

18. Solve equation : $\dfrac{4x+8}{5x+8} = \dfrac{5}{6}$

19. F O L D is a rectangle. Its diagonals meet at pt. p find x,

    If it $DO = 2x+4,\quad FL = 3x+1$

20. How many sides does a regular polygon have if the measure of an exterior angle is 45^0.

21. The daily income of a group of factory workers is given in the following table.

Daily Income (In Rs.)	Number of Worker
100 - 125	45
125 - 150	35
150 - 175	35
175 - 200	55
200 - 225	30
225 - 250	50

   i. What is the size/width of each class Interval ?

   ii. Which class has the least frequency ?

   iii. What is the upper limit of class interval 175-200 ?

   iv. Which class intervals have equal frequencies ?

22. Find the square root by division method 1024.

23. Find the smallest number by which 72 must be multiplied to obtain a perfect cube.

24. Suzaine purchases a vanity box for rs. 5600 including 8% vat. Find the price before vat was added.

SECTION-D

25. Write five rational numbers between $\frac{-1}{2}$ and $\frac{3}{4}$

26. Shriya is twice as old as Arjun. Five years ago her age was three times Arjun's age. Find their present ages.

27. Find the angle measure x in the following figure.
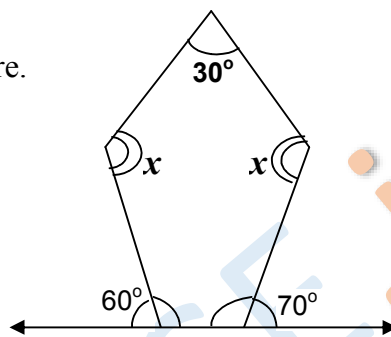
28. Construct Quadrilateral SONG where SO = 4 cm, ON = 6 cm, NG = 5 cm, GS = 5.5cm & SN = 7cm

29. Choice of food for a group of people is given in the following table. Draw a pie chart.

Favorite food item	No of People
Daal Baati	40
Paneer Tikka	30
Masala Dosa	25
Burger	25
Total	120

Which type of food should be taken during adolescence?

30. Construct a frequency distribution table for the data on marks of 20 college students of a class (out of 100) using class intervals as 30-35, 35-40 and 50 on.

31. Write a Pythagorean triplets using when the smallest member is 9.

OR

There are 2401 students in a school. P.T. teacher wants them to stand in rows & columns such that the no. of rows to equal to the no. of columns. Find the number of rows.

32. In a right triangle TRY $\angle R = 90^0$ If TR = 8 cm, RY = 6 cm find TY

33. Find the cube root of 13824 by prime factorization method.

34. Find CI on Rs. 12500 for 2yrs at 12% per annum compounded annually.

OR

The population of a place increased to 54000 in 2003 at a rate of 5% per annum. What would be its population in 2006 ?