

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

Day : Tuesday
Date 15-02-2022

W-23065-2021

Time : 10:00 AM-01:00 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.

SECTION – I

- Q. 1** a) What is Artificial Intelligence? What are applications of Artificial Intelligence? (06)
- b) What are the components of knowledge based system? (06)
- Q. 2** Explain water-jug problem in detail. (12)
- Q. 3** a) Explain resolution technique by example. (06)
- b) What is sentiment analysis in Natural Language Processing? (06)
- Q. 4** Write short notes on **ANY THREE** of the following: (12)
- a) Informed and Uninformed Search
 - b) Inheritable Knowledge
 - c) Bay's Theorem
 - d) Supervised learning

SECTION – II

- Q. 5** a) What is the difference between Numpy and Pandas? (06)
- b) Explain arithmetic operations on an array. (06)
- Q. 6** What are the basic components of data structures supported by Pandas? Explain with example. (12)
- Q. 7** Explain following functions on series: (12)
- a) axes
 - b) dtype
 - c) empty
 - d) Ndim
 - e) Size
 - f) Values

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