

MONAD UNIVERSITY
Village & Post Kastla, Kasmabad, P.O Pilkhuwa - 245101
Tehsil Hapur (U.P), India

Course: Operating System

Assignment No: 1

Due date of submission: 10.11.2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HoD within the due date.
3. Write your Name, Programme and Enrollment No. clearly at the top of page.

Q.1

- a) Define Operating System. Explain services of Operating system. Also discuss Multitasking, Multiprogramming, Real time and embedded operating system.
- b) Discuss Producer/Consumer Problem in detail. Also give solution for Producer/Consumer Problem.

Q.2

- a) Define Process. Explain and draw a neat & clean diagram for process state. Also differentiate Long term Scheduler, Medium term Scheduler & Short term Scheduler.
- b) What do you understand by CPU Scheduling? Discuss various algorithms of CPU scheduling with example. Also discuss the concept of deadlock in detail.

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Course: Graph Theory

Assignment No: 1

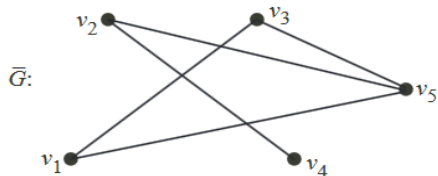
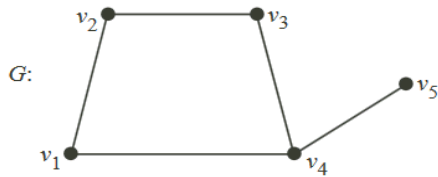
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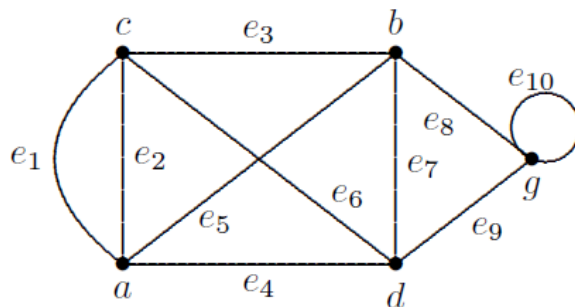
Q.1

- c) Define Graph. Also give its basic properties.
- d) Consider the given graphs and perform Union (\cup), Intersection (\cap) & Ringsum operations on these graphs.



Q.2

- a) Explain Travelling Salesman problem with suitable Example.
- b) Explain Walk, Path & Circuit. Also draw the graph for Walk, Path & Circuit for the given graph.



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Course: Computer Graphics

Assignment No: 1

Due date of submission: 10.11.2016

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Q.1

- a) Give any four applications of Computer Graphics.
- b) Explain in brief viewing transformation.

Q.2

- a) Explain in detail about Random scan and Raster scan display systems and also give their differences.
- b)
 - i. Explain in detail about Bresenham's line drawing algorithm.
 - ii. Explain in detail about Bresenham's mid point circle drawing algorithm.

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Course: Design and Analysis of Algorithms

Assignment No: 1

Due date of submission: 10.11.2016

Instructions

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Q.1

a) Discuss the dynamic programming solution to longest common subsequence (LCS) problem. Explain an algorithm to compute an LCS of two given strings.

b) Consider the sum-of-subset problem, $n=4$, $\text{Sum}=13$, and $w_1=3$, $w_2=4$, $w_3=5$ and $w_4=6$. Find a solution to the problem using backtracking. Show the state space tree leading to the solution. Also number the nodes in the tree in the order of recursion calls.

Q.2

a) Write short notes on the following:-

- i. Fast Fourier Transform
- ii. NP-completeness.

b)

- i. Explain Merge Sort Algorithm with the help of a suitable example.
- ii. Explain and write partitioning algorithm for quick Sort with the help of a suitable example.

Class: B.Tech (CS/IT)-V Sem.
Title: Object Oriented Technologies (OOT)
Assignment Number: 1
Last Dates for Submission: 10th Nov, 2016

Instructions

1. Write the responses to the assignment in your own handwriting.
2. Submit the responses to your HOD within the due date.
3. Write your Name, Programme, and Enrolment No. clearly at the top of the page.

Question 1:

a)

i) What is Object Oriented Programming? Explain features of Object Oriented Programming. Write a program in java to show data hiding.

ii) Explain why java is platform independent. Also explain how memory is managed in java.

b)

i) What are different arithmetic and logical operators in java? Write a Java program and show uses of all arithmetic operators.

ii) Write a program to explain how array of objects may be created in java.

Question 2:

a) Explain followings in context of java, with the help of examples.

(i) Class and objects

(ii) Abstraction and encapsulation

(iii) Application program and applet program

b) What is static variable and static method? Explain why main method in java is always static.

Class: B.Tech (CS/IT)-V Sem.
Title: Engineering Managerial Economics
Assignment Number: 1
Last Dates for Submission: 10th Nov, 2016

Instructions

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2. Submit the responses to your HOD within the due date.
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Ques. No.:-1

- A. Define Economics and the controversy between Father Adam Smith and Lord Alfred Marshall?
- B. Diagrammatically discuss about the meaning, importance, types and law of demand?

Ques. No.:-2

- C. With figure define elasticity of demand, its type and degrees? Numerically support your answer?
- D. Diagrammatically discuss about an indifference curve analysis?