Total No. of Questions : 8]

SEAT No. :

P-715

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[6004]-716
B.E. (Computer Engineering) (Data Science) (Honors)
ARTIFICIAL INTELLIGENCE FOR BIG DATA ANALYTICS
(2019 Pattern) (Semester - VIII) (410503)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answer Q.No.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Assume suitable data, if necessary.***

Q1) a) Explain fundamental of neural networks in big data. **[6]**

b) What is perceptron? Explain Types of Perceptron. **[6]**

c) What is feed forward neural netwok explain with example. **[8]**

OR

Q2) a) Explain architecture of artificial neural networks. **[6]**

b) Difference between linear and nonlinear neural networks? **[6]**

c) Explain recurrent neural networks with example. **[8]**

Q3) a) What is Spark? Explain the key features of Spark. **[4]**

b) What is Hadoop Streaming? How Streaming is works in Hadoop. **[6]**

c) Explain map reduce in big data with example. **[8]**

OR

Q4) a) Explain the pyspark in big data analytics using hadoop. **[4]**

b) Explain Hadoop Ecosystem in detail. **[6]**

c) What is HDFS? Explain Hadoop Distributed File System architecture. **[8]**

P.T.O.

Q5) a) Explain Scalable Machine Learing on Big Data using Spark. **[6]**

b) What are the different Features of Hive in Big Data. **[6]**

c) Write a short note on: Data Warehousing. **[4]**

OR

Q6) a) What are the different key characteristics of a Data Warehouse? **[6]**

b) What is Hive Big Data and its Benefits? **[6]**

c) Write a short note on: Data mining. **[4]**

Q7) a) Explain the challenges of natural language processing. **[6]**

b) List and explain the applications of computer vision. **[6]**

c) Explain NLP application: Sentiment Analysis. **[4]**

OR

Q8) a) List and explain the applications of NLP. **[6]**

b) Explain in details feature extraction of NLP. **[6]**

b) Explain object detection application in Computer Vision. **[4]**