Bachelor of Engineering
Eighth Semester Main Examination, Aug-Sep 2020
Soft Computing [CS-801]
Branch-CS

Time: 3:00 Hrs   **Max Marks 70**

Note: **(i) Attempt any five questions.**

             (ii) Answer should be precise & to be point only.

             (iii) Assume suitable data if necessary & state them clearly.

Q.1   (a) What do you understand by Soft Computing? Explain Difference between soft   computing   and hard computing.
           (b) Explain different techniques used in soft computing.

Q.2   (a) Write down A* algorithm with suitable example.
           (b) Explain hill climbing technique.

Q.3   (a) Distinguish between supervised learning and unsupervised learning.
           (b) What is ANN? Explain characteristics and application of ANN.

Q.4   (a) Explain ADALINE and MADALINE network.
           (b) Define following -
           i) Hebb's learning
           ii) Boltzmann machine

Q.5   (a) Explain the working of back propagation neural network.
           (b) Explain in brief counter propagation network.

Q.6   (a) What is fuzzy logic? Distinguish between fuzzy set and crisp Set.
           (b) Explain different types membership functions used in fuzzification   process.

Q.7   (a) How does genetic algorithm is differ from traditional algorithms? Give the   advantages   of   GA   over traditional algorithms.
           (b) Explain different types of crossover functions in genetic Algorithm.

Q.8   Write short note on- (any three)
           i) Production system
           ii) ANN v/s human brain
           iii) Tournament selection
           iv) Roulette wheel selection

Bachelor of Engineering
Eighth Semester Main Examination, Aug-Sep 2020
Web Engineering [CS-802]
Branch-CS

Time: 3:00 Hrs   **Max Marks 70**

Note: **i) Attempt any five questions out of eight.**

Q.1   (a) Write down the differences between software engineering and Web engineering
       (b) Define Following: (Any Two)
       (i) TCP/IP   (ii) DNS   (iii) TELNET.

Q.2   (a) What is CSS? Explain different mechanisms used to apply CSS to HTML pages.
       (b) Explain the characteristics of DHTML. Compare and contrast HTML and   DHTML with suitable
examples.

Q.3   (a) How can we create forms in HTML? Explain with examples?
       (b) Differentiate between HTTP versus FTP?

Q.4   (a) What is List? Explain different types of lists used in HTML
       (b) What is an XML schema? With an example explain the working of XML   schema.

Q.5   (a) Explain various models of E-commerce?
       (b) What is a frame? How can we create nested frames?

Q.6   (a) Explain the following input components in HTML forms with proper   syntax of corresponding
HTML tags.
       (i) Text Input
       (ii) Selectable list with multiple selection option
       (iii) Radio Buttons
       (b) What is a cyber crime? What are different categories of cyber crimes?

Q.7   (a) How digital signature and firewalls are used for security purpose? Explain in detail.
       (b) What is E-commerce? What are the key factors responsible for the success of   the present day of
the web commerce?

Q.8   Define Following:
       (i) PERL   (ii) JSP   (iii) ASP & AJAX   (iv) PHP

Bachelor of Engineering
Eighth Semester Main Examination, Aug-Sep 2020
Data Mining and Knowledge Discovery [CS-8203]
Branch-CS

Time: 3:00 Hrs   **Max Marks 70**

Note: i) Attempt any five questions out of eight.

ii) All questions carry equal marks.

iii) Assume suitable data if necessary & state them clearly.

iv) Answer should be precise & to be point only.

Q.1   (a) Discuss in detail the application of data mining for financial data analysis.   Give suitable
data flow diagram.
       (b) What is a data warehouse? Discuss most important issues in data warehouse   implementation.

Q.2   (a) How is data warehouse different from a database? How they are similar?
        (b) What is a data mart? Write the difference between independent, dependent   data mart.

Q.3   (a) How do association rules differ from traditional production rules? Explain.
        (b) What do you mean by data preprocessing? Why it is needed?

Q.4   (a) How many types of clustering methods are there? Explain any one   partitioning clustering algorithm.
        (b) Explain Apriori algorithm with examples.

Q.5   (a) Explain the various strategies of data reduction.
        (b) Describe the issues to be considered during data integration.

Q.6   (a) Differentiate between OLTP and OLAP.
        (b) What do you mean by data reduction techniques? Discuss attribute selection   method with the help of suitable example.

Q.7   (a) Describe various methods used for cleaning data before it is loaded in the   data warehouse.
        (b) Explain OLAP operations in multidimensional data model.

Q.8   Explain and compare the following by suitable example-
        (i) Fact constellations   (ii) Star schema

Bachelor of Engineering
Eighth Semester Main Examination, Aug-Sep 2020
Wireless Network Web & Ontologies [CS-8303]
Branch-CS

Time: 3:00 Hrs   **Max Marks 70**

Note: i) Attempt any five questions out of eight.
**   ii) All questions carry equal marks.**
**   iii) Answer should be precise & to be point only.**
**   iv) Assume suitable data if necessary & state them clearly.**

Q.1   (a) What do you mean by wireless networks? Explain different generations   of wireless networks.
        (b) Discuss the principle of radio propagation mechanism.

Q.2   (a) Discuss about the effects of multipath and Doppler.
        (b) Discuss about wireless network topologies.

Q.3   (a) Discuss about the path loss modeling and signal coverage.
        (b) What are the advantages and disadvantages of CDMA cellular   network?

Q.4   (a) Discuss the principle of GPRS.
        (b) Discuss the technologies used for home area network (HAN).

Q.5   (a) What do you understand by wireless LAN? Write down some   important requirements for wireless LANs.

(b) What is amplitude modulation?

Q.6   (a) Explain GSM architecture with neat diagram.
       (b) Compare SDMA, TDMA, FDMA and CDMA in terms of   transmission technique, signal separation, advantages, disadvantages and   applications.

Q.7   (a) Explain the protocol architecture of Bluetooth.
       (b) Explain the layered protocol architecture of 802.11 standard.

Q.8   (a) What do you mean by 2.5G and 3G?
       (b) What is Ad-hoc network? What are the challenging issues in Ad-hoc network maintenance?