

Unit-IV
DIAGRAMMATIC AND GRAPHIC PRESENTATION OF DATA

Section – A

One mark questions

1. What is one dimensional diagram? (U)
2. Mention a type of one dimensional diagram. (K)
3. Mention a two dimensional diagram. (K)
4. What is a pie diagram? (U)
5. What is Histogram? (U)
6. Name the graph used to locate mode. (U)
7. Name the graph used to locate median. (U)
8. Mention a merit of a diagram. (K)
9. Mention a merit of graph. (K)
10. Name the average located from Histogram. (K)

Section – B

Two marks questions

11. Mention two needs of diagrams. (U)
12. What are the general rules for drawing a diagram? (K)
13. Name two graphs which located with the help of Histogram (U)
14. Name different graphs used for presentation of frequency distribution. (U)
15. What are less than ogive and more than ogive? (U)
16. Mention the limitations of diagrams and graphs? (K)

Section – C/E

Five marks questions

17. Represent the following data regarding the production of paddy (in '000 tons) by simple bar diagram. (S)

Year	2005	2006	2007	2008
Production	90	85	100	105

18. Following figures represent the decadal change of population of India. Draw a simple bar diagram. (S)

Year	1971	1981	1991	2001	2011
Population(Million)	548	688	846	1028	1210

19. The following table shows the results of II P.U.C. students of a college for the last three years, Draw a multiple bar diagram. (S)

Year	1 st class	2 nd class	Pass class	Failed
2010	25	32	28	5
2011	28	25	17	10
2012	32	30	15	3

20. The production of wheat and rice of a region are given below: (S)

Year		2005	2006	2007	2008	2009	2010
Production (in Metric tons)	Wheat	12	15	18	19	22	26
	Rice	25	30	32	36	40	45

Draw a multiple bar diagram to represent the data.

21. Following is the data showing the strength of a college in different faculties. Draw a multiple bar diagram to represent the data.

(U)

Faculty	Students in the year		
	2008	2009	2010
Arts	150	90	100
Science	120	150	140
commerce	200	250	280
Total	470	490	520

22. Following is the data regarding the strength of students of a university during 2008-10. Construct a component bar diagram.

(S)

Year	Faculty				
	Arts	Science	Commerce	Engineering	Medical
2008	200	150	50	30	20
2009	250	200	80	50	40
2010	300	250	100	80	50

23. For the following data regarding the expenditure of families A and B. Represent the data by sub-divided bar diagram.

(S)

Items		Food	Clothing	House rent	Education	Fuel	Others
Expenditure in Rupees	Family A	2580	880	2200	360	280	1800
	Family B	3350	1250	3100	1550	450	2000

24. Following data represents the major consumption of food grains in Karnataka state. Represent the data by a subdivided bar diagram.

(S)

Food Grains	Quantity Consumed (In million Tons)
Jowar	450
Ragi	320
Wheat	150
Rice	400

25. The following data relates to the monthly expenditure (in Rs.) of two families A and B.

(S)

Items of expenditure	Expenditure (in Rs)	
	Family A	Family B
Food	2000	2500
Clothing	1000	2000
Rent	800	1000
Light & Fuel	400	500
Miscellaneous	800	2000

Represent the data by a rectangular diagram on percentage basis.

26. Following are the marks obtained by two students A and B in an annual examination. Represent the data by percentage bar diagram. (S)

Subjects	Marks of students	
	Student A	Student B
Language	72	82
English	85	92
Statistics	97	95
Economics	88	90
Business studies	90	87
Accountancy	94	98
Total	526	544

27. Percentage breakup of the cost of construction of a house in Bangalore (Excluding land cost) is given below : Labour: 20% , Bricks:12%, Cement:20%, Steel:15%, Wood:13%, Supervision:15%. Other expenses: 5%. Construct a pie diagram. (U)
28. For the following data regarding the income of the government from different sources, draw a pie diagram: (S)

Source	Customs	Excise	Income tax	Corporate tax	Miscellaneous
Revenue (in Million Rs.)	80	190	160	75	35

29. The following table shows the cost structure of Indian Hotel Industry in percentages. (S)

Cost components	Administrative expense	Employees payments	Repairs and maintenance	Food and Beverages	Electricity	Selling expenses
Total expenses (%)	30	20	12	16	14	8

Draw a Pie diagram to represent the data.

30. Draw a histogram from the following data and locate mode: (S)

C.I	0-10	10-20	20-30	30-40	40-50
f	13	17	15	13	10

31. Draw a histogram for the following data. (U)

Wages (000's Rs.)	2- 4	5 - 7	8 - 10	11 - 13	14 - 16	17 - 19	20 - 22	23 - 25
No. of workers	2	6	8	25	40	30	20	8

32. Draw a histogram for the following data and hence locate the value of mode.

Marks	0-5	5 - 10	10-20	20-30	30-40	40-50	50-70	70-80
No. of students	2	6	8	25	40	30	20	8

33. Draw a histogram and then obtain frequency polygon from histogram. (S)

Daily wages (in Rs.)	100-150	150-200	200-250	250-300	300-350	350-400
No. of workers	7	19	27	15	12	8

34. Draw a frequency polygon to the following frequency distribution. (S)

Mid-points	15	25	35	45	55	65	75
Frequency	5	12	25	18	10	6	2

35. Draw histogram, frequency polygon and then obtain frequency curve from the following frequency distribution. (S)

C.I	10-20	20-30	30-40	40-50	50-60
f	2	5	12	7	4

36. Draw frequency curve from the following frequency distribution. (S)

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	5	14	20	16	8

37. Draw a less than Ogive for the following distribution and locate the median from the graph. (S)

Daily wages Below Rs.	250	260	270	280	290	300	310	320	330	340
No. of workers	6	16	38	70	110	154	192	218	228	250

38. Draw a less than Ogive and locate the median from the graph. (S)

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of students	3	9	15	30	18	5

39. Draw Ogive from the following data and measure the median value. (S)

Class interval	0-10	10-20	20-30	30-40	40-50
Frequency	5	11	21	16	10

40. Draw less than and more than Ogives to the following frequency distribution and hence, locate the value of median. (S)

Classes	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequencies	3	8	14	25	15	7	2

41. Draw less than and more than Ogives to the following frequency distribution. (S)

Class	20-24	24-28	28-32	32-36	36-40	40-44
Frequency	17	25	40	23	12	8

42. From the following data, draw a less than ogive and locate the values of Q_1 and Q_3 Graphically. (S)

Marks	Less than 10	Less than 20	Less than 30	Less than 40	Less than 50	Less than 60
No. of students	5	13	24	39	52	60
