Code No. 3199 / BL

FACULTY OF SCIENCE

B.Sc. V-Semester (CBCS) Examination, June / July 2019

Subject : Computer Science

Paper – VI (B) : Software Engineering (DSE E - 2)

Time : 3 Hours **Max. Marks: 60**

PART – A (5 x 3 = 15 Marks)
(Short Answer Type)
Note : Answer any FIVE of the following questions.

1 Explain cost estimation for software maintenance.
2 Discuss how the specifications are validated and traced.
3 Explain cloud computing architecture.
4 Describe state machine diagram with an example.
5 Differentiate verification and validation process.
6 Write short notes on Code Reuse.
7 Explain prototype model for software development.
8 Write about Block Box Testing.

PART – B (3 x 15 = 45 Marks)
(Essay Answer Type)
Note: Answer ALL questions.

9 (a) Explain software development plan in detail.

OR

(b) Describe SRS structure in detail according to IEEE standards.

10 (a) Explain object oriented architecture with an example.

OR

(b) What is decision table? Explain with structure and an example.

11 (a) Explain components based software engineering architecture with an example.

OR

(b) Describe various quality metrics in detail.

*****

Code No. 3197/BL

FACULTY OF SCIENCE

B.Sc. V-Semester (CBCS) Examination, June / July 2019

Subject : Computer Science

Paper – V : Programming in Java (DSC)

Time : 3 Hours **Max. Marks: 60**

PART – A (5 x 3 = 15 Marks)
(Short Answer Type)
Note : Answer any FIVE of the following questions.

1 What is the major difference between an interface and a class?
2 When do we declare a method or class abstract?
3 How do we set priorities for threads?
4 Define package. Write the syntax to create and import and package.
5 Explain JTable in swings with an example program.
6 What are the types of JDBC drivers?
7 Define thread. How do we start a thread?
8 Write about FileInputStream and FileOutputStream class.

PART – B (3 x 15 = 45 Marks)
(Essay Answer Type)
Note: Answer ALL the questions.

9 (a) Define class. Explain about class declaration, creating objects, methods declaration and invocation with syntax and an example.

OR

(b) Define inheritance. Explain the different types of inheritance. Write a program to demonstrate multiple inheritance in java.

10 (a) Define package. How do we add a class to package? Discuss the various levels of access protection available with an example.

OR

(b) What is a random access file? Why do we need a random access file? Write a program for reading / writing using random access file.

11 (a) Explain about JFrame, JApplet and JPanel by giving an example for each.

OR

(b) Explain the basic steps in developing a JDBC applications.

*****

Code No. 3198 / BL

FACULTY OF SCIENCE

B.Sc. V-Semester (CBCS) Examination, June / July 2019

Subject : Computer Science

Paper – VI (A) : Operating Systems (DSE E - I)

Time : 3 Hours **Max. Marks: 60**

PART – A (5 x 3 = 15 Marks)
(Short Answer Type)
Note : Answer any FIVE of the following questions.

1 Explain multiprocessor systems.
2 Write about process states.
3 What is resource-allocation graph? Give example.
4 What is starvation? When it will occur?
5 Write about physical verses logical addresses.
6 Define fragmentation and give example.
7 What is thrashing?
8 Explain Timesharing systems.

PART – B (3 x 15 = 45 Marks)
(Essay Answer Type)
Note: Answer ALL questions.

9 (a) What is a system call? Explain different types of system calls.

OR

(b) Explain OS services and OS structure.

10 (a) Explain FCFS and Round Robin CPU scheduling algorithms with the help of same example and performance.

OR

11 (a) What is free-space management? Explain any one algorithm with example for it.

OR

(b) Explain the structure and use of segmentation and paging with the help of neat diagram.

*****

Code No. 3196

FACULTY OF SCIENCE

B.Sc. V-Semester (CBCS) Examination, November / December 2018

Subject : Computer Science (Information Technologies - I)

Paper – V (GE – 1)

Time : 1½ Hours **Max. Marks: 40**

Note: Answer all questions from Part – A and Part-B.
Each question carries 5 marks in Part – A and 15 marks in Part – B.

PART – A (2 x 5 = 10 Marks)
(Short Answer Type)

1 (a) Explain the characteristics of a computer.

OR

(b) What is cache memory and primary memory?

2 (a) With the help of a diagram, explain the utility if middleware.

OR

(b) What type of information is stored in the Process Control Block?

PART – B (2 x 15 = 30 Marks)
(Essay Answer Type)

3 (a) (i) How computer can be classified? Explain
(ii) Describe various secondary storage devices.

OR

(b) (i) Explain the various memory hierarchies with neat block diagram.
(ii) Draw the block diagram of a computer and explain.

4 (a) (i) Distinguish between application software and system software.
(ii) What are the ways in which an organization can acquire software?

OR

(b) (i) What is the role of the operating system in Device management?
(ii) Explain the features of windows operating system.

*****

Code No. 3195

FACULTY OF SCIENCE

B.Sc. V-Semester (CBCS) Examination, November / December 2018

Subject : Computer Science (F : Computer Organization)

Paper – V (SEC – 3)

Time : 1½ Hours **Max. Marks: 40**

Note: Answer all questions from Part – A and Part-B.
Each question carries 5 marks in Part – A and 15 marks in Part – B.

PART – A (2 x 5 = 10 Marks)
(Short Answer Type)

1 (a) Explain the working of SR Flip Flop with circuit diagram.

OR

(b) Discuss 4-bit Register with circuit diagram.

2 (a) Explain Comparator design using an iterative circuit.

OR

(b) Draw and explain Binary Adder.

PART – B (2 x 15 = 30 Marks)
(Essay Answer Type)

3 (a) Explain Half Adder and Full Adder with circuit diagram and truth table.

OR

(b) Describe 4-bit Binary Counter with timing diagram, circuit diagram and truth table.

4 (a) Explain the designing of sequential circuit using ROM ad PLA with circuit diagram and truth table.

OR

(b) Describe the Design and Working of Binary multiplier.

*****