

(PGDIT 01)

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P.G. DIPLOMA DEGREE EXAMINATION, DEC. – 2016

INFORMATION TECHNOLOGY

Basics of Information Technology

Time : 3 Hours

Maximum Marks: 70

Answer any 5 questions
All questions carry equal marks

- Q1)** Explain various types of input devices.
- Q2)** Explain different types of Operating system.
- Q3)** Explain different data models with suitable examples.
- Q4)** State the web searching tools.
- Q5)** Describe the telecommunication system components.
- Q6)** Write about different network topologies.
- Q7)** Write a few words about: TCP, IP and FTP.
- Q8)** Distinguish between data and information.
- Q9)** What is the structure of an organization ? Explain how IT supports different levels of organizations.
- Q10)** Write about various programming languages.

(PGDIT 02)

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P.G. DIPLOMA DEGREE EXAMINATION, DEC. – 2016

INFORMATION TECHNOLOGY

Data structures with C

Time : 3 Hours

Maximum Marks: 70

Answer any 5 questions.

All questions carry equal marks.

Q1) What is a Queue? Explain its types in detail.

Q2) Explain DLL and its operations.

Q3) Explain Binary Tree and its operations.

Q4) Explain Towers of Honai using Recursion.

Q5) Explain Binary Search.

Q6) Explain Merge Sort with the following i/p 160,151,201,303,75,100,199,502.

Q7) Explain 3 tree traversal methods with the help of a suitable example.

Q8) Explain bubble sort algorithm with an example and also state its time complexity.

Q9) What is DQUEUE? Explain all operation performed on it.

Q10) State the advantages and disadvantages of Linked lists over arrays.



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INFORMATION TECHNOLOGY

(DBMS) Database Management System

Time : 3 Hours

Maximum Marks: 70

Answer any 5 questions.

All questions carry equal marks.

Q1) What is DBMS? State and explain its components with a neat diagram.

Q2) Explain different data models in detail.

Q3) Explain ER mode in detail.

Q4) Draw and ER diagram for Library management System .

Q5) Explain in detail Relational calculus with examples.

Q6) Explain SET operators with suitable examples.

Q7) Explain CREATE command in detail and state clear examples.

Q8) Explain various locking protocols available.

Q9) What is normalization? Explain 3NF, 4NF and 5NF.

Q10) Explain network models in detail.



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PG DIPLOMA DEGREE EXAMINATION, DEC. – 2016

INFORMATION TECHNOLOGY

(Paper-IV) : Computer Networks

Time : 3 Hours

Maximum Marks: 70

Answer any 5 questions.

All questions carry equal marks.

- Q1)** What is computer networks and explain in detail AN, MAN, and WAN Data Flow.
- Q2)** Explain in detail the Different Transmission Medias with example.
- Q3)** Define switches. Specify different Switching Techniques with neat diagram.
- Q4)** Explain in detail Multiple Access protocols.
- Q5)** Explain in detail the TCP/ IP protocol suit and summarize the TCP /IP protocol and OSI model.
- Q6)** What is routing? Explain “Static Routing”, “ Dynamic Routing” with common fields in a routing table.
- Q7)** Write about the naming and addressing system in detail.
- Q8)** Write about the Multicast Routing Protocols in detail.
- Q9)** Define binary arithmetic, IP address and explain in detail the binary arithmetic and how to calculate the IP addresses.
- Q10)** Explain the Data Encryption standard and Advanced Encryption standard .



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INFORMATION TECHNOLOGY

(Paper-V) Computer Organisation

Time : 3 Hours

Maximum Marks: 70

Answer any 5 questions.

All questions carry equal marks.

- Q1)** Explain the functions of conditions code.
- Q2)** List out and explain the main structural components of a computer.
- Q3)** Discuss about the memory segmentation in a CPU.
- Q4)** Explain about various addressing modes in detail.
- Q5)** Discuss about carry, save, addition of commands.
- Q6)** How are History bits used for branch prediction?
- Q7)** Explain about different external memory devices.
- Q8)** Explain about the components of CPU.
- Q9)** List and briefly define two approaches to deal with multiple interrupts.
- Q10)** How is redundancy achieved in a RAID system?



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PG.DIPLOMA DEGREE EXAMINATION, DEC. – 2016

INFORMATION TECHNOLOGY

Operating system

Time : 3 Hours

Maximum Marks: 70

Answer any 5 questions.

All questions carry equal marks.

Q1) Write a short note on different types of operating Systems?

Q2) Explain process scheduling algorithms.

Q3) Explain how inter-process communication takes place.

Q4) Explain Dining philosophers problem. State its solution using semaphores.

Q5) What is Demand paging? Explain.

Q6) Explain different types of disk space allocation methods in detail.

Q7) Explain Bankers algorithm.

Q8) Explain FIFO and LRU page replacement algorithms.

Q9) Define deadlock. How can a deadlock be prevented from occurring?

Q10) Discuss about program related threats.

