



Centre for Distance Learning

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

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SPDCA 201 - OPERATING SYSTEMS

ASSIGNMENT- 1 5 X 3 =15 Marks

- 1.What do you understand by Virtual Memory? Explain in detail about its features
- 2.Differentiate between UNIX and WINDOWS 2000 with regard to
- 3.What is the role of operating system in providing the security and protection?
- 4.Write about Multiprocessor? How is it different from multi tasking
- 5.Explain the concepts of processes and threads in Windows 2000 Operating System

ASSIGNMENT- 2 5 X 3 =15 Marks

- 6.What is Data security? How it is done? Explain it detail
- 7.Why operating system is known as Resource Manager Identify the resources it managers
- 8.Explain how synchronization achieved in multiprocessor Systems
- 9.What is Deadlock? Write different deadlock avoiding methods
- 10.Find out the number of page faults occurred when paging the following pages using FIFO use the page table size as 3

3 2 0 1 2 3 3 2 1 0 0 1 2 3 2 2
5 1 2 3 6 1 2 2 3 5

MCA-2

1

SPDCA 202 - DATA COMMUNICATION AND COMPUTER NETWORKS

ASSIGNMENT- 1 5 X 3 =15 Marks

- 1.Explain a technique to correct the error in message transmission
- 2.Explain the different types of point to point a switched networks?
- 3.Explain the different types of routers identified by OSPF, the interior gateway routing protocol
- 4.Explain various CSMA access protocols
- 5.Compare and contrast Broadcast Routing with multicast routing

ASSIGNMENT- 2 5 X 3 =15 Marks

- 6.How to establish & terminate a connection with TCP
- 7.Explain IP addressing shortest path routing algorithm
- 8.Explain in detail about Error Detection and Correction Techniques
- 9.Explain Digital to Analog Modulation
- 10.Describe the features of various types of Network Models

MCA-2

2

SPDCA 203 - OBJECT ORIENTED TECHNOLOGIES AND JAVA PROGRAMMING

ASSIGNMENT- 1 5 X 3 =15 Marks

- 1.Explain how to send SQL statements to DBMS by using Prepared Statement
- 2.Define thread? Explain about Java Thread Model
- 3.Write a Java program for creating check box and Text fields in Java
- 4.What is the Graphics method for Manipulating Fonts?
- 5.Explain about Border Layout Manager?

ASSIGNMENT- 2 5 X 3 =15 Marks

- 6.Briefly discuss about JDBC? Write a program to establish a connection in Java using JDBC
- 7.What is the relations between classes, subclasses packages and Access specifiers. Draw a neat table showing the relations
- 8.Write a Java Program for sorting the names
- 9.Explain about Buffered Input Stream & Buffered Output Stream!
- 10.Explain about different methods for comparison of strings in string class

MCA-2

3

SPDCA 204 - SOFTWARE ENGINEERING

ASSIGNMENT- 1 5 X 3 =15 Marks

- 1.What is the difference between Software Engineering and Systems Engineering
- 2.List out various Object Oriented Testing Methods
- 3.Explain about Wireless Application Development Using J2ME?
- 4.Explain about different scheduling techniques in Software Engineering
- 5.Explain about different tasks performed in Risk Management?

ASSIGNMENT- 2 5 X 3 =15 Marks

- 6.Define GSM? Explain the features and architecture of GSM
- 7.Explain about Formal Technical Review and Informed Technical Review
- 8.Write about Project Scheduling
- 9.Describe the scenario where RAD model would be applicable and not the water fall model
- 10.Briefly discuss about different characteristics of Web Software Engineering

MCA-2

4

SPDCA 205 - DESIGN AND ANALYSIS OF ALGORITHMS

ASSIGNMENT- 1 5 X 3 =15 Marks

1. Construct the Optimal Binary Search Tree with an example
2. Discuss about implementation of Queue operations using Linked Lists representations
3. Discuss in detail about cook's theorem
4. Write an algorithm for Binary search using DAC and find out its average time complexity
5. Write an algorithm for matrix multiplication calculate space and time complexity

ASSIGNMENT- 2 5 X 3 =15 Marks

6. Discuss and prove NP-completeness and explain about solving NP-complete problem
7. Explain about Travelling Salesman problem in detail with an example
8. Sort 62, 71, 88, 93, 12, 14 by Merge sort. Write an algorithm of it
9. Give a brief outline of optimal binary search tree
10. Differentiate between greedy method and dynamic programming

MCA-2

5

SPDCA 206 -COMPUTER GRAPHICS AND MULTIMEDIA

ASSIGNMENT- 1 5 X 3 =15 Marks

1. Briefly explain about window-to- view port coordinate, Coordinate Transformation
2. Briefly explain the History of multimedia
3. What is raster graphics? Difference between raster and vector graphics?
4. Write short notes on Antialiasing and Character generation
5. Discuss about Projections in 3D-viewing

ASSIGNMENT- 2 5 X 3 =15 Marks

6. Depth-Buffer method in visible surface detection Algorithms
7. Explain General Computer Animation function
8. Write a short notes on CAD and Image Processing in Graphics Applications
9. Narrate Composite Transformations in Three-Dimensional Representation
10. Explain in detail about Bezier curves and surfaces with examples

MCA-2

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NOTE:

- 1) Last date for submission of assignments for all the courses / paper is- 15.03.2018
- 2) Non-submission of assignments as per the scheduled dates mentioned above attracts a fine of Rs. 200/- upto 26.03.2018 per each assignment of a course / paper and under any circumstances the assignments will not be accepted from 27th March, 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