TIME 3 HOURS   **MAXIMUM MARKS – 80**
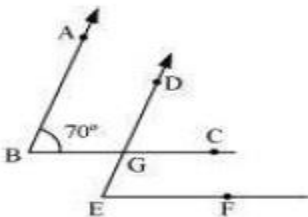
INSTRUCTIONS-

1. The question paper contains 30 questions divided into four sections A, B, C,D .

2. Section A has 6 questions of 1 mark each. Section B has 6 questions of 2 marks each .

   Section C has 10 questions of 3 marks each and Section D has 8 questions of 4 marks each.
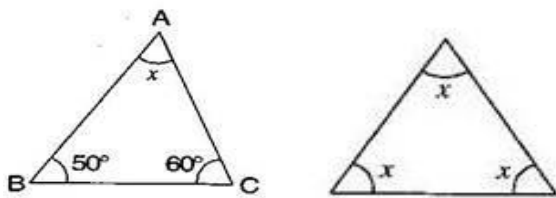
SECTION A

1. In a quiz, positive marks are given for correct answers and negative marks are given for incorrect

   Answers . If jack's scores in five successive rounds were 25, – 5, – 10, 15 and 10, what was his total at

   The end?

2. What are the possible outcomes on tossing a coin?

3. What is the angle between south and west direction ?

4. What is the reciprocal of 2?

5. How will you represent when x is added to 3 gives 7 ?

6. 2 : 5 = ____%

SECTION B

7. Sailin plants 4 saplings in a row in her garden. The distance between two adjacent saplings is $\frac{3}{4}$ m.

   Find the distance between the first and the last sapling.

8. Solve : 2y + 7 = 87

9. In the given figure, the arms of two angles are parallel.If ∠ABC = 70°, then find   (i) ∠DGC   (ii) ∠DEF

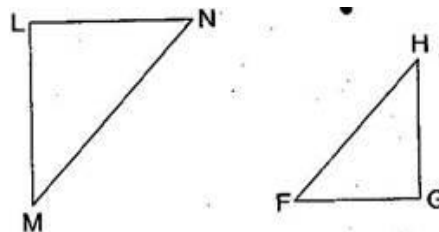10. Find the value of unknown x in the following diagrams:

11. Which congruence criterion do you use in the following?

Given: $\angle MLN = \angle FGH$, $\angle NML = \angle HFG$

$ML = FG$
So $\triangle LMN \cong \triangle GFH$

12. What is the probability that a student chosen at random out of 3 girls and 4 boys is

a) a boy   b) a girl

SECTION C

13. .A cement company earns a profit of Rs. 8 per bag of white cement sold and a loss of Rs. 5 per bag of grey cement sold. The company sells 3,000 bags of white cement and 5,000 bags of grey cement in a month. What is its profit or loss?

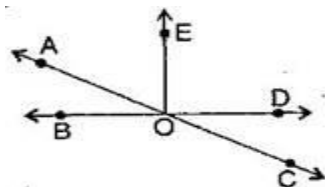14. The diagonals of a rhombus measure 16 cm and 30 cm. Find its perimeter.

15. If Meena gives an interest of Rs. 45 for one year at 9% rate p.a. What is the sum she has borrowed?

16. Solve the following equations:

i) $7m + \dfrac{19}{2} = 13$

ii) $3 - 2(2 - y) = 7$

17. In the adjoining figure, name the following pairs of angles:

1. Obtuse vertically opposite angles.
2. Adjacent complementary angles.
3. Equal supplementary angles.

18 In a class of 40 students $\frac{1}{5}$ of the total number of students like to study English, $\frac{2}{5}$ of the total like to

Study mathematics and the remaining students like to study science.

a) How many students like to study English?

b) How many students like to studyMathematics.

19. The weight (in kg) of 15 students of a class are:

38, 42, 35, 37, 45, 50, 32, 43, 43, 40, 36, 38, 43, 38, 47

(i) Find the mode and median of this data.

(ii) Is there more than one mode?

20. If ΔABC ≅ΔFED under the correspondence ABC ↔FED, write all the corresponding congruent parts of the triangles.

21. Find:

(a) 1% of 1 hour

(b) 20% of Rs. 2500

22. Replace the blank with an integer to make it a true statement:

(a) _____× (−8) = −56
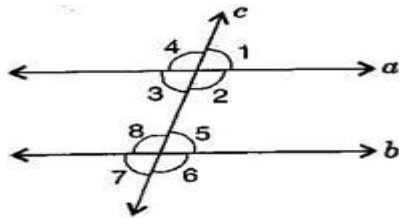
b) _____÷   4   = -3

SECTION D

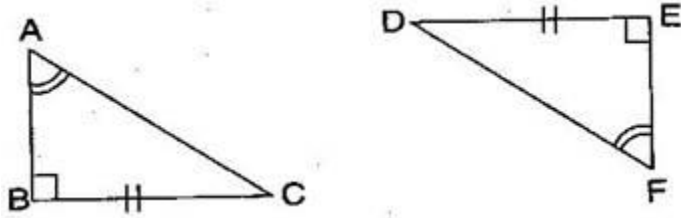23.   Find :   a) 100.01x 1.1   b) 38.53 ÷ 1000

24.   Amina buys a book for Rs. 275 and sells it at a loss of 15%. How much does she sell it for?
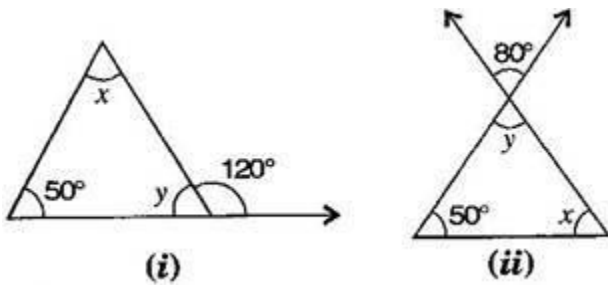
25. In the adjoining figure, identify:

a) the any one pair of corresponding angles.

b) the any one pair of alternate interior angles.

c) the any one pair of interior angles on the same side of the transversal.

d)   the any one pair of vertically opposite angles.

26. Explain, why ΔABC ≅ ΔFED.

27. Find the values of x and y in the following diagrams:

(i)   (ii)

28. In a class test containing 10 questions, 5 marks are awarded for every correct answer and (–2)

marks are awarded for every incorrect answer and 0 for questions not attempted.

(i) Mohan gets four correct and six incorrect answers. What is his score?

(ii) Reshma gets five correct answers and five incorrect answers, what is her score?

29. The height of 10 girls were measured in cm and the results are as follows:

135, 150, 139, 128, 151, 132, 146, 149, 143, 141

(i) What is the height of the tallest girl?

(ii) What is the height of the shortest girl?

(iii) What is the range of data?

(iv) What is the mean height of the girls?

30. Laxmi's father is 49 years old. He is 4 years older than three times Laxmi's age. What is Laxmi's age?