



**INDIAN SCHOOL AL MAABELA**  
**(ISO 9001-2015 CERTIFIED INSTITUTION)**  
**YEARLY EXAMINATION - 2019 -2020**  
**MATHEMATICS (SAMPLE QUESTION PAPER)**

**ISAM/FR/MDL/QP/02**

**CLASS: VII**

**Max. Marks: 80**

**Time: 3 Hours**

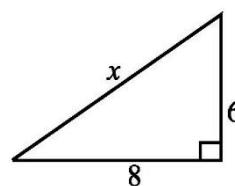
**General Instructions:**

- (i) All questions are compulsory.
- (ii) The question paper consists of 40 questions divided into four sections A, B, C and D.
- (iii) Section A comprises of 20 questions of 1 mark each, Section B comprises of 6 questions of 2 marks each, Section C comprises of 8 questions of 3 marks each and Section D comprises of 6 questions of 4 marks each.
- (iv) There is no overall choice. However, an internal choice has been provided in two questions of 1 mark each, two questions of 2 marks each, three questions of 3 marks each, and three questions of 4 marks each. You have to attempt only one of the alternatives in all such questions.
- (v) Use of calculators is not permitted.

**SECTION A**

**I. (Q.1 – Q.10) Choose the correct answer from the options given.**

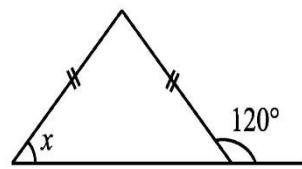
1.	The numerical coefficient of $y$ in expression $8 - 4xy + y^2$	1					
a)	1	b)	- 4	c)	- 4x	d)	8
2.	The order of rotational symmetry in a scalene triangle is -----	1					
a)	2	b)	3	c)	4	d)	none of these
3.	The probability of picking an even number from the set of numbers from 1 to 11 is -----.	1					
a)	$\frac{1}{2}$	b)	$\frac{5}{11}$	c)	$\frac{6}{11}$	d)	$\frac{3}{10}$
4.	The number of edges in a right rectangular prism is -----	1					
a)	4	b)	6	c)	8	d)	12
5.	The product $\frac{3}{7} \times \frac{27}{343}$ equals -----	1					
a)	$(\frac{3}{7})^3$	b)	$(\frac{3}{7})^4$	c)	$(\frac{3}{7})$	d)	$(\frac{3}{7})^{-4}$
6.	One- fourth of a number plus 3 gives 4. The number is -----						
a)	16	b)	12	c)	4	d)	1
7.	The angles of a triangle are in the ratio 1:2:3. The measure of the smallest angle is-----	1					
a)	$90^0$	b)	$30^0$	c)	$45^0$	d)	$60^0$
8.	Triangle construction of definite size is not possible for -----	1					
a)	SAS	b)	ASA	c)	AAA	d)	SSS
9.	Find $x$ :	1					
a)	10	b)	9	c)	12	d)	3
10.	The ratio 0.4: 0.6 is-----	1					
a)	4:5	b)	3:2	c)	5:4	d)	2:3



**(Q.11- Q.20) Fill in the blanks.**

11. The equation for the statement “3 subtracted from x gives 8” is -----

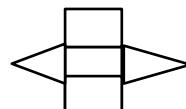
12. What is  $\angle X$  in the given figure?



13. The radius of a circle when circumference is 44 cm is -----

14. Range of the data 10, -9, 12, -3, 18, -5 is -----

15. The solid that can be formed using the net shown is -----



16. Area of triangle whose base 15 cm and altitude 6 cm is -----

17. The value of  $(-1)^{57}$  is -----

18. The sum of  $-7xy + 4xy$  is -----

19. The perimeter of square of side 2.5 m is -----

OR

The value of expression  $4m - 3$  when  $m = -2$  is -----

20. The area of circular button of radius 7 cm is -----

OR

A quadrilateral with only two lines of symmetry is -----

**SECTION B**

21. The perimeter of a plot is given by the expression  $(7x + 12)$  m. If  $(7x - 8)$  m of the boundary is fenced, what length of the boundary is not fenced? 2

