V & C Patel English School
Half Yearly Exam

Max.Marks: 80
Std: VII
Date: 20-09-2017
Subject: Mathematics
Time: 3 hrs.

General Instructions:

Section A: Q.No. 1 to 10 carry 1 mark each
Section B: Q.No. 11 to 20 carry 2 marks each
Section C: Q.No. 21 to 30 carry 3 marks each
Section D: Q.No. 31 to 35 carry 4 marks each

Section-A

1. Find the value of 1487 x 327 + (-487) x 327
2. Write the additive identity and the multiplicative identity for integers.
3. Which is larger $\frac{3}{4}$ or $\frac{5}{12}$?
4. Divide 0.48 by 100
5. Find the mode of the numbers: 2, 2, 2, 3, 3, 4, 5, 5, 6, 6, 8
6. Solve : x + 4 = -2
7. Define complementary angles with an example.
8. _____ of a triangle is equal to the sum of its interior opposite angles.
9. A basket is full of apples, oranges and mangoes. If 50% are apples, 30% are oranges then what percent are mangoes?
10. Are 30, 40, 45, 60 in proportion?

Section-B

11. Using suitable property, find the product : (-41) x 102
12. Calculate $\frac{2}{3}$ of a day.
13. Find the median of the data : 24, 36, 46, 17, 18, 25, 35
14. Set up an equation for the following statements :
    (i) The number x divided by 4 gives 3
    (ii) Five times a number p is 32
15. The sum of two consecutive numbers is 53, find the numbers.
16. Find the angle which is equal to its supplement.
17. Verify by drawing a diagram if the median and altitude of an isosceles triangle can be same.
18. Explain SAS Congruence criterion with an example.
19. In a fabric, cotton and synthetic fibres are in the ratio of 2:3. What is the percentage of cotton fibre in the fabric?
20. The cost of a flower vase is 120 rupees. If the shopkeeper sells it at a loss of 10%, find the price at which it is sold.

Section-C

21. 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?
22. Snehi donates 20,000 rupees to a school, the interest is 10% per annum which is to be used for awarding 5 scholarships of equal value every year. Find the amount of each scholarship. What values are depicted here?
23. A carton contains 40 boxes of nails and each box weighs $3\frac{3}{4}$ Kg. How much would a carton of nails weigh?
24. If the cost of a book is 25.75 rupees, find the cost of 24 such books.
25. A dice is thrown 200 times and the outcomes are noted as shown below:

Outcome	1	2	3	4	5	6
Frequency	35	30	31	28	37	39

If a dice is thrown at random, find the probability of getting an :

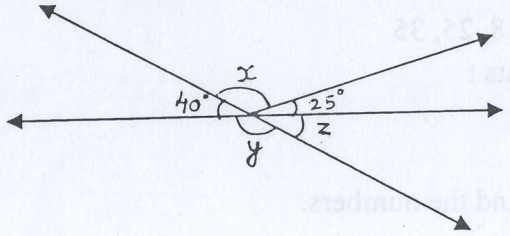
(i) Even number

(ii) Odd number

26. Rohan's father's age is 5 years more than three times Rohan's age. Find Rohan's age, if his father is 44 years old.
27. Solve the riddle:

I am a number,
Tell my identity!
Take me seven times over
And add a fifty!
To reach a triple century
You still need forty!

28. Find the values of x, y and z



29. Is there a triangle whose sides have lengths 3 cm, 6cm and 7 cm? Justify.
30. In ΔBAC, AB =AC and AD is the bisector of ∠BAC.

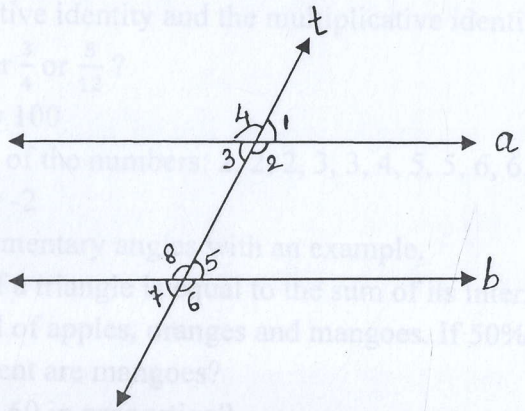
(i) State three pairs of equal parts in ΔADB and ΔADC

(ii) Is ΔADB ≅ ΔADC? Give reasons.

(iii) Is ∠B = ∠C? Give reasons.

Section-D

31. Solve :
    (i) $2x + \frac{5}{2} = \frac{37}{2}$
    (ii) $16 = 4 + 3(t + 2)$
32. Convert
    (i) 3 Kg 8 g in Kg
    (ii) 85 mm in cm
    (iii) 5 ml in L
    (iv) 7 paise in rupees
33. (i) The population of a city decreased from 25,000 to 24,500. Find the percentage decrease.
    (ii) Meena saves 400 rupees from her salary. If this is 10% of her salary, what is her salary?
34. In the given figure, identify



    (i) the pairs of corresponding angles
    (ii) the pairs of alternate interior angles
    (iii) the pairs of interior angles on the same side of the transversal
    (iv) the vertically opposite angles
35. The results of pass percentage of class X and XII in C.B.S.E. examination for 5 years are given in the following table :

Year	2011-12	2012-13	2013-14	2014-15	2015-16
X	90	95	90	80	98
XII	95	80	85	90	95

Draw a double bar graph choosing an appropriate scale.
What do you infer from this graph?

BEST OF LUCK