2015
MCA
5th SEMESTER EXAMINATION
PAPER—503

Full Marks : 100
Time : 3 Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.
Illustrate the answers wherever necessary.

Elective—I

(INTERNET TECHNOLOGY)

Answer Q. No. 1 and any four from the rest.

1. Answer any five questions : 5×2

(a) RIP and OSPF is based on _____ and _____ algorithm.

(b) What is trigger update?

(c) What is TTL? What is the maximum hop-count of RIP?

(Turn Over)
(d) What is periodic update?
(c) What is tag?
(f) What is hyperlink?
(g) What is event? Give two examples.

2. (a) What is CSS? What are the advantage of CSS?  
2+3
(b) Describe all the CSS measurement unit with proper example.  
5
(c) Describe in detail three properties of a border in CSS.  
5

3. (a) What is Cookie? How it works? Write the syntax to store Cookie?  
2+2+3
(b) What are the advantages and limitations using JavaScript?  
2+2
(c) What is alert box? How it created?  
4

4. (a) What is the difference between static and dynamic webpage? What do you mean by active webpage?  
3+2
(b) Create an HTML page with the following features: Hyperlink, Navigation, Button, Tables, Forms.  
6
(c) What is DOCTYPE? Compare Java Technology and Microsoft Technology.

\[ \frac{1}{2} + 1 \frac{1}{2} \]

5. (a) Briefly discuss about various types of attack. 6
(b) What is Intranets and Extranets? Differentiate both. 3
(c) What is firewall? Describe about various types of firewall. What is the difference between firewall and intrusion detection system. 1+3+2

6. (a) Briefly describe IPV4 header format. 7
(b) You can given 172.16.0.0 IP address, and you have to create 513 sub-networks.
(i) What will be the new subnet mask?
(ii) What will be the broadcast address of last network?
(iii) Maximum how many computer can be connected in a single sub-network?
(iv) What is the network address of last network? 2+2+2+2
7. Write shorts note on any three:

(a) Telnet;
(b) FTP;
(c) URL;
(d) http;
(e) Netstat;
(f) Traceroute.

\textbf{[Internal Assessment]} \hfill 30

\textbf{(Pattern Recognition)}

Answer any five questions: \hfill 5×14

1. Answer any five questions: \hfill 5×2

(a) What do you mean by pattern recognition? Write its applications. \hfill 2+3

(b) Describe the components of pattern recognition system. \hfill 5

(c) Write the differences between supervised and unsupervised learning. \hfill 4
2. (a) What do you mean by speech recognition? 4
   (b) Write about the speech recognition system. 5
   (c) Write the categories of speech recognition system.
       Describe template matching procedure. 2+3

3. (a) Write the differences between Eager and Lazy Learning. 3
   (b) Give an example of Eager Learner Method. 2
   (c) What do you mean by Classification? 2
   (d) Describe K-NN method for Classification. 7

4. (a) What is cluster analysis? Write its applications. 2+3
   (b) Explain the importance of quality measurement in clustering. 4
   (c) Describe the partitioning approach in clustering. 5

5. Write short notes on any four: 4×3 1/2
   (a) Feature selection;
   (b) Feature extraction;
   (c) ANN;
   (d) Unsupervised learning;

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(Turn Over)
(e) Good clustering;
(f) Template matching.

6. (a) What do you mean by syntactic pattern recognition?
(b) Explain syntactic pattern recognition with the help of a block diagram.
(c) Describe syntax parsing.

7. (a) What is feature reduction?
(b) Write the differences between feature reduction and feature selection.
(c) What is LDA? How LDA use in feature reduction and feature selection techniques?

[Internal Assessment]