



DOON UNIVERSITY, DEHRADUN

End Semester Examination, 3rd Semester, 2023

Academic Year 2023-24 (Odd Semester)

School of Management

Programme Name : Ability Enhancement Skills

Course Code with Title : Mathematical Ability for Competitive Maths (DUV111)

Time Allowed 2.00 Hours

Maximum Marks: 80

SECTION: A

(Total 20 marks)

1. What is the greatest number that will divide 2930 and 3250 and will leave as remainders 7 and 11 respectively ? (5 marks)
2. 10% of the voters did not cast their vote in an election. 10% of the votes poll were found invalid. The winning candidate got 54% of the valid vote and win by 1620 votes ? (5 marks)
3. The average weight of 10 person decreased by 3 kg when one of them lose weight 80 kg is replaced by a new person. Find weight of a new person? (5 marks)
4. Of the three numbers first is twice the second and the second is three times the third. If their average is 100. Find the largest number? (5 marks)

SECTION: B

(Total 30 marks)

1. A man sold two machines at Rs. 990 each. On one he gained 10 % & on the other he loses 10 %. Find the percentage of profit or loss in the total transaction? (6 marks)
2. An article was sold for Rs. 1425 resulted in a loss of 5%. What was the cost price of an article? (6 marks)
3. A person goes a certain distance with speed of 20 km/hr. Next he covers the same distance with speed of 30 km/hr. And at last he covers the same distance with speed of 60 km/hr. Find Average speed ? (6 marks)
4. (a) What is the chance that a leap year selected randomly will have 53 Sundays ; (b) What is the chance if the year selected is not a leap year? (6 marks)

5. A batsman has certain average for 16 innings. In the 17 innings he scored 87 runs and increase his average by 3. Find his new average? (6 marks)

SECTION: C

(Total 30 marks)

1. A dice is thrown. What is the probability that the number shown on the dice is (a) an even no. ;(b) an odd no. ; (c) a no. divisible by 2 ; (d) a no. divisible by 3 (e) a no. less than 4; (f) a no. less than or equal to 4 ; (g) a no. greater than 6 ; (h) a no. less than or equal to 6 ? (10 marks)

2. A card is drawn from a pack of cards. What is the probability that it is (a) a card of black suit ; (b) a spade card ; (c) an honours card of red suit (d) an honours card of club (e) a card having the number less than 7 ;(f) a card having the number a multiple of 3 ; (g) a king or a queen ; (h) a digit card of heart ; (i) a jack of black suit ? (10 marks)

3. (a) Explain Mean , Median and Mode with suitable examples ; (b) Find median of following data : 38, 34, 39, 35, 32, 31, 37, 30 ? (10 marks)