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| QP CODE: D4BSM2403                                                                                       | (Pages: 2)               | Reg. No : ..... |
|                                                                                                          |                          | Name : .....    |
| <b>FOURTH SEMESTER FYUGP EXAMINATION, APRIL 2026</b>                                                     |                          |                 |
| <b>Discipline Specific Core (DSC) Courses - Major</b>                                                    |                          |                 |
| <b>BSM4CJ205 : BUSINESS STATISTICS</b>                                                                   |                          |                 |
| <b>(Credits: 4)</b>                                                                                      |                          |                 |
| <b>Time: 2 Hours</b>                                                                                     | <b>Maximum Marks: 70</b> |                 |
| <b>Section A</b>                                                                                         |                          |                 |
| <b>Answer the following questions. Each carries 3 marks (Ceiling: 24 marks)</b>                          |                          |                 |
| 1. What is a histogram? What are the two types of histograms.                                            | BL2                      | CO1, CO2        |
| 2. List and explain any three characteristics of Statistics.                                             | BL2                      | CO1, CO2        |
| 3. Explain the terms with example: (a) Population (b) Sample                                             | BL2                      | CO1             |
| 4. Calculate the Arithmetic Mean of 12, 18, 14, 15, 16                                                   | BL3                      | CO2, CO3        |
| 5. Calculate Range and Coefficient of Range: Marks obtained by 5 students: 45, 60, 55, 50, 70.           | BL3                      | CO2, CO3        |
| 6. Differentiate between simple and multiple correlation with examples.                                  | BL2                      | CO1, CO2        |
| 7. List three types of regression with example.                                                          | BL2                      | CO1             |
| 8. What is a sample? How does it differ from population?                                                 | BL2                      | CO1, CO2        |
| 9. Define goodness of fit test with equation. Explain variables.                                         | BL1                      | CO1             |
| 10. Distinguish between null hypothesis and alternative hypothesis.                                      | BL2                      | CO1, CO2        |
| <b>Section B</b>                                                                                         |                          |                 |
| <b>Answer the following questions. Each carries 6 marks (Ceiling: 36 Marks)</b>                          |                          |                 |
| 11. Define classification of data. Explain the different types of classification with suitable examples. | BL4                      | CO1, CO2        |
| 12. Explain the difference between primary and secondary data collection.                                | BL4                      | CO1, CO2        |
| 13. Differentiate between the three types of skewness with diagrams.                                     | BL4                      | CO1             |
| <b>(PTO)</b>                                                                                             |                          |                 |

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| 14. | What is Standard Deviation? Calculate SD for the data: 23, 25, 28, 31, 38, 40, 46                        | BL3 | CO2, CO3 |
| 15. | Explain the difference between correlation and regression.                                               | BL2 | CO1      |
| 16. | Describe the scatter diagram method for measuring correlation. What are the different patterns observed? | BL2 | CO1, CO2 |
| 17. | Define one tailed and two tailed test. Plot the diagram.                                                 | BL2 | CO1, CO2 |
| 18. | Define statistical inference. Explain its two main branches: estimation and hypothesis testing.          | BL2 | CO1, CO2 |

### Section C

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

|     |                                                                                                                                                                                                          |     |          |
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| 19. | What is scales of measurement? With examples, explain the four scales of measurement and their significance.                                                                                             | BL4 | CO1      |
| 20. | What is measures of central tendency? Explain each measures. Find mean, median, mode, $Q_1$ , $Q_2$ , and $Q_3$ for the following data: 282, 754, 125, 765, 875, 645, 985, 235, 175, 895, 905, 112, 155. | BL3 | CO2, CO3 |

**CO : Course Outcome**

**BL : Bloom's Taxonomy Levels** (1 – Remember, 2 – Understand, 3 – Apply, 4 – Analyse, 5 – Evaluate, 6 – Create)