

D1BST2504

Name: .....

Reg. No.: .....

**FIRST SEMESTER FYUGP EXAMINATION NOVEMBER 2025****(Regular/Improvement/Supplementary)****MINOR****STA1MN105: DESCRIPTIVE STATISTICS****Time: 2 Hrs.****Maximum Marks: 70****M – Mark      BL - Bloom's Taxonomy Level (1 to 6)      CO - Course Outcome**

<b>Section A: Answer all questions. Each carries 3 marks. Ceiling: 24 Marks</b>											
<b>No.</b>	<b>Question</b>								<b>M</b>	<b>BL</b>	<b>CO</b>
1.	Distinguish between discrete data and continuous data by using suitable examples.								3	1	CO1
2.	What is meant by a questionnaire? How is it prepared?								3	4	CO1
3.	Explain the concept of a frequency distribution.								3	2	CO1 CO2
4.	Consider the table and convert the working classes to the actual classes								3	3	CO2
	working class	0-9	10-19	20-29	30-39	40-49	50-59	60-69			
	Frequency	2	8	5	7	9	11	9			
5.	Define median for discrete and continuous frequency distribution.								3	2	CO3
6.	Find Geometric mean of the following data.								3	3	CO3
	<b>x</b>	0-5	5-10	10-15	15-20	20-25					
	<b>f</b>	3	5	7	4	6					
7.	Define range. If the range and the smallest value of a set of data are 36.8 and 13.4 respectively, then find the largest value.								3	2	CO4
8.	Define measures of dispersion. What are the different measures of dispersion?								3	1	CO4
9.	Find the range and coefficient of range of the following data.  63, 89, 98, 125, 79, 108, 117, 68								3	3	CO4
10.	If the standard deviation of a data is 3.6 and each value of the data is divided by 3, then find the new variance and new standard deviation.								3	5	CO4
<b>Section B: Answer all questions. Each carries 6 marks. Ceiling: 36 Marks</b>											
<b>No.</b>	<b>Question</b>								<b>M</b>	<b>BL</b>	<b>CO</b>
11.	Define primary data and give different methods of collecting primary data.  <b>(PTO)</b>								6	2	CO1

12.	The following is the distribution of age of the students in a school.					6	4	CO1 CO2		
	Age	0-5	5-10	10-15	15-20					
	No. of students	35	40	50	30					
	Calculate the following;									
	a) The lower limit of the first class interval.									
	b) The class limits of the third class.									
	c) The class mark for the interval 5-10.									
	d) The class size.									
13.	Following is the data regarding the strength of students of a university during 2008-10. Construct a percentage bar diagram.						6	6	CO2	
	Year	Arts	Science	Commerce	Engineering	Medical				Total
	2008	200	150	50	30	20				450
	2009	250	200	80	50	40				620
	2010	300	250	100	80	50	780			
14.	The following data gives the amount spent of the construction of a house. Draw a pie diagram.						6	6	CO2	
	Item	Cement	Timber	Bricks	Labour	Steel				Miscellaneous
	Expenditure(In thousand)	60	30	45	75	45	45			
15.	Draw a histogram from the following data.						6	3	CO2	
	Class interval	0-10	10-20	20-40	40-50	50-60				
	Frequency	5	12	40	15	8				
16.	Calculate the median from the following.						6	5	CO3	
	Class interval	0-5	5-10	10-15	15-20	20-25				25-30
	Frequency	5	4	3	8	7	3			
17.	Define harmonic mean. If a car travels 100 km at speed of 45km/h and another 200 km at a speed of 30km/h. Find the average speed of the car for the entire journey.						6	3	CO3	
18.	Calculate the harmonic mean for the following data.						6	5	CO3	
	X	1	3	5	7	9				11
	f	2	4	6	8	10	12			

**Section C. Answer any one question. Each carries 10 marks. (1 x 10 = 10 marks)**

No.	Question	M	BL	CO				
19.	Prepare a frequency polygon and frequency curve from the following data.	10	6	CO2				
	Class interval				0-6	6-12	12-18	18-24
	Frequency	4	8	15	20	12	2	

20.	The mean and standard deviation of marks obtained by 40 students of a class in three subjects Mathematics, Science and Social Science are given below. Which of the three subjects shows highest variation and which shows lowest variation in marks?	10	4	CO4												
<table border="1"> <thead> <tr> <th data-bbox="161 219 512 259">Subject</th> <th data-bbox="517 219 855 259">Mean</th> <th data-bbox="860 219 1203 259">S D</th> </tr> </thead> <tbody> <tr> <td data-bbox="161 266 512 300">Mathematics</td> <td data-bbox="517 266 855 300">56</td> <td data-bbox="860 266 1203 300">12</td> </tr> <tr> <td data-bbox="161 306 512 340">Science</td> <td data-bbox="517 306 855 340">65</td> <td data-bbox="860 306 1203 340">14</td> </tr> <tr> <td data-bbox="161 347 512 387">Social Science</td> <td data-bbox="517 347 855 387">60</td> <td data-bbox="860 347 1203 387">10</td> </tr> </tbody> </table>		Subject	Mean	S D	Mathematics	56	12	Science	65	14	Social Science	60	10			
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