Paper - I : Basics of Information Technology

Time: 3 Hours Maximum Marks: 75

Answer any Five questions.			
	All questions carry equal marks.		
1)	Explain the applications of IT in business.		
2)	Explain the process of development of Hardwork.		
<i>3</i>)	Distinguish between hardware and software.		
4)	Distinguish between data and information.		
5)	Describe the features of high quality data.		
6)	Describe different kinds of operating system.		
7)	What are the components of telecommunications system?		
8)	State the tools used to search web.		
9)	Distinguish between internet, intranet and extranet.		
10)	Elucidate the uses of internet in business.		

Paper – II: Data Structure with C

Time: 3 Hours Maximum Marks: 75

Answer any Five questions.

 $(5 \times 15 = 75)$

All questions carry equal marks.

- 1) What is data structure? Explain Linear & nonlinear data structures in detail.
- 2) Write a C program for binary search using arrays.
- 3) Discuss about string processing in detail with example.
- 4) What is a Double Linked Lists? Explain its operations using C program.
- 5) What is a Queue? Explain priority queue, Deque & Circular queue in detail.
- 6) What is a Stack? Explain towers of Hanoi and Recursion in detail.
- 7) What is a binary tree? Explain its operations in detail.
- 8) Explain binary tree traversals in detail with neat diagram.
- 9) Write a C program for quick sort for the following elements

20 90 15 5 75 4 98

10) Write and explain about linear search in detail.



Paper - III : DBMS (Data Base Management System)

Time: 3 Hours Maximum Marks: 75

	Answer any Five questions All questions carry equal marks	$(5 \times 15 = 75)$
1)	Explain the architecture of DBMS.	
2)	What is data structure? Explain in detail.	
<i>3</i>)	Explain about data models in detail.	
<i>4</i>)	Discuss about Database Administrator.	
5)	Explain Hierarchical Database Management System in detail.	
6)	Describe Entity relationship diagram with an example.	
7)	Explain the implementation design of database.	
8)	Discuss about PL/SQL in detail.	
9)	Explain about RDBMS in detail with example.	
<i>10</i>)	What is Normal Form? Explain different normal forms.	
	A A A	

Paper - IV : Computer Networks

Time: 3 Hours Maximum Marks: 75

$(5 \times 15 = 75)$ Answer any Five questions. All questions carry equal marks. *1*) What is Data Communication & Computer Networks? Explain LAN, MAN and WAN in detail. Explain Internet model with neat diagram in detail. *2*) *3*) Discuss about Multiple Access protocols in detail. What is transmission media? Explain guided & unguided media with neat diagrams. *4*) What is switching? Explain different switching techniques with neat diagram in detail. 5) **6**) Discuss about Naming & Addressing in detail. *7*) What is routing? Explain about routing table and routing protocols. 8) Discuss about Services and applications of routing. What is Oryptography? Explain symmetric key and Asymmetric key Cryptography in detail. **9**)

10) Discuss about Binary arithmetic and IP Address calculation.

Paper – V : Computer Organisation

Time: 3 Hours Maximum Marks: 75

Answer any Five questions.

	Answer any Five questions. All questions carry equal marks.	$(5 \times 15 = 75)$
1)	Explain the evolution of computers.	
2)	What are the components of computers?	
3)	State the functions of computers.	
4)	Describe the structure of CPU.	
5)	Give an account of personal computer.	
6)	Bring out the functional compact disk.	
7)	Elucidate the basic elements of floating point addition and subtraction.	
8)	Enumerate the ways in which an instruction pipeline can deal with conditional branch	instruction.
9)	Explain the function of condition codes.	
<i>10</i>)	State the advantage of use of multiple bus architecture compared to a single bus archi	tecture.



Paper - VI : Operating Systems

Time: 3 Hours Maximum Marks: 75

Answer any Five questions. $(5 \times 15 = 75)$ All questions carry equal marks. *1*) Explain the structure of operating system in detail. *2*) Explain different scheduling algorithms in detail. *3*) Discuss about the memory management with neat illustration. **4**) Explain the process of message passing system. Discuss about the file systems management in detail. 5) **6**) What is Paging? Explain about the Paging concept with neat illustration. *7*) Explain various Page replacement algorithms in detail. 8) Discuss about the free space management in detail. **9**) Explain RAID structure in detail. 10) Describe the security threats and security issues in operating system.

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