## UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
### Online End Semester Examination, May 2021

**Course:** Business Analytics **Semester: II**
**Program:** MBA Business Analytics **Time 03 hrs.**
**Course Code: DSBA 7005** **Max. Marks: 100**

## SECTION A
1. **Each Question will carry 5 Marks**
2. **Instruction: Complete the statement / Select the correct answer(s)**

| S. No. | Questions | CO |
|---|---|---|
| Q1 | What is Business Analytics? <br><br> a) Refers to the skills, technologies, practices for continuous iterative exploration and investigation of past business performance to gain insight and drive business planning. <br><br> b) Refers to all the methods and techniques that are used by an organization to measure performance. <br><br> c) Refers the practice of iterative, methodical exploration of an organization's data, with an emphasis on statistical analysis. <br><br> d) All of the above <br><br> e) None of the above | CO1 |
| Q2 | Which of the following is NOT a step in data cleansing? <br><br> a) Parsing <br> b) Correcting <br> c) Matching <br> d) Transmitting | CO2 |
| Q3 | Amongst the below roles, identify the most important role player in an analytics project. <br><br> a) Data Scientist <br> b) Data Engineer <br> c) Database Administrator <br> d) Business Analyst <br> e) Project Manager | CO2 |
| Q4 | What are the four types of data associated with Data Warehousing? Three of them are given. Identify the last one. | CO3 |

| | | |
|---|---|---|
| | a) Subject-oriented Data<br>b) Integrated Data<br>c) Non-volatile Data<br>d) ?? | |
| Q5 | What is the value of Y for the below linear regression equation?<br><br>The equation is $Y = mX + C$<br><br>| Y | X |<br>\|---\|---\|<br>\| 7 \| 2 \|<br>\| 11 \| 4 \|<br>\| ?? \| 12 \| | CO4 |
| Q6 | Identify the incorrect method for missing data handling<br><br>a) Listwise deletion<br>b) Pairwise deletion<br>c) Variable deletion<br>d) None of the above | CO2 |

## SECTION B

1. **Each Question will carry 10 Marks**
2. **Instruction: Write short or Brief Notes**

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|---|---|---|
| Q7 | Differentiate between data lake versus data mart versus data warehouse. | CO1 |
| Q8 | What are the differences between list wise deletion, pair wise deletion, and variable deletion? Explain with examples. | CO3 |
| Q9 | What is outlier detection? How do we use box plot, scatter plot and histogram to detect outliers. | CO4 |
| Q10 | Mention and explain the two features of forecasting using time-series models. | CO3 |
| Q11 | What are constrained versus unconstrained problems in non-linear programming?<br><br>OR<br><br>What is predictive and descriptive analytics? How do predictive and descriptive analytics lead to prescriptive analytics? | CO4 |

## SECTION C

1. **Each Question will carry 20 Marks**
2. **Instruction: Write long answers**

| | | |
|---|---|---|
| Q12 | What are the five steps in data cleansing? Explain each step with proper example.<br><br>OR<br><br>What are the steps in a simulation study? Explain with flow chart. | CO4 |