UG/5th Sem/Comp(H)/Pr/19

2019

B.Sc. (Honours)

5th Semester Examination

COMPUTER SCIENCE

Paper - DSE-2P

Set - I

Full Marks : 20   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.

[Network Programming Lab]

Answer any *one* question.   15×1=15

1. Write a program to construct a TCP server which is able to communicate with a client. The server receives a message from the client and sends back the same message to it.

2. Write a program to construct a TCP client which sends to and receives a message from a server.

[Turn Over]

3. Write a program to create a UDP echo server.

4. Write a program to create a UDP client which is able to communicate with a UDP server.

5. Write a program to demonstrate a multicast sender.

6. Write a program to demonstrate a multicast receiver.

7. Write a program to create an HTTP server which sends the present date and time to the client, communicating with it.

8. Write a program to construct an HTTP client which can communicate with an HTTP server and receives the message and displays it.

[Viva-Voce : 3   PNB : 2]

[Computational Linguistics]

Answer any *one* question.   15×1=15

1. Write a python program to split the test sentence/ paragraph into a list of words.

2. Write a python program to create a list of words from a given string.

3. Write a python program to split all punctuation into separate tokens.

4. Write a python program to tokenize words sentence wise.

5. Write a python program to tokenize a twitter text.

6. Write a python program to remove Twitter username handles from a given twitter text.

7. Write a python program that will read a given text through each line and look for sentences. Print each sentence and divide two sentences with "= = = = = = = = = = = = = = = ="

8. Write a python program to find parenthesized expressions in a given string and divides the string into a sequence of substrings.

[Viva-Voce : 3   PNB : 2]

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(4)

[Machine Learning (Prac)]

Answer any *one* question.   15×1=15

Answer any *one* question using MATLAB/octav Python
15×1=15

1. Write a program to find the count of each element in a list.

2. Implement XOR operation. [Using function]

3. Write a program to perform matrix multiplication.

4. Write a program to find out transpose of a given matrix : Use for loop.

5. Write a program to find the size of an image.

6. Write a program to find hash of file.

7. Write a program to illustrate different set operation.

8. Write a program to check if a string contains any special character or not.

9. Write a program to check to URL in a string.

10. Write a program to merge two dictionaries.

[Viva-Voce : 3   PNB : 2]

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COMPUTER SCIENCE

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Set - II

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in their own words as far as practicable.

[Network Programming Lab]

Answer any *one* question.   15×1=15

1. Write a UDP echo server program using socket.

2. Write a TCP client program that ask for time to the TCP server.

3. Write a TCP echo client program using socket.

4. Write a program that implement stream server.

[Turn Over]

5. Write a simple TCP client server program that behaves like TELNET.

6. Write a socket program to print all client IP address and their port.

7. Write a UDP server program that receives a string of character from the client.

8. Write a program to implement character send and receive from the server.

[Viva-Voce : 3   PNB : 2]

[Computational Linguistics]

Answer any *one* question.   15×1=15

1. Write a program in Python to determine if a sentence is simple, complex or compound.

2. Write a program in Python to read a sentence and find the longest word in that sentence. Also compute its length.

3. Write a program in Python to read a paragraph and find the verbs within it.

(3)

4. Write a Python program to read a paragraph and determine the no. of lines and no. of characters in each line.

5. Write a program in Python to calculate the number of tokens in a string.

6. Write a program in Python to retrieve and print first ten tweets corresponding to a hashtag search.

7. Write a program in Python to find a parenthesized expression from a given string.

8. Write a program in Python to check if a numerical expression is valid or not.

[Viva-Voce : 3   PNB : 2]

[Machine Learning (Prac)]

Answer any *one* question using MATLAB/octav Python.

15×1=15

1. Write a program to implement XOR operation.

2. Write a program to perform matrix multiplication.

[Turn Over]

(4)

3. Write a program to find the maximum & minimum value in a matrix.

4. Write a program to check whether an email is spam or not. (The dataset may be created by the student or provided by the instructor/examiner)

5. Write a program to find the sum of diagonal elements of a matrix.

6. Write a program to create a plot based on sine function.

7. Write a program to find transpose of a matrix : Use for loop.

8. Write a program to create a histogram of an image.

[Viva-Voce : 3   PNB : 2]