

# GITAM

BRHJQYHVLW

(Estd. u/s 3 of the UGC Act, 1956)

## Centre for Distance Learning

(Approved by Joint Committee of UGC-AICTE-DEC)

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### SPDCA201 - OPERATING SYSTEMS

#### ASSIGNMENT – I 5 X 3 =15 Marks

1. Illustrate a simple operating system for a security control system.
2. What are the main responsibilities of an operating System?
3. Explain with a neat diagram the process states.
4. Explain the process control block with a diagram.
5. What is a dead lock and what are the focus conditions that will create the deadlock situation?

#### ASSIGNMENT – II 5 X 3 =15 Marks

6. What are race conditions? How race conditions occur in operating system.
7. Define overlay, swapping each with an example.
8. Explain segmentation.
9. Explain Disk scheduling.
10. Explain about windows 2000 file system.

### SPDCA202 - DATA COMMUNICATION AND COMPUTER NETWORKS

#### ASSIGNMENT – I 5 X 3 =15 Marks

1. Write about network topologies.
2. Applications of networks.
3. Write in detail about layers of TCP/IP reference model.
4. Explain digital to analog encoding technique.
5. Differentiate circuit switching and packet switching

#### ASSIGNMENT – II 5 X 3 =15 Marks

6. Write about CRC for error detection and correction.

7. Explain pure ALOHA and slotted ALOHA.
8. Compare between virtual circuit and datagram subnet.
9. Describe shortest path routing algorithm.
10. Explain the concept of flow control, error control and buffering.

### SPDCA203 – OBJECT ORIENTED TECHNOLOGIES AND JAVA PROGRAMMING

#### ASSIGNMENT – I 5 X 3 =15 Marks

1. Explain why Java is platform independent. Also explain advantage of platform independence.
2. What are different relational operators in Java? Write a Java program to explain the use of relational operators?
3. What is Interface in Java? Why abstract classes are used in inheritance? Write a Program in Java to explain interface and Multiple Inheritance in Java?
4. What is variable size array? Write a program to explain the use of variable size array in Java.
5. What is an exception? Explain different types of exceptions in Java. Also explain how an exception subclass is created, in Java.

#### ASSIGNMENT – II 5 X 3 =15 Marks

6. Differentiate between String and String Buffer classes. Also write a program to append a given string.
7. What is Multithreading? Explain different ways of implementation of multithreading in java.
8. What is Layout Manager? Explain Different Layout managers available in java.
9. What is JDBC? Write a Java program to make a JDBC connection.
10. Explain the following with suitable example  
(a) RMI (b) Swing (c) Applet (d) Java Bean

**SPDCA204 - SOFTWARE ENGINEERING**

**ASSIGNMENT – I      5 X 3 =15 Marks**

1. Write a brief note on software development tools.
2. Write a note on software requirement specification (SRS) & problems is SRS.
3. Quality is built into the software during design phase. Explain?
4. Write a note on black box & white box testing.
5. Write about different types of project metrics?

**ASSIGNMENT – II      5 X 3 =15 Marks**

6. What is a risk? How are risks manager?
7. Write a note on attributes of software quality.
8. What are characteristics of a web application & Write a note on metrics?
9. Write a note on wireless application development using J2ME.
10. Case tools support the analysis & design phases of software. Explain.

**SPDCA205 - DESIGN AND ANALYSIS OF ALGORITHMS**

**ASSIGNMENT – I      5 X 3 =15 Marks**

1. Explain about asymptotic functions of notations.
2. Explain Quick sort with an example.
3. Write about heap sort with an example.
4. Explain about the analysis of non-recursive control structures.
5. Explain about Depth-first-search and Breadth-first-search.

**ASSIGNMENT – II      5 X 3 =15 Marks**

6. Write about Matrix multiplication using dynamic programming.
7. Explain in detail about finite automata.
8. Explain about PDA and CFG.
9. Write about notations for Growth of functions.
10. Explain in detail about establishing NP-completeness of problems.

**SPDCA206 – COMPUTER GRAPHICS AND MULTIMEDIA**

**ASSIGNMENT – I      5 X 3 =15 Marks**

1. Explain the applications of computer graphics.
2. Explain brazen hams line generation Algorithm.
3. Explain the Cohen-Sutherland line clipping algorithm.
4. Explain perspective projections.
5. Explain Bezier surfaces.

**ASSIGNMENT – II      5 X 3 =15 Marks**

6. Explain visible surface detection.
7. Explain the basic ray tracing algorithm.
8. What is Gourand shading or Intensity Interpolation scheme?
9. Give a brief description of computer animations tools.
10. Importance of Multimedia.

**NOTE:**

- 1) **Last date for submission of assignments for all the courses / papers is- 15-10-2018**
- 2) **Non-submission of assignments as per the scheduled date mentioned above attracts a fine of Rs. 200/- upto 31-10-2018 per each assignment of a course / paper and under any circumstances the assignments will not be accepted from 1st November, 2018.**
- 3) **Assignments are to be written in the Book-lets provided by CDL and other formats are not accepted.**
- 4) **Answer all 10 questions, in a single book only.**