

University of Kerala

UoK -FYUGP

**TEMPLATE 4**

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| **University of Kerala** | | |
| Discipline: Statistics |  | Time: 2 Hours (120 Mins.) | |
| Course Code:UK1DSCSTA105 |  | Total Marks: 56 | |
| Course Title: Elementary Statistics |  |  | |
| Type of Course: DSC |  |  | |
| Semester: 1 |  |  | |
| Academic Level: 100-199 |  |  | |
| Total Credit: 4, Theory: 4 Credit, Practical: 0 Credit |  |  | |

**Part A.** 6 Marks. Time: 5 Minutes  
Objective Type. 1 Mark Each. Answer All Questions

(Cognitive Level: Remember/Understand)

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| **Qn. No.** | **Question** | **Cognitive Level** | **Course Outcome (CO)** |
| 1. | List the two statistics wings of MoSPI. | Remember | CO1 |
| 2. | Which table shows the running total of frequencies up to a certain value? | Remember | CO4 |
| 3. | What are the two main types of numerical data? | Understand | CO2 |
| 4. | Define a questionnaire? | Understand | CO3 |
| 5. | When should a subdivided bar chart be used? | Understand | CO5 |
| 6. | How can we find out mode graphically? | Understand | CO6 |

Part B. 10 Marks. Time: 20 Minutes  
Two-Three sentences. 2 Marks Each. Answer All Questions

(Cognitive Level: Understand/Apply)

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| **Qn. No.** | **Question** | **Cognitive Level** | **Course Outcome (CO)** |
| 7. | What are some key areas where statistics are used in everyday life? | Understand | CO1 |
| 8. | What are the key components of a table in data tabulation? | Understand | CO4 |
| 9. | What is a common method of sampling used in surveys? | Apply | CO5 |
| 10. | Explain the sampling technique where every nth member of the population is selected?” | Apply | CO3 |
| 11. | Calculate the standard deviation of the daily temperatures recorded over a week  22, 24, 23, 25, 21 | Apply | CO6 |

Part C. 16 Marks. Time: 35 Minutes  
Short Answer. 4 Marks Each. Answer all 4 questions, choosing among options within each question.

(Cognitive Level: Apply/Analyse)

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| Qn. No. | Question | Cognitive Level | Course Outcome (CO) |
| 12 A. | Prepare a blank table to show the exports of the 3 companies X,Y and Z to 5 countries Iran, Iraq, Saudi arabia, Dubai, Muscat in each of the years 1991,1992 and 1993. | Apply | CO2 |
| 12B | Calculate mean of the marks obtained by 10 students given below.  Roll No: 1 2 3 4 5 6 7 8 9 10  Marks: 23 32 25 38 56 12 32 38 48 70 | Apply | CO6 |
| 13 A. | Calculate median and mode of the marks obtained by 10 students given below.  Roll No: 1 2 3 4 5 6 7 8 9 10  Marks: 23 32 25 38 56 12 32 38 48 70 | Apply | CO6 |
| 13B | The sum of 20 observations is 300 and its sum of squares is 5000 and mean is 15. Find the coefficient of variation. | Apply | CO6 |
| 14 A. | Distinguish between convenient sampling and quota sampling. | Analyse | CO3 |
| 14B | Describe nominal and ordinal scales with examples. | Analyse | CO1 |
| 15 A. | Compare questionnaire and schedules. | Analyse | CO2 |
| 15B | Illustrate relative frequency table and its significance. | Analyse | CO4 |

Part D. 24 Marks. Time: 60 Minutes  
Long Answer. 6 Marks Each. Answer all 4 questions, choosing among options within each question. (Cognitive Level: Analyse/Evaluate/Create)

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| **Qn. No.** | **Question** | **Cognitive Level** | **Course Outcome (CO)** |
| 16A. | Briefly describe the different statistical organizations in India. | Analyse | CO1 |
| 16B | Compare sampling and census methods. | Analyse | CO3 |
| 17A. | Compare the merits and demerits of Arithmetic Mean, median and mode. | Evaluate | CO6 |
| 17B | Calculate mean, median and mode from the following data of the heights in inches of a group of students.  61,62,63,61,63,64,64,60,65,63,64,65,66,64 | Evaluate | CO6 |
| 18A. | Consider the following data.   |  |  |  | | --- | --- | --- | |  | Distribution A | Distribution B | | Mean | 100 | 90 | | Median | 90 | 80 | | S.D | 10 | 10 |   Comment and giving reasons for  a) A has the same degree of variation as B.  b) Both distributions have the same degree of Skewness? | Evaluate | CO6 |
| 18B | Calculate Arithmetic Mean and Standard Deviation of the following values:  95,94,96,93,87,79,73,69,68,67,78,82,83,89,95,103,108,117,130,97 | Evaluate | CO6 |
| 19A. | Prepare a questionnaire to obtain information on the study habits of university students in Kerala and facilities available to them. | Create | CO2 |
| 19B | The following are the number of flowers in 20 plants. Classify the data into an ungrouped frequency distribution.  2,5,3,0,3,3,5,7,2,0,2,2,3,2,5,7,5,2,3,3. | Create | CO3 |

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| **Cognitive Level** | **Marks** | **Percentage** |
| Remember | 2 | 3.6 |
| Understand | 8 | 14.3 |
| Apply | 14 | 25.0 |
| Analyse | 14 | 25.0 |
| Evaluate | 12 | 21.4 |
| Create | 6 | 10.7 |
| **TOTAL** | **56** | **100** |

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| **Course Outcomes** | **Marks** | **Percentage** |
| CO1 | 13 | 7 |
| CO2 | 15 | 8 |
| CO3 | 19 | 11 |
| CO4 | 7 | 3 |
| CO5 | 3 | 1 |
| CO6 | 39 | 23 |
| **TOTAL** | 96 | **100** |