MATHEMATICS ASSIGNMENT (Part-I)
CLASS VII
APS Ranikhet

Note: Section A is of 15 marks (1 marks each question), Section B is of 20 marks (2 marks each question), Section C is of 30 marks (3 marks each question) and Section D is of 35 marks (5 marks each question).

SECTION-A

1. Find 15 % 0f 250.

2. Solve: $2 - \dfrac{3}{5}$

3. Find $\dfrac{1}{2}$ of 12

4. (-12) X (-11) X (10) = _____

5. Solve equation   6z + 10 = -2

Fill in the blanks:-

6. Number of medians in a triangle = _____ .
7. Sum of interior opposite angles = _____ .
8. The sum of any two sides of a triangle is _____ than third side.
9. If two angles are supplementary, then the sum of their measures is _____ .
10. Among two congruent angles, one has a measure of 80^0 , the measure of the other angle is _____ .

Classify true and false statement from the following :

11. The mode is always one of the numbers in a data.
12. The mean is one of the numbers in a data.
13. Two acute angles can be complementary to each other.
14. We can have a triangle with two right angles.
15. Two right angles can form a linear pair.

SECTION – B

16. Write a pair of integers whose difference is -10.

17. Evaluate [(-36) ÷ 12] ÷ 3

18. Arrange $\dfrac{1}{5}, \dfrac{3}{7}, \dfrac{7}{10}$ in descending order.

19. Multiply and express as a mixed fraction : $7 \times 2\dfrac{1}{4}$

20. How much less is 28 km than 42.6 km?

21. Find ratio of:

     (a) Rs 5 to 50 paise   (b) 30 days to 36 hours

22. (a) A coin is flipped to decide which team starts the game. What is the probability that your team will start?

23. A shopkeeper sells mangoes in two types of boxes, one small and one large. A large box contains as many as 8 small boxes pluse 4 loose mangoes. Set up an equation which gives the number of mangoes in each small box. The number of mangoes in a large box is given to be 100.

24. The length of two sides of a triangle are 14 cm and 17 cm. Between what two measures should the length of the third side fall?

25. Give any two real examples for congruent shapes.

SECTION – C

26. The enrolment in a school during six consecutive years was as follow:
             1555, 1670, 1750, 2013, 2540, 2820
        Find the mean enrolment of the school for this period.

27. A rectangular sheet of paper is $12\dfrac{1}{2}$ cm long and $10\dfrac{2}{3}$ cm wide. Find its perimeter.

28. Sherya reads a book for $1\dfrac{3}{4}$ hours every day. She reads the entire book in 6 days. How many hours in all were required by her to read the book ?

29. A car runs 16 km using 1 litre of petrol. How much distance will it cover using $2\dfrac{3}{4}$ litres of petrol.

30. Find the mean of first five natural numbers.

31. Write equations for the following statements:

   (a) 2 subtracted from *x is 8*.

   (b) Three-fourth of *t* is 15.

   (c)If you take away 6 from 6 times   *y*, you get 60.

32. Simplify the following equations:

    (a) $2(n +4) = 12$ (b) $4 + 5(p - 1) = 34$

33. (a) Find the angle which is equal to its supplement.

    (b) Find the value of x.
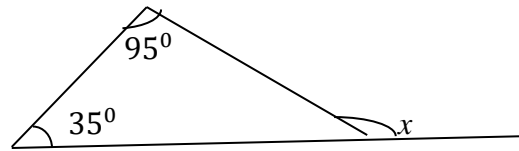
34. A tree is broken at a height of 5 m from the ground and its top touches the ground at a distance of 12 m from the base of the tree. Find the original height of the tree.

35. If $\triangle ABC \equiv \triangle FED$ under the correspondence ABC $\leftrightarrow$ FED, write all the corresponding congruent parts of the triangles.

SECTION – D

36. (a) Shyam bought 5 kg 300g apple and 3 kg 250 g mangoes. Sarala bought 4 kg 800 g oranges and 4 kg 150 g bananas. Who bought more fruits

    (b) Raj solved $\frac{2}{7}$ part of an exercise while Reshma solved $\frac{4}{5}$ part of it. Who solved lesser part? By how much?

37. Solve the following:

    (a) Prateek says that he has 7 marbles more than five times the marbles Divit has. Prateek has 37 marbles. How many marbles does Divit have?

    (b) Laxmi's father is 49 years old. He is 4 year older than three times Laxmi's age. What is Laxmi's age?

38. (a) The score in mathematics test(out of 25) of 15 students is as follows:

       19,25, 23, 20, 9, 20, 15, 10, 5, 16, 25, 20, 24, 12, 20

       Find the mode and median of this data.

    (b) A vehicle covers a distance of 43.2 km in 2.4 litres of petrol. How much distance will it cover in one litre of petrol?

39. (a) Find the perimeter of the rectangle whose length is 40 cm and a diagonal is 41 cm.
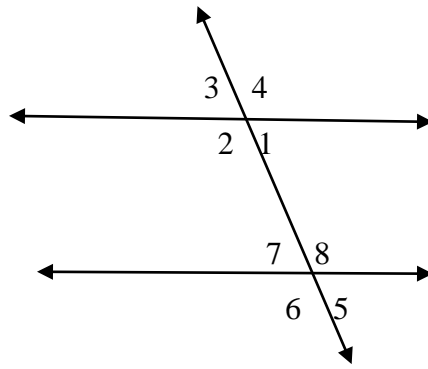
    b) Draw rough sketches of the following:
    (i) In $\triangle ABC$, BE is a median.
    (ii) In $\triangle XYZ$, YL is an altitude in the exterior of the triangle.

40. In the adjoining figure, identify:

(i)   the pairs of corresponding angles

(ii) the pairs of alternate interior angles

(iii) the pairs of co-interior angles

(iv) the pairs of vertically opposite angles.

41. (a) The population of a city decreased from 25,000 to 24,500. Find the percentage decrease.

(b) Out of 15,000 voters in a constituency, 60% voted. Find the percentage of voters who did not vote. Can you now find how many actually did not vote?

42. The performance of a student in 1st term and 2nd Term is given. Draw a double bar graph choosing appropriate scale and answer the following:

Subject	English	Hindi	Maths	Science	S. Science
1st Term (M.M. 100)	67	72	88	81	73
2nd Term (M.M. 100)	70	65	95	85	75

(i)   In which subject, has the child improved his performance the most?

(ii) In which subject is the improvement the least?

(iii) Has the performance gone down in any subject?