(PGDIT01)

ASSIGNMENT - 1

P.G. DIPLOMA DEGREE EXAMINATION, MAY - 2019

INFORMATION TECHNOLOGY

Basics of IT

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

Q1) Explain about five representative business models of the digital age and three types of business pressures.

Q2) Explain about evaluation of information systems with examples.

Q3) What is CPU? Write about different components of CPU.

Q4) Discuss about different secondary storage devices and their working principle.

Q5) Explain about different programming languages and their features.

(PGDIT01)

ASSIGNMENT - 1

P.G. DIPLOMA DEGREE EXAMINATION, MAY - 2019

INFORMATION TECHNOLOGY

Basics of IT

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Describe the major types of application software and differentiate system software and application software.

Q2) Discuss traditional data file organization and its problems.

Q3) Describe the component of a telecommunications system and major types of network services.

Q4) Define the term intranet and discuss how intranets are used by businesses.

Q5) Discuss various ways to connect internet and also describe various services of internet.

(PGDIT02)

ASSIGNMENT - 1

P.G. DIPLOMA DEGREE EXAMINATION, MAY - 2019

INFORMATION TECHNOLOGY

Data Structure with C

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Discuss about classification of data structures in detail.

Q2) Describe the characteristics of algorithm and also write about linear search algorithm.

Q3) Explain about fixed length storage and variable length storage of strings with suitable example.

Q4) How to represents records in computer memory? Illustrate with suitable example.

Q5) What is circular linked list? Discuss various operation on circular lined lists.

(PGDIT02)

ASSIGNMENT - 2

P.G. DIPLOMA DEGREE EXAMINATION, MAY - 2019

INFORMATION TECHNOLOGY

Data Structure with C

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Write a pseudo-code for PUSH and POP operations of stack and also explain various applications of stack.

Q2) Briefly explain about AVL trees, B+ -trees and red-back trees.

Q3) What is binary search tree? Explain about searching and insertion operation in binary search trees.

Q4) Sort the following numbers using

a) Selection sort.
b) Shell sort :

42, 29, 74, 11, 65, 58

Q5) What is hashing? Explain various Hash collision resolution techniques with examples.

(PGDIT03)

ASSIGNMENT - 1

P.G. DIPLOMA DEGREE EXAMINATION, MAY - 2019

INFORMATION TECHNOLOGY

DBMS (Data Base Management System)

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Discuss components of information system and also different types of information system.

Q2) Explain about indexed sequential and direct access file organization with neat sketch.

Q3) Write about pointer types and location methods with suitable example.

Q4) Explain about network and relational data models with proper example.

Q5) State and explain about different normal forms with appropriate examples.

(PGDIT03)

ASSIGNMENT - 2

P.G. DIPLOMA DEGREE EXAMINATION, MAY - 2019

INFORMATION TECHNOLOGY

DBMS (Data Base Management System)

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Write about various symbols used database action diagrams.

Q2) What is information management system (IMS)? Write about IMS database description.

Q3) Explain about data manipulation language of IDMS.

Q4) Discuss about relational algebra operations and relational calculus commands.

Q5) Explain about concurrency control mechanism in detail.

(PGDIT04)

ASSIGNMENT - 1

P.G. DIPLOMA DEGREE EXAMINATION, MAY - 2019

INFORMATION TECHNOLOGY

Computer Networks

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) What is the difference between guided and unguided transmission media? Write briefly about twisted pair.

Q2) What is OSI model? Draw Diagram and Explain Physical, Data link and Network layer with its functions.

Q3) Explain about features of LAN, MAN, WAN, Internet.

Q4) Explain CRC technique with example.

Q5) Explain different types of Switching methods with examples.

(PGDIT04)

ASSIGNMENT -2

P.G. DIPLOMA DEGREE EXAMINATION, MAY - 2019

INFORMATION TECHNOLOGY

Computer Networks

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) What is routing? How flooding can be used for routing? Give example.

Q2) Explain the one bit sliding window protocol and go back n protocol. Write down the drawback of both the protocols.

Q3) Explain how congestion control is achieved in TCP?

Q4) Draw IP headed and explain each field of the header.

Q5) Explain message authentication operation using RSA algorithm.

(PGDIT05)

ASSIGNMENT - 1

P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2019

INFORMATION TECHNOLOGY

Computer Organization

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

Q1) Discuss evaluation of digital computers.

Q2) Explain the components of expanded structure of IAS computer.

Q3) Explain about the Evolution of the Intel x86 Architecture.

Q4) What is PCI? Explain about PCI configuration.

Q5) What is magnetic disk? Write about disk layout and disk data layout methods.

(PGDIT05)

ASSIGNMENT - 2

P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2019

INFORMATION TECHNOLOGY

Computer Organization

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

Q1) Discuss about different RAID levels and compare them.

Q2) Explain about characteristics of two's complement representation and arithmetic.

Q3) Discuss about floating point division and multiplication with suitable example.

Q4) Design a hardwired control unit for CPU. Why hardwired CU are suitable for RISC.

Q5) Write about instruction pipeline with timing diagram.

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(PGDIT06)

ASSIGNMENT - 1

P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2019

INFORMATION TECHNOLOGY

Operating Systems

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

Q1) Explain the various types of computer systems.

Q2) a) What is thread? Describe different thread models.

b) Explain the process creation and termination process on process.

Q3) What is scheduling? Discuss about different scheduling algorithms.

Q4) Discuss the critical section problem. State the basic requirements of critical section problem solution.

Q5) Give a detailed description about deadlocks and its characterization?

(PGDIT06)

ASSIGNMENT - 2

P.G. DIPLOMA DEGREE EXAMINATION, MAY – 2019

INFORMATION TECHNOLOGY

Operating Systems

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

Q1) What is meant by RAID levels? Which level is used for what purpose?

Q2) Explain the basic concepts of segmentation.

Q3) Consider the following page reference string : 2, 3, 4, 2, 1, 5, 6, 4, 1, 2, 3, 7, 6, 3, 2, 1 Calculate the number of page faults would occur for the following page replacement algorithm with frame size of 4 and 5.

Q4) Explain in detail about various ways of free space management.

Q5) Explain about various security issues in operating systems.

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