QB365 Question Bank Software Study Materials

Statistics Important 2 Marks Questions With Answers (Book Back and Creative)

9th Standard

Maths

Total Marks : 30

2 Marks

15 x 2 = 30

1) In a rice mill, seven labours are receiving the daily wages of Rs. 500, Rs. 600, Rs. 600, Rs. 800, Rs. 800, Rs. 800 and Rs. 1000, find the modal wage

Answer : In the given data Rs. 800 occurs thrice. Hence the mode is Rs. 800

2) Find the mode for the set of values 17, 18, 20, 20, 21, 21, 22, 22.

Answer : In this example, three values 20, 21, 22 occur two times each. There are three modes for the given data!

3) A set of numbers consists of five 4's, four 5's, nine 6's, and six 9's. What is the mode.

Answer :

SIZE OF ITEM	4	5	6	9
FREQUENCY	5	4	9	6

6 has the maximum frequency 9. Therefore 6 is the mode.

4) In a week, temperature of a certain place is measured during winter are as follows 26ºC, 24ºC, 28ºC, 31ºC, 30ºC, 26ºC, 24ºC. Find the mean temperature of the week.

Answer : Mean $\bar{x} = \dfrac{\Sigma x}{n}$

$= \dfrac{26 + 24 + 28 + 31 + 30 + 26 + 24}{7} = \dfrac{189}{7}$

Mean temperature of the week = 27^0C

5) The mean weight of 4 members of a family is 60 kg. Three of them have the weight 56kg, 68kg and 72 kg respectively. Find the weight of the fourth member.

Answer : $\bar{x} = 60 kg$

$\bar{x} = \dfrac{\Sigma x}{n} = \dfrac{56 + 68 + 72 + x}{4} = 60$

196 + x = 260

x = 240-196

∴ The weight of the fourth number = 44 kg

6) In a class test in mathematics, 10 students scored 75 marks, 12 students scored 60 mark, 8 students scored 40 marks and 3 students scored 30 marks. Find the mean of their score.

Answer : Total number of students = 10 + 12 + 8 + 3 = 33

The total score of 33 students = $10 \times 75 + 12 \times 60 + 8 \times 40 + 3 \times 30$

= 750 + 720 + 32090 = 1880

Mean of their score = $\dfrac{Total\ Marks}{number\ of\ students} = \dfrac{188}{33}$

= 56.96 or 57 approximately

7) In a research laboratory scientists treated 6 mice with lung cancer using medicine. Ten days, they measured the volume of the tumor of the tumor in each mouse given the results in the table

Mouse marking	1	2	3	4	5	6
Tumor Volume(mm)^3	145	148	142	141	139	140

Find the mean

Answer : $\bar{x} = \frac{\Sigma x}{n} = \frac{145+148+142+141+139+140}{6} = \frac{855}{6}$

x = 142.5 mm^2

8) Find the mode of the given data: 3.1, 3.2, 3.3, 2.1,1.3, 3.3, 3.1

Answer : 3.1, 3.2, 3.3, 2.1,1.3, 3.3, 3.1

In this given data 3.1, 3.3 occurs twice

∴ mode = 3.1 and 3.3(bimodal)

9) Find the arithmetic mean of the marks 72, 73, 75, 82, 74 obtained by the student in 5 subjects in an annual examination.

Answer : n = 5

$\bar{X} = \frac{\sum x}{n} = \frac{72+73+75+82+74}{5} = \frac{376}{5}$

= 75.2

Mean = 75.2

10) Obtain the mean number of bags sold by a shopkeeper on 6 consecutive days from the following table

Days	Mon	Tue	Wed	Thurs	Fri	Sat
No. of Bags sold	55	32	30	25	10	20

Answer : Mean no. of bags sold = $= \frac{55+32+30+25+10+20}{6}$

$= \frac{172}{6}$

= 28.666

= 28.67

11) The number of children in 10 families in a locality are 2, 4, 3, 4, 16, 4, x, 5. Find x if the mean number of children in a family is 4.

Answer : Given, Mean number of children in a family = 4

$\frac{34+x}{10} = 4$

34+x = 40

x = 6

12) The mean of 20 numbers is 59. If 3 is added to each number, what will be the new mean?

Answer : Given, Mean of 20 numbers = 59

$\Sigma x = 20 \times 59 = 1180$

When 3 is added to each number

New Σx = 1180 + 2003

= 1120 + 60 - 1240

New mean $\frac{1240}{20} = 62$

13) The mean of the 5 numbers is 32. If one of the numbers excluded then the mean is reduced by 4. Find the excluded number

Answer : Mean of 5 numbers = 32

Sum of these numbers = $32 \times 5 = 160$ $(\because n\bar{X} = \Sigma x)$

Mean of 4 nuitbers = 32-4 = 28

Sum of these 4 numbers = 28 × 4 = 112

Excluded number

= (Sum of the 5 given numbers) - (Sum of the 4 numbers)

= 160 - 112 = 48

14) The mean of 12 numbers is 48. If each number is multiplied by 4, what will be the new mean?

Answer : Given, Mean of 12 number is 48

$\sum x = 12 \times 48$

= 576

When each number is multiplied by 4,

New Σx = 576×4 = 2304

New mean $= \frac{2304}{12} = 192$

15) Find the mode for the set of values 482, 485,483, 485, 487, 489.

Answer : In this both 485 and 487 occur twice

This list is said to have two modes or to be bimodal.