SUMMATIVE ASSESSMENT - I
MATHEMATICS
SET-B

Class: VII   Maximum Marks: 90
Date: 7.9.2015   Time allowed: 3 hours

General Instructions:

- **This question paper contains 26 questions and 4 printed pages.**
- **All the questions are compulsory.**
- **Marks for each question are indicated against it.**

1   a.   The predecessor of -7 is _____.   1
         i.   6   ii. -6   iii. 8   iv. -8

    b.   The common end point where two rays meet to form an angle is called _____.   1
         i.   vertex   ii. arm   iii. ray   iv. segment

    c.   Multiplicative inverse of $1\frac{3}{8}$ is _____.   1
         i. $\frac{8}{3}$ ii. $\frac{11}{3}$ iii. $\frac{8}{11}$ iv. $\frac{1}{8}$

    d.   Linear pair of angles are _____.   1
         i.   complementary angles   ii. supplementary angles
         ii.   reflex angles   iv. complete angle

    e.   If a, b and c are integers, then a x (b + c) = _____   1
         i.   a x b + c   ii. a x b x c   iii. a x b + a x c   iv. a x b – a x c

    f.   A _____ is a plane figure which can be folded to form a solid shape.   1
         i.   sketch   ii. net   iii. cube   iv. circle

    g.   The standard form of $\frac{35}{-33}$ is _____.   1
         i. $\frac{3}{-5}$ ii. $\frac{-3}{5}$ iii. $\frac{-33}{35}$ iv. $\frac{3}{5}$

    h.   The sum of the lengths of any two sides of a triangle is always _____ to/   1
         than the third side.
         i.   smaller   ii. greater   iii. equal   iv. negative

    i.   There are 4 cups with a marble in one of them. Find the probability of guessing the   1
         right one in one try.
         i.   ½   ii. $\frac{1}{14}$ iii. $\frac{1}{24}$ iv. ¼

    j.   Identify the odd one out.   1

         i.   Isosceles triangle
         ii.   Equilateral triangle
         iii. Scalene triangle
         iv.   Obtuse triangle

The number of faces in a pentagonal prism is _____
i. 5   ii. 2   iii. 10   iv. 7   1

$\frac{0}{-5}$ is a rational number which is _____.   1

i. Positive
ii. negative
iii. either positive or negative
iv. neither positive nor negative

n. The sum of $\left| 2 + 3 \right| + (-5)$ is _____.   1
i.   10   ii. 5   iii. 0   iv. -51

o. The number of edges of a tetrahedron is _____.   1
i.   9   ii. 6   iii. 12   iv. 8

p. The highest power of the variable in a linear equation is _____.   1
i.   1   ii. 2   iii. 0   iv. 3

q. $1.8 + 16.03 + + 2.985 =$ _____.   1
i. 19.99   ii. 19.888   iii. 20.815   iv. 20.995

r. The number of possible equations of the solution $a = 5$ are _____.   1
i.   1   ii. 2   iii. 3   iv. infinite

s. The number of times an observation occurs in a data is called its _____.   1
i.   range   ii. frequency   iii. rawdata   iv. average

t. If $x - 2 = 2x - 6$, the value of x is _____.   1
i.   3   ii. 2   iii. 6   iv. 4

2. At Shimla, temperature was -4^{0}C on Monday and then it dropped by 2^{0}C on Tuesday. What was the temperature of Shimla on Tuesday?   2
On Wednesday, it rose by 3^{0}C. What was the temperature on Wednesday?

3. Simplify: 2
$(\frac{5}{7} \div \frac{25}{42})$ of $(\frac{5}{13} + \frac{6}{7})$

4. Frame two equations for the solution n= -6   2

5. Draw the nets of: 2
a. a cone.
b. a triangular pyramid.

6. The sum of three consecutive numbers is 36. Find the numbers.   2

7. The manufacturing cost of a pair of shoes is Rs 346.72. How much will it cost for 15 such pairs of shoes?   2

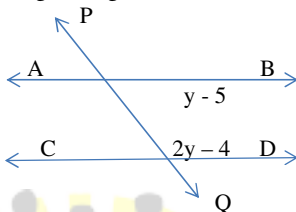9. Represent $\frac{-3}{5}$ on a number line.   2

10. A deck of ten cards contains one card with each of the following numbers: 2
   1 2 3 4 5 6 7 8 9 10
   One card is selected at random from the deck. Find the probability of selecting
   each of the following:
   a. A number less than 5.
   b. A multiple of 3.

11. Find the value of y in the given figure: 2

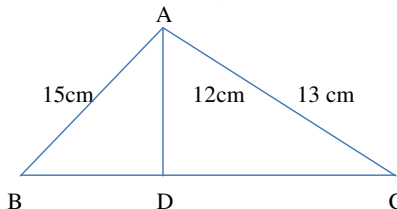12. Simplify the given mathematical expression using BODMAS.   3
   $45 - [\ 43 - \{ \ 9 - 4 \ (\ 3 - 8 \div 2 + 6) \ \} \ ]$

13. There are 45 people living in a building. Out of these, $\frac{1}{3}$ are men, $\frac{1}{5}$ are women and   3
   the rest are children. Find the number of men, women and children living in the
   building.

14. 73 bags of cement weigh 4106.25kg. Find the weight of 100 such bags of cement.   3

15. In Δ PQR, measure of angle P = 80^0 and Q = 65^0. Find the measure of the exterior   3
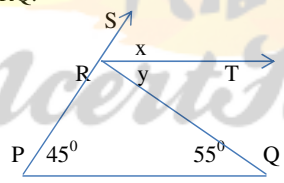   angle at vertex R.

16. A dice was thrown 20 times and the following were the outcomes: 3
   2, 3, 3, 2, 2, 5, 4, 6, 5, 1, 4, 2, 6, 6, 1, 6, 4, 3, 6
   Prepare a frequency table and calculate the mode of the above data.

17. In Δ ABC, AD $\perp$ BC. Find the length of BC.   3

18. Ravi donates 0.3 part of his salary every month to a charitable trust. If his monthly   3
   salary is Rs 20,500, how much amount will he donate in one year? Which value
   does Ravi show by this gesture?

20. Shivam and Naveen donate some money to a flood relief fund. The amount donated by Naveen is Rs 375 more than that donated by Shivam. If the total money paid by them is Rs 1175, find the amount of money donated by Shivam. How else can you help flood victims?   3

21. Name the solids: 3
    a. having six square faces.
    b. having four rectangular faces.
    c. having two edges and no vertex.

22. Rohan participated in a race. He needed to cover a distance of 560m in the race. In each step, he covered 0.5m. After covering 347m he fell. How many steps were left to complete the race.   4

23. Subhash is three years older than his brother Vijesh. Six years ago Subhash's age was four times the age of Vijesh. Find their present ages.   4

24. In the given figure, PQ ║ RT. Find the value of x and y. Also find the measure of angle SRQ.   4

25. The wing span of different species of birds is as follows: 4
    Blue Jay = $\frac{31}{100}$ m, Golden Eagle = 2 ¼ m, Albatross = 3 ½ m and
    Sea Gull = $1\frac{1}{5}$ m.

    a. How much longer is the wingspan of an Albatross than the wingspan of a blue jay?
    b. How much shorter is the wing span of the Sea Gull than the wingspan of a Golden Eagle?

26. The following data shows the sale of watches and sunglasses in a store during six months. Draw a double bar graph for the given data. Also find in which month was the ratio of sale of watches to sun glasses 3:4?   4

	Jan	Feb	March	April	May	June
Watches	500	450	750	250	350	100
Sunglasses	750	600	550	700	275	350