

(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2021 ONLY)

21UBC5E3

REG.NO. :

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS: NOVEMBER-2023

COURSE NAME: BCA

MAXIMUM MARKS: 70

SEMESTER: V

TIME : 3 HOURS

**PART - III**  
**DATA SCIENCE**

**SECTION - A**

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**(K1)**

**MULTIPLE CHOICE QUESTIONS.**

1. Identify the words which best describe Python\_\_\_\_\_.  
(a) Interpreted (b) reliable  
(c) simple (d) All of these
2. Which of the following are correct skills for a Data Scientist?  
(a) Probability & Statistics (b) Machine Learning / Deep Learning  
(c) Data Wrangling (d) All of the above
3. The fundamental unit of the neural network is\_\_\_\_\_.  
(a) Neuron (b) Brain  
(c) Nucleus (d) Dendrites
4. Machine learning is a subset of which of the following\_\_\_\_\_  
(a) Artificial intelligence (b) Deep learning  
(c) Data learning (d) None of the above
5. What are the different types of attributes?  
(a) Nominal (b) Ordinal  
(c) Spacial (d) All of the above

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES.**

**(K2)**

6. List why do we need Python?
7. Define data wrangling.
8. What is the use of Logistic regression?
9. What is meant by reinforcement learning?
10. Why is data preprocessing required?

**(CONTD.....2)**

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**SECTION – B**

**(5 X 4 = 20 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Describe modules in python.

**(OR)**

b) Describe the types of objects in the R language.

12. a) Explain the steps in a data science process.

**(OR)**

b) Discover the Roles and Responsibilities of a Data Scientist.

13. a) Write a note on Natural Language Processing.

**(OR)**

b) Exemplify N-gram model.

14. a) What are the components of machine learning? Explain.

**(OR)**

b) Compare K-Means and DBSCAN.

15. a) Find the ways to handle the missing data in the dataset.

**(OR)**

b) What is categorical data? Explain its types.

**SECTION - C**

**(4 X 10 = 40 MARKS)**

**ANSWER ANY FOUR OUT OF SIX QUESTIONS**

**(16<sup>th</sup> QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS  
(FROM Qn. No: 17 to 21) (K4 (Or) K5)**

16. Discuss on basic graphs using R with suitable examples.

17. Summarise the Cross Industry Standard process for Data Mining.

18. Discuss in detail Deep Neural Network.

19. Explain the classifications of machine learning algorithm with one or two suitable examples.

20. Write in detail about applications of Deep Learning.

21. Illustrate Normalization vs Standardization.

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