MATHS

BOOKS - MBD NCERT SOLUTIONS

STATISTICS

Long Answer Type Questions

1. Consider the following distribution of daily wages of 50 workers of a factory. Find the

mean daily wages of the workers of the factor}- by using an appropriate method.

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2. The following table gives the literacy rate (in percentage) of 35 cities. Find the mean literacy rate.

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3. A survey regarding the heights (in cm) of 51 girls of Class X of a school was conducted and the following data was obtained: Find the median height.

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4. The lengths of 40 leaves of a plant are measured correct to the nearest millimeter and the data obtained is represented in the following table :

Find the median length of the leaves.

Length (in mm)	Number of Leaves
117.5–126.5	3
126.5–135.5	5
135.5–144.5	9
144.5–153.5	12
153.5–162.5	5
162.5–171.5	4
171.5–180.5	2

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5. The table below shows daily expenditure on food of 25 households in a locality.

Find the mean daily expenditure.

Expenditure (in ₹)	No. of Households
100–150	4
150–200	5
200–250	12
250–300	2
300–350	2

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6. The table below gives the percentage distribution of female teachers in the schools of rural areas. Find the mean percentage of

female teachers.

Percentage of Female Teachers	No. of Areas
15–25	6
25–35	11
35–45	7
45–55	4
55–65	4
65–75	2
75–85	1

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7. The following distribution gives the monthly

consumption of consumers of a locality. Find

the median of the distribution

Monthly Consumption (in units)	No. of Consumers
65–85	4
85–105	5
105–125	13
125–145	20
145–165	14
165–185	8
185–205	4

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8. The following data gives the information on the life time (in hours) of electrical instruments.

Find the mean of life time of the instruments

Life time (in hours)	Frequency
0–20	10
20–40	15
40–60	12
60–80	21
80–100	8
100–120	9

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9. The following distribution shows the daily pocket money of children of a school.

Find the average daily pocket money of

children.

Daily Pocket Money (₹)	No. of Children
11–13	7
13–15	6
15–17	9
17–19	13
19–21	20
21–23	5
23–25	4

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10. The length of 40 leaves of a plant are measured in mm and are given in the following table.

find the median length of the leaves.

Length (in mm)	No. of Leaves
18–27	3
27–36	5
36–45	10
45–54	13
54–63	5
63–72	6

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11. Find the mean of the following frequency distribution:

Class Interval	0–10	10–20	20–30	30–40	40–50
Frequency	2	4	3	1	2

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12. Find the mode of following frequency distribution :

Class Interval	Frequency
1000–1500	24
1500–2000	40
2000–2500	33
2500–3000	28
3000–3500	30
3500–4000	22
4000–4500	16
4500–5000	7

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13. The following distribution shows the daily pocket allowance of children of a locality. The

mean pocket allowance is Rs 18. Find the missing frequency f.

14. If the median of the distribution given below is 28.5, find the values of x and y.

Class interval	Frequency
0 - 10	5
10 - 20	x
20 - 30	20
30 - 40	15
40 - 50	y
50 - 60	5
Total	60

15. The distribution below gives the weights of 30 students of a class. Find the median weight of the students.

Weight (in kg)	40–45	45–50	50–55	55–60	60–65	65–70	70–75
Number of Students	2	3	8	6	6	3	2

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16. 100 surnames ware randomly picked up from a local telephone directory and the

frequency distribution of the number of letters in the English alphabets in the surnames was obtained as follows :

Determine the median number of letters in the surnames.

Number of Letters	1–4	4–7	7–10	10–13	13–16	16–19
Number of Surnames	6	30	40	16	4	4

17. The median of the following data is 525. find the the value of x and y, if the total

frequency is 100 :

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

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18. During the medical check up of 35 students of a class, their weights were recorded as follows :

Draw a less then type ogive for the given data.

Hence obtain the median weight from the graph and verify the result by using the formula.

Weight (in kg)	Number of Students
Less than 38	0
Less than 40	3
Less than 42	5
Less than 44	9
Less than 46	14
Less than 48	28
Less than 50	32
Less than 52	35

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