22. A crate contains 400 apples, 8 dozen apples were found spoiled. Find the percentage of good apples in the crate. 2

23. Find  $x$ :  $\left(\frac{10}{13}\right)^8 \times \left(\frac{10}{13}\right)^5 \times \left(\frac{10}{13}\right)^2 = \left(\frac{10}{13}\right)^{3x}$  2

24. The sum of two consecutive numbers is 53. Find the numbers. 2

25. The mean score of a cricketer in five innings is 56.8. His scores in five successive innings are 56, 54, 58, 70 and  $x$  runs respectively. Find  $x$ . 2

OR

Express the number  $\frac{216}{343}$  in exponential form.

26. A room measures 12 m  $\times$  9 m. The floor of the room is to be covered by marble tiles measuring 45 cm by 30 cm. How many tiles are needed? 2

OR

A garment store bought 50 shirts at the rate of ₹400 per shirt and sold them for ₹18400. Find his profit or loss.

## SECTION C

27. Construct a right-angled triangle DEF in which  $DF = 8.7$  cm,  $ED = 4.2$  cm and  $\angle E = 90^\circ$ . 3

28. A road 2m wide is constructed all around outside a circular garden of radius 35m. Find the area of the road. (Take  $\pi = \frac{22}{7}$ ) 3

29. A ship leaves a port and travels 12 km due east. Then it turns and travels 9 km due north. How far is the ship from the port? 3

30. What should be added to  $3x^2 + 3xy - 2y^2$  to get  $5x^2 + 2xy + 3y^2$ ? 3

31. The marks scored in a terminal exam by 11 students of class VII A for mathematics is as follows: 30, 53, 92, 63, 100, 80, 53, 47, 78, 21, 65. Find the mean, median & mode of this data. 3

32. If ₹ 250 amounts to ₹285 in 2 years, find the rate percent per annum. 3

OR

Find the cost of carpeting a 25 m long and 12 m broad hall with a 60 cm wide carpet at the rate of ₹15 per m.

33. Simplify: 
$$\frac{2^5 \times 3^4 \times 16}{3^2 \times 64}$$
 3

OR

Construct a triangle PQR, given that  $QR = 6.5$  cm,  $\angle Q = \angle R = 60^\circ$

34. Sunil is 48 years old. He is 7 years less than 5 times his daughter's age. What is his daughter's age? 3

OR

John deposited ₹5500 in a finance company which pays 14% interest per year. Find the amount he will receive after 3 years.

## SECTION D

35. The table shows Arun & Sanjay's test scores. The tests were marked out of 20. 4

	English	Math	Science	History	Geography	Hindi	Art
Arun	20	7	12	14	16	18	11
Sanjay	17	13	18	9	19	10	8

Draw a double bar graph to compare their results.

36. Find the cost price of a watch if the selling price is ₹825 and the loss is 25%. 4

37. Simplify the following expressions and find their values for  $x = 2$  and  $y = -1$  4

(i)  $2(x - 3) + 4y + 3(x - y)$

(ii)  $x^2 + y^2$

38. A wooden pole fixed in the ground, breaks at a point and falls down such that it touches the ground at a distance of 6m away from its base. If the point where it broke is 2.5 m from the ground, what was the actual height of the pole? 4

OR

Karan scored 66 out of 75 in Science and 47 out of 50 in Mathematics. In which subject did he perform better?

39. Simplify:

$$\frac{12^4 \times 9^3 \times 4}{6^3 \times 8^2 \times 27}$$

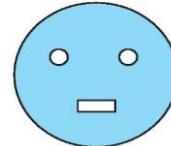
4

OR

The sides of a rectangular plot are in the ratio 5:3. The area of the plot is  $960\text{m}^2$ . Find the cost of fencing the plot with barbed wire at the rate of ₹ 3.50 per m.

40. From a circular card sheet of radius 14 cm, two circles of radius 3.5 cm and a rectangle of length 3 cm and breadth 1cm are removed. (as shown in the adjoining figure). Find the area of the remaining sheet.

4



OR

From the sum of  $3x - y + 11$  and  $-y - 11$ , subtract  $3x - y - 11$ .