



MCA (Artificial Intelligence and Data Science) I () - II (Main/Back) End Semester Examination,
23MCDCCA2101: Data Science and Analytics

Time: 3 Hours

Total Marks: 60

Min. Passing Marks: 21/24/27

Question Paper ID: 001103

Instructions: Attempt all five questions. There is an internal choice either (a or b) in Q1 to Q5. Marks of each question or its parts are indicated against each question/part. Draw neat sketches wherever necessary to illustrate the answer. Assume missing data suitably (if any) and clearly indicate the same in the answer.

Bloom Level(BL): 1-Remembering, 2-Understanding, 3-Appling, 4-Analysing, 5-Evaluating, 6-Creating

Use of following supporting material is permitted during examination for this subject: Nil

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|------------|------------|--|--------------|-----------|-----------|
| Q1. | (a) | (i) Explain different types of charts and graphs used in statistics. [6 marks]
(ii) Explain Contingency Table with examples? [6 marks] | Marks | BL | CO |
| | | (OR) | | | |
| | (b) | (i) Discuss central limit theorem regarding distribution? [6 marks]
(ii) Describe the correlation in statistics and explain different types of correlation with respect with "r".? [6 marks] | 12 | 1 | 1 |
| Q2. | (a) | (i) Describe the life cycle of data analytics in brief? [6 marks]
(ii) Discuss difference between the regression and classification. [6 marks] | Marks | BL | CO |
| | | (OR) | | | |
| | (b) | (i) Explain regression and it's types . [6 marks]
(ii) There are three urns containing white and black balls. The first urn has 3 white and 2 black balls, the second urn has 2 white and 3 black balls, and the third urn has 4 white and 1 black ball. One urn is chosen at random, and a ball is selected from it, which turns out to be white. What is the probability that it came from the third urn? [6 marks] | 12 | 1 | 2 |
| Q3. | (a) | (i) Define Decision Support system in brief? (6 marks)
(ii) Explain role of business intelligence tools in data analytics in brief and also give some BI tools names ? [6 marks] | Marks | BL | CO |
| | | (OR) | | | |
| | (b) | (i) Explain Business architecture in detail? [6 marks]
(ii) Discuss use case of Decision support system and business intelligence in nowadays? [6 marks] | 12 | 1 | 3 |
| Q4. | (a) | (i) What is voice of customer Data Analytics and types of it? [6 marks]
(ii) What is Clickstream Data and explain data metrics used for it? [6 marks] | Marks | BL | CO |
| | | (OR) | | | |
| | (b) | (i) What is competitive intelligence and how it is works ? [6 marks]
(ii) Explain Experimentation and testing in terms of business models? [6 marks] | 12 | 1 | 4 |
| Q5. | (a) | What is two way of communication in social media and how to use it as your social media strategy ? [12 marks] | Marks | BL | CO |
| | | (OR) | | | |
| | (b) | (i) Discuss about Social media and business and types of social media ? [6 marks]
(ii) Explain social media landscape and benefit's of social media ? [6 marks] | 12 | 1 | 5 |

End of Question Paper