U-5178

M. C. A. (Sem.-II) Examination, 2021

PAPER - MCA-201

Data Science

Time allowed : **Three Hours**

Maximum Marks : **70**
(Min. Pass Marks : **28**)

Note : This question paper will be divided into three sections as under.

Section-A ***Max. Marks-10***

Will carry 10 marks with 01 compulsory question comprising 10 short answer type questions (Maximum 20 words answer) taking two questions from each unit. Each question shall be of one mark.

Section-B ***Max. Marks-25***

Will carry 10 questions. 02 questions from each unit (answer about in 250 words). Students are instructed to attempt five questions by selecting one question from each unit. Each question shall be of five marks.

Section-C ***Max. Marks-35***

*Will carry **35** marks with five long answer type questions comprising one compulsory question (question no. 07) of **15** marks and four questions of **10** marks each. Students are instructed to attempt total three questions with one compulsory question (answer about in 500 words) and any two more questions (answer about in 400 words) out of remaining four questions.*

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SECTION - A

1 Answer the following :

(i) What is Data Science?

(ii) How is Data Science different from traditional programming?

(iii) What is R programming language?

(iv) Why R is used in Data visualisation?

(v) What are the popular libraries used in Data Science?

(vi) What do you mean by Data cleaning?

(vii) List out some functions that R provides.

(viii) What are the features of Data frame?

(ix) What is the use of apply ( ) method in R?

(x) Explain vectorised operations in R.

SECTION - B

UNIT - I

2 Explain the role and stages of Data Science

OR

What are the applications of machine learning in Data Science? https://www.uokonline.com

UNIT - II

3 How to install the R-studio?

OR

What are input and output in R-language?

UNIT - III

4 Explain the different data types in R-language.

OR

How to getting the data in and out of R-languge.

UNIT - IV

5 What is meant by exploratory data analysis?

OR

How do you import data in R?

UNIT - V

6 Explain reproducible research in data analysis.

OR

Explain the use of R Markdown.

SECTION - C

7 What are the differences between Data Science, Machine learning and Artificial Intelligence?

8 What are the main components of 'R' and explain basic R commands.

9 Explain the general techniques to handle large volume of data.

10 What are data frames? Write its significance in R-language.

11 Describe how R can be used for predictive analysis.

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