## **MATHEMATICS**



## **DPP No. 82**

Total Marks: 21

Max. Time: 21 min.

**Topic: Statistics** 

Type of Questions M.M., Min.

Single choice Objective (no negative marking) Q.1,2,3,4,5,6,7

(3 marks, 3 min.) [21, 21]

- 1 The mean of a set of numbers is  $\bar{x}$ . If each number is multiplied by  $\lambda$ , then mean of new set is
  - $(A) \overline{x}$
- (B)  $\lambda + \overline{x}$
- (C)  $\lambda \bar{x}$
- (D) None of these
- 2 The mean of discrete observations  $y_1, y_2, \dots, y_n$  is given by
- (B)  $\frac{\sum_{i=1}^{n} y_i}{\sum_{i=1}^{n} i}$
- $(D) \frac{\sum_{i=1}^{n} y_i f_i}{\sum_{i=1}^{n} f_i}$
- 3 The reciprocal of the mean of the reciprocals of n observations is their
  - (A) A.M.
- (B) G.M.
- (C) H.M.
- (D) None of these
- The weighted mean of first n natural numbers whose weights are equal to the squares of corresponding 4 numbers is
  - (A)  $\frac{n+1}{2}$
- (B)  $\frac{3n(n+1)}{2(2n+1)}$  (C)  $\frac{(n+1)(2n+1)}{6}$  (D)  $\frac{n(n+1)}{2}$
- 5 A student obtain 75%, 80% and 85% in three subjects. If the marks of another subject is added, then his average cannot be less than
  - (A) 60%
- (B) 65%
- (C)80%
- (D) 90%
- 6 If the mean of the set of numbers  $x_1, x_2, x_3, \dots, x_n$  is  $\overline{x}$ , then the mean of the numbers  $x_1 + 2i, 1 \le i \le n$  is
  - (A)  $\overline{x} + 2n$
- (B)  $\overline{x} + n + 1$
- (C)  $\overline{x} + 2$
- (D)  $\overline{x} + n$
- 7 Mean of 100 items is 49. It was discovered that three items which should have been 60, 70, 80 were wrongly read as 40, 20, 50 respectively. The correct mean is
  - (A) 48
- (B)  $82\frac{1}{2}$
- (C)50
- (D) 80

## **Answers Key**

**1** (C) **2** (A) **3** (C) **4** (B)

**5** (A) **6** (B) **7** (C)

