

JEM FOUNDATION SCHOOLS
FINAL EXAMINATION (SESSION-2018-19)

CLASS:-VII

TIME :- 3HOURS

SUB. :- MATHEMATICS

F.M.:-80

GENERAL INSTRUCTIONS:-

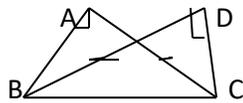
There are four sections and all question are compulsory

- i) Section A each question carries 1 mark.
- ii) Section B each question carries 2 marks
- iii) Section C each question carries 3 marks
- iv) Section D each question carries 4 marks

SECTION A

[1X6=6]

1. If a:b are in the ratio then 'a' is called as first term or -----.
2. How can you calculate Amount?
3. In ΔABC . $\angle A = 35^\circ$ and $\angle B = 65^\circ$,find the measure of $\angle C$.
4. In the figure state the property of congruence



5. Write the empirical formula of mode .
6. Find the mode of the data- 10,8,4,7,8,11,8,8,6,15

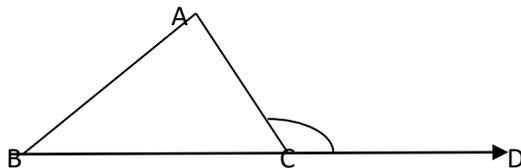
SECTION B

[2X5=10]

7. Subtract $-(3x - 9y + 1)$ from $(6y - 4y)$
8. Find the each angle of an equilateral triangle .
9. Calculate the SI for Rs 6400 for 3 years at the rate 6% pa.
10. Find the gain or loss % if CP = Rs 2400 and SP =Rs 2592
11. If $\frac{x-1}{x+1} = \frac{7}{9}$,then find x .

SECTION C

12. Find the product of $(5x + 7) (3x + 4)$
13. Construct a ΔABC in which base BC =4.5 cm, $\angle B = 90^\circ$ and hypotenuse AC = 5.8 cm.
14. Find three consecutive positive even integers whose sum is 90.
15. Find the simple Interest on Rs 4500 at 8% pa for 73 days also calculate the amount.
16. In ΔABC $\angle A = 70^\circ$, $\angle B = 35^\circ$,then find $\angle ACD$.



17. Find the mean of first seven even natural numbers.
18. Find the median for the following frequency distribution

Marks obtained (xi)	17	20	22	15	30	25
Number of students (fi)	5	9	4	3	10	6

19. Draw ΔABC and ΔPQR such that they are equal in area but not congruent.

20.i) Find the value of x if $(\frac{2}{3})^{-5} \times (\frac{2}{9})^9 = (\frac{2}{3})^{8x}$

ii) Write in standard form 32.63×10^4

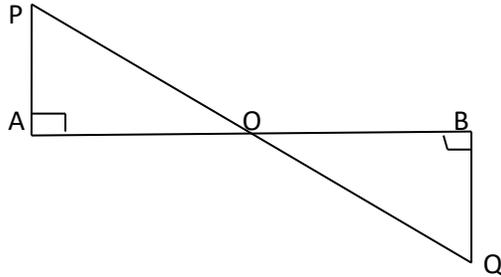
21. The selling price of 16 spoons is equal to the CP of 15 spoons. Find the loss or gain percent.

22. a) If $A : B = 5 : 8$ and $B : C = 16 : 25$, find $A : C$

b) If 27, 36, x are in continued proportion, find the value of x.

23. A tree is broken at a height of 7m from ground and its top touches the ground at a distance of 9m from the base of the tree. Find the original height of the tree.

24. In the given figure, $PA = QB$, $\angle A = \angle B = 90^\circ$. Prove that $\triangle OAP \cong \triangle OBQ$. Is $OA = OB$?



25. A) Find the area of the square whose length of the diagonal is 72 cm.

b) Find the area of a rectangular plot one side of which is 48m and its diagonal 50m.

26. A room is 8m long, 6m broad and 3.4m high. It has two doors each measuring (2m by 1m). Is two windows each measuring (3m by 2m). Find the cost of painting its four walls at Rs 160 per m^2 .

27. The blood group of 200 people is distributed as follows

Types of blood	A	B	O	AB
No of persons	50	65	70	15

If a person from this group is selected at random, what is the probability that this person has blood-group-?

i) O ii) AB iii) A iv) B

28. Calculate the Mode for the following data by using empirical formula :-

Marks obtained	10	11	12	13	14	16	19	20
No. of students	3	5	4	5	2	3	2	1

29. Given below are the height (in cm) of 16 girls in a class.

154 , 150 , 152 , 154 , 154 , 150 , 148 , 152 , 152 , 152 , 154 , 150 , 152 , 154 , 152 , 152.

Arrange the data in ascending order and prepare the frequency table.