

PRERNA EDUCATION

IIT/ MEDICAL/ FOUNDATION

SAMPLE QUESTIONS CHAPTER 14- STATISTICS

Q.No. 1 Find the mode of the following data:

120, 110, 130, 110, 120, 140, 130, 120, 140, 120.

- (a) 120 (b) 130 (c) 110 (d) 140

Ans. (a)

Q.No. 2 Find the value of x , if the mode of the following data is

25, 15, 20, 25, 18, 14, 15, 25, 15, 18, 16, 20, 25, 20, x , 18.

- (a) 15 (b) 18 (c) 20 (d) 25

Ans. (d)

Q.No.3 Find the mean of 2,3,8,9,7,9,5,8,4,5

- (a) 7 (b) 5 (c) 6.6 (d) 6

Ans. (d)

Q.No.4 The following data gives the distribution of total household expenditure (in rupees) of manual workers in a city:

Expenditure (Rs)	Frequency	Expenditure (Rs)	Frequency
1000-1500	24	3000-3500	30
1500-2000	40	3500-4000	22
2000-2500	33	4000-4500	16
2500-3000	28	4500-5000	7

Find the average expenditure which is being done by the maximum number of manual workers.

- (a) 1847.8 (b) 1647.8 (c) 1500 (d) 1400

Ans. (a)

Q.No.5 Following table shows the weight of the bags of 12 students:

Weight (Kg)	67	70	72	73	75
Number of students	4	3	2	2	1

Find the mean weight.

- (a) 70.50 (b) 71.25 (c) 70.25 (d) 72.50

Ans. (c)

Q.No. 6 The number of students absent in a school was recorded every day for 147 days and the raw data was presented in the form of the following frequency table.

No. of students absent	5	6	7	8	9	10	11	12	13	15	18	20
No. of days	1	5	11	14	16	13	10	70	4	1	1	1

Obtain the median

- (a) 11 (b) 12 (c) 13 (d) 14

Ans. (b)

Q.No. 7 For the following grouped frequency distribution, find the mode.

Class	3-6	6-9	9-12	12-15	15-18	18-21	21-24
Frequency	2	5	10	23	21	12	3

- (a) 15.4 (b) 16.5 (c) 17.6 (d) 14.6

Ans. (d)

Q.No. 8 A student noted the number of cars passing through a spot on a road for 100 periods each of 3 minutes and summarized it in the table given below. Find the mode of the data.

Number of cars	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	7	14	13	12	20	11	15	8

- (a) 44.71 (b) 45.71 (c) 46.71 (d) None of these

Ans. (a)

Q.No. 9 The following table gives weekly wages of workers in a certain organization. The frequency of class 49-52 is missing. It is known that the mean of the frequency distribution is 47.2. Find the missing frequency.

Weekly wages (Rs)	40-43	43-46	46-49	49-52	52-55
Number of workers	31	58	60	?	27

- (a) 45 (b) 46 (c) 44 (d) 47

Ans. (c)

Q.No. 10 The mean of the following frequency distribution is 1.46. Find the missing frequencies.

Number of accidents (x)	0	1	2	3	4	5	Total
Frequency (f)	46	f_1	f_2	25	10	5	200

- (a) $f_1 = 38, f_2 = 76$ (b) $f_1 = 76, f_2 = 38$ (c) $f_1 = 67, f_2 = 38$ (d) None of these

Ans. (b)

Q.No. 11 Find the values of x and y if the total frequency and the median of the following data is 100 and 525, respectively.

Class interval	0-100	100-200	200-300	300-400	400-500	500-600	600-700	700-800	800-900	900-1000
Frequency	2	5	x	12	17	20	y	9	7	4

(a) $x=9, y=15$

(b) $x=18, b=17$

(c) $x=17, b=15$

(d) $x=17, b=16$

Ans. (a)

Q.No. 12 A frequency distribution of the life times of 400 T.V. picture tubes tested in a company is given below. Find the average life of a tube.

Life time (in hours)	Frequency	Life time (in hours)	Frequency
300-399	14	800-899	62
400-499	46	900-999	48
500-599	58	1000-1099	22
600-699	76	1100-1199	6
700-799	68		

(a) 700

(b) 750

(c) 745

(d) 715

Ans. (d)

Q.No. 13 The mean of the following frequency table is 50. But the frequencies f_1 and f_2 in class 20-40 and 60-80 are missing. Find the missing frequencies.

Class	0-20	20-40	40 - 60	60 - 80	80-100	Total
Frequency	17	f_1	32	f_2	19	120

(a) $f_1 = 82, f_2 = 42$

(b) $f_1 = 28, f_2 = 42$

(c) $f_1 = 28, f_2 = 24$

(d) $f_1 = 24, f_2 = 28$

Ans. (c)

Q.No. 14 Compute the median from the following data:

Mid-Value	115	125	135	145	155	165	175	185	195
Frequency	6	25	48	72	116	60	38	22	3

(a) 163.5

(b) 153.8

(c) 150

(d) 164.5

Ans. (b)

Q.No. 15 Find the mean marks of students from the following cumulative frequency distribution:

Marks	Number of students	Marks	Number of students
0 and above	80	60 and above	28
10 and above	77	70 and above	16
20 and above	72	80 and above	10
30 and above	65	90 and above	8

40 and above	55	100 and	0
		above	
50 and above	43		

(a) 50.5

(b) 61.75

(c) 53

(d) 51.75

Ans. (d)

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