Max. Marks: $\mathbf{8 0}$
Duration: 3 Hours

## General Instructions:

All questions are compulsory. Check whether the question paper contains 5 printed pages. The question paper consists of 40 questions divided into four sections A, B, C \& D. Section A comprises 20 questions of 1 mark each, Section B comprises 6 questions of 2 marks each, Section C comprises 8 questions of 3 marks each \& Section D comprises 6 questions of 4 marks each. Do the calculations in the working column. Give necessary formulae and steps wherever required.

## SECTION A

Multiple choice questions:

1. The integer 5 more than ( -4 ) is:
(a) 1
(b) 9
(c) (-9)
(d)(-1)
2. The value of $(-1)^{25}$ is:
(a) 1
(b) $(-1)$
(c) 25
(d)(-25)
3. The value that occurs most frequently in a given data is called its:
(a) mode
(b) mean
(c) median
(d) range
4. The probability of getting a 5 when a dice is rolled once is:
(a) $\frac{1}{6}$
(b) 1
(c) $\frac{2}{6}$
(d) $\frac{5}{6}$
5. The sum of a linear pair is:
(a) $90^{\circ}$
(b) $180^{\circ}$
(c) $120^{0}$
(d) $360^{\circ}$
6. A triangle has------------- medians.
(a )6
(b) 3
(c) 9
(d) 1
7. The product of $78.98 \times 10000$ is:
(a) 7898
(b) 78980
(c) 789800
(d) 7898000
8. If two parallel lines are intersected by a transversal, then a pair of alternate angles are:
(a) Equal
(b) linear pair
(c) complementary
(d) supplementary
9. Write the equation for the statement: Ten times $m$ is 70 .
(a) $10+m=70$
(b) $10 m=70$
(c) $10-\mathrm{m}=70$
(d) $70 m=10$
10. The sum of $3 p$ and $5 p$ is $(-32)$, the value of $p$ is:
(a) 4
(b) (-4)
(c) 8
(d) $(-8)$

## Answer the following questions:

11. Find the quotient: $81 \div(-9)$.
12. Find the value of $x: 2 x=36$
13. What is the multiplicative identity of integers?

OR
What is the additive identity of integers?
14. What is the sum of the interior angles of a triangle?

## OR

How many altitudes are there in a triangle?
15. Find the value of the unknown interior angle $x$ in the following diagram:

16. What is the probability of getting a tail if a coin is tossed once?
17. Find the value of complementary angle $x$ in the following diagram:

18. What is the additive inverse of (-29)?
19. Divide 234.425 by 1000
20. Find the supplement of $76^{\circ}$ angle?

## SECTION B

21. Evaluate: $5 \frac{1}{6}+\frac{9}{2}$
22. Solve the equation: $5 x+1=36$.

OR
Solve the equation: $3 x-2=31$.
23. Find the product using suitable property: $825 \times(-25)+825 \times(-75)$
24. A cricketer scores the following runs in eight innings: $58,66,40,35,46,45,10,100$. Find the mean score. OR

The runs scored in a cricket match by 11 players is as follows: $6,15,20,50,100,80,10,15,8,10,15$.
Find the median.
25. Set up the equation and solve it: Add 4 to eight times a number; you get 60 .
26. Find the value of unknown $x$ in the following diagram and also write the reason.


## SECTION C

27. Mr. Bose bought 15.5 litres of oil in Rs. 1122.20. Find the cost of oil per litre.

OR
Sarita bought $7 \frac{3}{4} \mathrm{Kg}$ of potatoes and $5 \frac{4}{5} \mathrm{Kg}$ of tomatoes from a vendor. What is the total weight of the vegetables bought by her.
28. In an isosceles triangle, the base angles are equal. The vertex angle is 40 . What are the base angles of the triangle?

OR
The three angles of a triangle are in the ratio 2:3:5. Find all the angles of the triangle.
29. Solve the equation: $2(5 x-3)-3(2 x-1)=9$
30. A batsman scored the following number of runs in seven innings:
$36,35,56,32,44,60,35$. Find the range, median, and mode.
OR
The daily wages of 15 workers in a factory are given below:
$200,180,150,150,130,180,180,200,150,130,180,180,200,150,180$.
Prepare the frequency table and also find the range of the data.
31. The product of two integers is (-150). If one of it is 50 , find the other.
32. Simplify: $4 \frac{2}{3} \div 3 \frac{1}{4} \times 2 \frac{1}{6}$
33. Find the value of unknown angles $x, y$ in the following diagram and also write the reasons.

34. Find the value of unknown angles $x, y, z$ in the following diagram and also write the reasons


## SECTION D

35. In a class test containing 20 questions, 4 marks are given for every correct answer and ( -2 ) marks are given for every incorrect answer and 0 mark is given for not attempting the questions.
(a) Rahul attempted all questions but only 11 of his answers are correct. What is his total score?
(b) Rohan attempted only 15 questions but only 9 of his answers are correct. What is his total score?

## OR

Name the property of integers used in each of the following:
(a) $(-6) \times 5=(-30)$
(b) $5+(-3)=(-3)+5$
(c) $(-5)+(3+2)=(-5+3)+2$
(d) $16 \times(10+2)=16 \times 10+16 \times 2$
36. Simplify: $4 \frac{5}{6}-2 \frac{3}{8}+3 \frac{7}{12}$
37. Solve the following equations:
(a) $\frac{3 p}{4}=24$
(b) $2(m-3)=18$

OR
There are 48 students in a class. The number of boys is three times the number of girls in the class Find the number of boys and girls in the class.
38. Find the value of unknown angles $x, y, z$ in the following diagram if $A B$ and $C D$ are parallel and also write the reason.

39. Find the value of $x, y$ in the following diagram and also write the reasons.

40. Draw a double bar graph for the following data choosing an appropriate scale:

The result of pass percentage of class X and class XII in C.B.S.E examination for 5 years are given below.

| YEAR | $2013-14$ | $2014-15$ | $2015-16$ | $2016-17$ | $2017-18$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CLASS X | 90 | 95 | 90 | 80 | 98 |
| CLASS XII | 95 | 80 | 85 | 90 | 95 |

