

N.B :

- 1) Attempt all questions.
- 2) Graph Papers, log tables will be supplied on request.
- 3) Use calculator is allowed.
- 4) In each questions. Attempt any three out of five questions.

- Q.1. a) The following data give the July rainfall (in cm) at a certain place for 25 years.
40.8, 45.5, 48.7, 46.3, 44.4, 38.4, 46.0, 39.1, 41.6, 54.5, 48.0, 49.0, 51.5,
48.9, 46.0, 49.9, 55.0, 58.0, 58.7, 59.9, 53.0, 53.1, 61.9, 47.7, 50.4

Prepare a frequency distribution taking equal - width class intervals 38-42, 42-46 58-62. find the 1) percentage frequency ii) Relative frequency.

- b) Out of 100 students in a class consisting of 60 boys. 30 wear glasses and 75 passed in a test. Of the boys, 40 passed in the test including 15 wearing glasses. In all 20 boys. wear glasses and among the students wearing glasses 24 passed construct a table with suitable title.

- c) Draw the histogram and find the value of mode.

Daily Wages in Rs. :	20-25	25-30	30-35	35-40
No. of Workers :	5	7	23	10
Daily Wages in Rs. :	40-45	45-50	50-55	55-60
No. of Workers :	16	12	15	17

- d) The following data refer to the weight distribution of 100 employees of a company.

Weight in Kg.	45-50	50-55	55-60	60-65	65-70	70-75	75-80
No. of employees	6	8	15	26	20	14	11

find a) Find the maximum weight of the lightest 20% of the employees.

b) 9th decite

c) How many employees hare their weight between 55 kg & 80 kg.

- e) The first and third quartile of the following data an given to be 12.5 marks and 25 marks respectively. Total of frequency is 72.

Marks :	0-5	5-10	10-15	15-20	20-25	25-30
Frequency :	4	8	-----	19	-----	10
Marks :	30-35	35-40	Total			
Frequency :	5	-----	72			

- Q.2 a) The following data give marks obtained by 25 students in a test in Maths (x) and statistics (y)

(30, 10) (20, 25) (25, 25) (20, 15) (15, 30) (10, 20)
(18, 12) (16, 16) (28, 29) (29, 25) (12, 22) (19, 23)
(19, 25) (26, 14) (27, 15) (14, 14) (30, 22) (26, 24)
(20, 15) (17, 28) (18, 19) (25, 30) (32, 18) (13, 34) (18, 33)

Taking class intervals for x and y as 10-15, 15-20 prepare

- i) a birariate frequency table
- ii) Marginal frequency table for x and y

- b) Draw the multipal bar diagram and subdirided bar diagram for the following data.

Item	Family A	Family B	Family C
Food	35	30	37
Clothing	15	18	17
Rent	20	20	15
Fuel	10	12	13
Miscellaneous	20	20	18

- c) Find the mean of the following data.

Marks	No. of Students	Marks	No. of Students
Below 10	15	Below 50	96
Below 20	35	Below 60	127
Below 30	60	Below 70	198
Below 40	84	Below 80	250

- d) Calculate Median and mode for the following data.

Weight in Kg	:	50-53	53-56	56-59	59-62	62-65	65-68
No. of Junior Cadets	:	3	6	10	21	35	40
			68-71				
			30				

- e) In a Health club there are 100 members 50 men, 40 women and 10 children. It was Observed that the average weight of men, Women and children are 60kg, 48 kg and 32 kg respectively. Find the combined are rage weight of all the members in the club.

