

**End Semester/Reappear (Semester IV) Examination May 2025**
**Programme: BBA**
**Course: Introduction to Business Analytics**
**Course Code:11CC207**
**Enrolment no. \_\_\_\_\_**
**Full Marks: 70**
**Time: 3 Hrs.**

| Q.N o.            | Questions  | CO  | Bloom Taxonomy Category | Marks              |
|-------------------|--|-----|-------------------------|--------------------|
| <b>Section I</b>  |  |     |                         |                    |
| 1                 | <b>Short Answer type questions.</b>  |     |                         | <b>4 x 5 = 20</b>  |
| a                 | Describe different types of analytics along with examples.   | CO1 | Understand              |                    |
|                   | or   |     |                         |                    |
| b                 | Define Data Mining and state the key benefits of using data mining in business analytics.  | CO1 | Remember                |                    |
|                   | or   |     |                         |                    |
|                   | Explain the term Data Blending in Analytics Methodology.   | CO2 | Understand              |                    |
| c                 | or   |     |                         |                    |
|                   | Illustrate the process of Data preparation in Analytics Methodology.   | CO2 | Apply                   |                    |
|                   | Explain the difference between seasonal and cyclical effects in a time series with real world example.   | CO3 | Understand              |                    |
| d                 | or   |     |                         |                    |
|                   | State the advantages and disadvantages of Moving Average Method.   | CO3 | Understand              |                    |
|                   | Differentiate between Web content mining and Web usage mining.   | CO4 | Understand              |                    |
|                   | or   |     |                         |                    |
|                   | Mention any two ethical issues involved in Business Analytics.   | CO4 | Remember                |                    |
| <b>Section II</b> |  |     |                         |                    |
|                   | <b>Long Answer type questions.</b>   |     |                         | <b>3 x 10 = 30</b> |
| 2                 | Distinguish among structured, semi structured and Unstructured data, provide suitable examples in each case.   | CO1 | Analyze                 |                    |
|                   | or   |     |                         |                    |
| 3                 | Explain dealing with missing or incomplete data in Business Analytics.   | CO1 | Evaluate                |                    |
|                   | or   |     |                         |                    |
|                   | Assess the significance of "Evaluation & Feedback" in the data preparation process, illustrating its impact with practical examples.                                   | CO2 | Evaluate                |                    |
| 4                 | or   |     |                         |                    |
|                   | Compare the advantages and limitations of tabular data analysis versus visual data representation, highlighting their respective strengths and applications.           | CO2 | Analyze                 |                    |
|                   | Explain the fundamental elements and operational principles of the Holt-Winters exponential smoothing technique, detailing its application in time series forecasting. | CO3 | Understand              |                    |
|                   | or   |     |                         |                    |

| <p>The demand for an item is observed for 15 months and recorded below:<br/>         Calculate i. 3 monthly and<br/>         ii. 4 monthly moving average.<br/>         What is the forecast for 16th month for each one.</p>   |  | CO5 | Understand         |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
|---|--|-----|--------------------|-------|--------|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|----|-----|----|-----|----|-----|----|-----|----|-----|----|-----|
| <table border="1"> <thead> <tr> <th>Month</th> <th>Demand</th> </tr> </thead> <tbody> <tr><td>1</td><td>280</td></tr> <tr><td>2</td><td>288</td></tr> <tr><td>3</td><td>266</td></tr> <tr><td>4</td><td>295</td></tr> <tr><td>5</td><td>302</td></tr> <tr><td>6</td><td>310</td></tr> <tr><td>7</td><td>303</td></tr> <tr><td>8</td><td>328</td></tr> <tr><td>9</td><td>309</td></tr> <tr><td>10</td><td>315</td></tr> <tr><td>11</td><td>320</td></tr> <tr><td>12</td><td>332</td></tr> <tr><td>13</td><td>310</td></tr> <tr><td>14</td><td>308</td></tr> <tr><td>15</td><td>320</td></tr> </tbody> </table> |  |     |                    | Month | Demand | 1 | 280 | 2 | 288 | 3 | 266 | 4 | 295 | 5 | 302 | 6 | 310 | 7 | 303 | 8 | 328 | 9 | 309 | 10 | 315 | 11 | 320 | 12 | 332 | 13 | 310 | 14 | 308 | 15 | 320 |
| Month   | Demand   |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 1   | 280  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 2   | 288  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 3   | 266  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 4   | 295  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 5   | 302  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 6   | 310  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 7   | 303  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 8   | 328  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 9   | 309  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 10  | 315  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 11  | 320  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 12  | 332  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 13  | 310  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 14  | 308  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 15  | 320  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| <b>Section III</b>  |  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| <b>Application based questions</b>  |  |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
| 5   | Assess the impact of Artificial Intelligence on the evolution of contemporary business strategies, supported by relevant case studies.                   | CO4 | Create             |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
|   | or   |     |                    |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
|   | Describe key Big Data tools and methodologies, highlighting how businesses leverage them to gain a competitive edge and drive strategic decision-making. | CO4 | Evaluate           |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |
|   |  |     | <b>1 x 20 = 20</b> |       |        |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |   |     |    |     |    |     |    |     |    |     |    |     |    |     |

**COURSE OUTCOME**

On completion of the Course, the students will be able to:

CO 1: Demonstrate the awareness and Knowledge of Business Analytics

CO 2: Interpret the analytics methodology

CO 3: Assess the relevance and effectiveness of business analytics solutions

CO 4: Apply the knowledge of technical skills in descriptive and predictive modeling to support business decision making