

FACULTY HIGHER SECONDARY SCHOOL

Half Year Examination (Sample Paper 2019-20)

Subject- Mathematics

Class-VIII

Maximum Mark: 80

Time: 3hrs

SECTION A (One Mark)

1. What is the multiplicative inverse of $\frac{-4}{7}$
(a) $\frac{4}{7}$ (b) $\frac{7}{4}$ (c) $\frac{-7}{4}$ (d) 1
2. The sum of all the interior angles of a pentagon is
(a) 8 right angles (b) 5 right angles (c) 10 right angles (d) 6 right angles
3. How many diagonal are there in a hexagon
(a) 4 (b) 10 (c) 9 (d) 7
4. A die is thrown once. What is the probability of getting a prime number?
(a) $\frac{1}{3}$ (b) $\frac{2}{3}$ (c) $\frac{1}{2}$ (d) 1
5. A collection of numerical facts regarding a particular type of information is
(a) Range (b) Frequency (c) Data (d) Tally Marks
6. If the digit in the one's place is 6, then the one's digit of its perfect cube will be
(a) 4 (b) 6 (c) 2 (d) 8
7. The product of a rational number and its reciprocal is
8. The name of the polygon with 8 sides is
9. What is the additive inverse of 0?
10. If $x-5 = 7 -2x$, then $x = ?$
11. Solve: $\frac{3x}{5} = 15$
12. The ratio of two numbers is 2:5. If their difference is 66. Form a linear equation.
13. What is the square of 101?
14. What is the square root of 0.25?
15. The square of even number is odd .(True/false)
16. Evaluate $(-0.4)^3$
17. Find the Cube of $3a$?
18. If $x\%$ of 35 is 42. Find x ?
19. Express 24% as a fraction
20. Convert the ratio 3:4 to percentage.

SECTION B (Two Marks)

21. Find five rational numbers between 5 and 6.
22. Solve: $9x + 5 = 4(x-2) + 8$
23. Find the measure of each interior angle of a regular polygon of 8 sides?
24. Find the value of $\sqrt{24} \times \sqrt{54}$
25. Evaluate $3\sqrt{27} \times 343$

26. 72% of 25 students are good in Mathematics. How many are not good in Mathematics?

SECTION C (Three Marks)

27. The product of two rational number is $\frac{-9}{4}$. If one of the number is $\frac{-12}{7}$, find the other.
28. Half of a herd of deer are grazing in the field and three fourth of the remaining are playing nearby. The rest 9 are drinking water from the pond. Find the number of deer in the herd.
29. Two adjacent angles of a parallelogram are in the ratio 2:3. Find the measure of each angle.
30. Construct a rhombus the length of whose diagonal are 6cm and 8cm.
31. A pack of 52 cards is shuffled. What is the probability of
- Getting an ace
 - Getting a card of diamond
 - Getting a face card
32. The area of a rectangular field whose length is twice its breadth is 2450m². Find the perimeter of the field.
33. The volume of a cube is 166375m³. Find each sides of the cube.
34. The adjacent figure ABCD is a parallelogram. Find x,y,z. State the properties you use to find them



SECTION D (Three Marks)

35. Divide Rs 2700 among Asha, Ram and Gopal such that Asha get Rs 300 less than Ram and Gopal get half of what Asha gets. Find the amount each of them gets?
36. Construct a quadrilateral TRUE where TR=3.5cm, RU=3cm, UE=4cm, LR=75, LU=120
37. Draw the histogram of the following data:

Class Interval	0-5	5-10	10-15	15-20	20-25	25-30
Frequency	10	12	8	4	16	20

38. Find the least number of 4- digits which is a perfect square.
39. After allowing two successive discounts of 25% and 30%, a shopkeeper sells a woolen jacket for Rs 420. Find the marked price of the jacket.
40. Find the sum of money which amounts to Rs96,100 after 2 years, if the rate of interest is $3\frac{1}{3}\%$ per annum compounded annually.