PGDIT01

ASSIGNMENT-1

P.G. DIPLOMA DEGREE EXAMINATION, JUNE/JULY - 2020

INFORMATION TECHNOLOGY

Basics of IT

Maximum : 30 MARKS

Answer ALL Questions

Q1) Discuss about business pressures and organizational pressures.

Q2) Explain about IT support at different organizational levels.

Q3) What is computer memory? Write about different computer memory devices and its functionality.

Q4) Describe about working of various output devices with neat sketches.

Q5) Discuss evaluation of programming languages and their features.

PGDIT01

ASSIGNMENT-2

P.G. DIPLOMA DEGREE EXAMINATION, JUNE/JULY - 2020

INFORMATION TECHNOLOGY

Basics of IT

Maximum : 30 MARKS

Answer ALL Questions

Q1) Write in detail about system software and application software.

Q2) Explain about logical data models and data warehouses.

Q3) Discuss about network processing strategies.

Q4) What is internet? What are the services provided by the internet?

Q5) Discuss the features of intranet and extranets.

PGDIT02

ASSIGNMENT-1

P.G. DIPLOMA DEGREE EXAMINATION, JUNE/JULY - 2020

INFORMATION TECHNOLOGY

Data Structure with C

Maximum : 30 MARKS

Answer ALL Questions

Q1) Write about different types of control structures used in algorithm notation and also give each of them by flow diagram.

Q2) Explain about Abstract data model and various data structure operations.

Q3) Write about word processing and string processing operations.

Q4) What is record? Discuss about record storage structure in memory with suitable example.

Q5) What is Stack? List out different operation of it and also write specify algorithm for stack operation.

PGDIT02

ASSIGNMENT-2

P.G. DIPLOMA DEGREE EXAMINATION, JUNE/JULY - 2020

INFORMATION TECHNOLOGY

Data Structure with C

Maximum : 30 MARKS

Answer ALL Questions

Q1) What is single linked list? Discuss various operations on single linked list.

Q2) What is binary search tree? Generate a binary search tree for following numbers and perform in-order, pre-order and post-order traversals: 50, 40, 80, 20, 0, 30, 10, 90, 60, 70.

Q3) What is B – tree? Describe insertion deletion and searching operations on B - trees.

Q4) Sort the following elements using selection sort algorithm and give its pseudo code: 42, 29, 74, 11, 65, 58.

Q5) What is hashing? What are the qualities of a good hash function? Explain any two hash functions in detail.

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PGDIT03

ASSIGNMENT-1

P.G. DIPLOMA DEGREE EXAMINATION,

JUNE/JULY - 2020

INFORMATION TECHNOLOGY

DBMS (Data Base Management System)

Maximum : 30 MARKS
Answer ALL Questions

Q1) State and explain various classifications of information systems and also give the advantages of database systems.

Q2) Discuss different file organization approaches indetail.

Q3) Explain about the following data structures :

a) Inverted list.

b) Ring data structure.

c) Multi-list data structures.

Q4) Write about hierarchical and network data models with proper example.

Q5) What is normalization? What is need of normalization? Describe different types of normal forms.

PGDIT03

ASSIGNMENT-2

P.G. DIPLOMA DEGREE EXAMINATION,

JUNE/JULY - 2020

INFORMATION TECHNOLOGY

DBMS (Data Base Management System)

Maximum : 30 MARKS

Answer ALL Questions

Q1) Discuss different database designing steps with example.

Q2) What is meant by PC-FOCUS? Write note on PC-FOCUS manipulation and PC-FOCUS description.

Q3) Write about different data manipulation language commands of IDMS with syntax.

Q4) What is locking? Discuss different types of locking mechanisms in DBMS?

Q5) Write about different classifications of relational database commands.

PGDIT04

ASSIGNMENT-1

P.G. DIPLOMA DEGREE EXAMINATION,

JUNE/JULY- 2020

INFORMATION TECHNOLOGY

Computer Networks

Maximum : 30 MARKS

Answer ALL Questions

Q1) What is multiplexing? Explain about wave division and time division multiplexing with neat diagrams.

Q2) Discuss about various network components.

Q3) Explain about the features of Local Area Network technologies.

Q4) Explain ALOHA system. How slotted ALOHA works? Differentiate it with pure ALOHA.

Q5) Explain about circuit, packet switching and also give the switching fabric.

PGDIT04

ASSIGNMENT-2

P.G. DIPLOMA DEGREE EXAMINATION,

JUNE/JULY- 2020

INFORMATION TECHNOLOGY

Computer Networks

Maximum : 30 MARKS

Answer ALL Questions

Q1) Explain sliding window protocol for sender and receiver.

Q2) What is IP address? What is Subnet? Explain different IP address Classes.

Q3) Explain about Hierarchical and Multi Cast Routing.

Q4) a) What is DNS? How resource records are maintained in DNS?

b) Give architectural overview of WWW.

Q5) Explain about web security and e-mail security in detail.

PGDIT05

ASSIGNMENT-1

P.G. DIPLOMA DEGREE EXAMINATION,

JUNE/JULY - 2020

INFORMATION TECHNOLOGY

Computer Organisation

Maximum : 30 MARKS

Answer ALL Questions

Q1) Draw the functional diagram of a computer and explain each block.

Q2) Write about evaluation of Intel x86 architecture and ARM.

Q3) State and explain Instruction Cycle state diagram with Interrupts and without interrupts.

Q4) Write about basic bus structure and different bus data transfer types.

Q5) How is redundancy achieved in a RAID system? Describe different RAID levels.

PGDIT05

ASSIGNMENT-2

P.G. DIPLOMA DEGREE EXAMINATION,

JUNE/JULY - 2020

INFORMATION TECHNOLOGY

Computer Organisation

Maximum : 30 MARKS

Answer ALL Questions

Q1) Explain about mechanism of optical memory. Describe various optical memory devices.

Q2) Draw the block diagram of 4-bit arithmetic circuit and explain the functionality and show in tabular form.

Q3) Draw and explain the division of floating point numbers.

Q4) Explain about register organization.

Q5) Discuss organization of ARM processor with flowchart.

PGDIT06

ASSIGNMENT-1

P.G. DIPLOMA DEGREE EXAMINATION,

JUNE/JULY - 2020

INFORMATION TECHNOLOGY

Operating Systems

Maximum : 30 MARKS

Answer ALL Questions

Q1) What is an operating system? Discuss different services provided by operating systems.

Q2) Compose FCFS, SJF and round robin algorithms by computing average waiting time. There are 5 processes with CPU burst time as 10, 5, 17, 25, 6 and arrival times are 0, 1, 3, 2, 7 units. Assume time quantum for round robin scheduling as 5.

Q3) Explain Dining Philosopher problem in process synchronization.

Q4) What is paging? Explain hardware support for paging. How it is different from segmentation.

Q5) What is meant by Virtual memory? Give some major benefits which are make applicable.

PGDIT06

ASSIGNMENT-2

P.G. DIPLOMA DEGREE EXAMINATION,

JUNE/JULY - 2020

INFORMATION TECHNOLOGY

Operating Systems

Maximum : 30 MARKS

Answer ALL Questions

Q1) What is file? Explain different file accessing methods.

Q2) Write notes about disk management and swap-space management.

Q3) Write about different disk scheduling techniques.

Q4) Explain about data encryption and decryption mechanisms.

Q5) What are the program and system threats? How will the system be protected against these threats?