

MASTER OF COMPUTER APPLICATIONS (CBCS - 2020 COURSE)
M.C.A. Sem-III : WINTER : 2021
SUBJECT: ARTIFICIAL INTELLIGENCE

Day : Wednesday
Date : 12-01-2022

W-22738-2021

Time : 02:00 PM-05:00 PM
Max. Marks: 60

N. B. :

- 1) **Q. No. 4 is COMPULSORY** attempt **ANY TWO** questions from **Q. No. 1, 2, 3** from Section – I.
 - 2) Attempt **ANY TWO** questions from Section – II.
 - 3) Figures to the right indicate **FULL** marks.
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SECTION – I

- Q. 1** a) What is Artificial Intelligence? What are advantages of Artificial Intelligence? (06)
- b) Explain any two knowledge based systems. (06)
- Q. 2** Explain Travelling salesman problem in detail. (12)
- Q. 3** a) What are the steps of Natural Language Processing? (06)
- b) Differentiate between supervised and unsupervised learning. (06)
- Q. 4** Write short notes on **ANY THREE** of the following: (12)
- a) Inferential Knowledge
 - b) Non-monotonic reasoning
 - c) Fuzzy Logic
 - d) Neural Network

SECTION – II

- Q. 5** a) Explain different Data types of Numpy. (06)
- b) Explain slicing of an array. (06)
- Q. 6** a) Explain how to generate random numbers. (06)
- b) Explain mathematical operations on Numpy matrices. (06)
- Q. 7** a) Write a Numpy program to test whether any of the elements of a given array is non-zero. (06)
- b) Explain how to calculate Numpy mean. (06)

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