Code No: R19ES1212 **R19** SET - 1

I B. Tech II Semester Regular Examinations, December - 2020
FUNDAMENTALS OF COMPUTERS
(Electrical and Electronics Engineering)

Time: 3 hours Max. Marks: 75

Answer any five Questions one Question from Each Unit
All Questions Carry Equal Marks

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1.	a)	Identify the differences between primary memory and secondary memory.	(8M)
	b)	Explain core functions of a computer system.	(7M)
		Or	
2.	a)	Demonstrate on memory-mapped input/output.	(8M)
	b)	Write a short note on following input devices: (i) Light Pen (ii) Joystick.	(7M)
3.	a)	Define an algorithm. Give an outline on the characteristics of algorithm.	(8M)
	b)	Compare and contrast assembler, compiler and interpreter.	(7M)
		Or	
4.	a)	Given a set of n students examination marks (in the range of 0 to 100) make a count of the number of students passed the examination. A pass is awarded for all marks of 50 and above. Write the algorithm for the above problem.	(8M)
	b)	With the help of syntax and flowchart explain "for loop".	(7M)
5.		Draw the OSI network architecture and explain the functionalities of each layer in detail.	(15M)
		Or	
6.	a)	What is a process? Explain various fields of PCB with a neat sketch.	(8M)
	b)	Explain the features of Microsoft Windows Operating System over Unix Operating System.	(7M)
7.	a)	Briefly describe the three-schema architecture of database systems.	(8M)
	b)	Write a brief note on investigation phase in SDLC.	(7M)
		Or	
8.	a)	Differentiate between procedural and non-procedural data manipulation language.	(8M)
	b)	Elaborate the various steps involved in analysis phase of SDLC.	(7M)
9.	a)	Explain some threats to security in bluetooth technology. How are they overcome?	(8M)
	b)	Discuss in detail the components of grid computing and its applications.	(7M)
		Or	
10.	a)	Enumerate on the concept of cloud technology.	(8M)
	b)	How the wireless network uses radio waves for two way communication?	(7M)
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Code No: R19ES1212 **R19** SET - 2

I B. Tech II Semester Regular Examinations, December – 2020
FUNDAMENTALS OF COMPUTERS
(Electrical and Electronics Engineering)

Time: 3 hours Max. Marks: 75

Answer any five Questions one Question from Each Unit
All Questions Carry Equal Marks

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1.	a)	Illustrate on factors affecting computer performance.	(8M)
	b)	Enumerate the concept of direct memory access. Does it have any image on processor performance?	(7M)
		Or	
2.	a)	What is the difference between system software and application software?	(8M)
	b)	Illustrate on impact printers and non-impact printers with examples.	(7M)
3.	a)	Elaborate on structured programming concepts.	(8M)
	b)	Summarize on machine level language and its advantages and disadvantages.	(7M)
		Or	
4.	a)	Write an algorithm that accepts a positive integer and reverse the order of its digits. Explain it with a suitable example.	(8M)
	b)	Distinguish between while and do-while loop.	(7M)
5.	a)	Explain the steps involved in process creation and process termination.	(8M)
	b)	Discuss the features of Microsoft DOS Operating System and Linux Operating System.	(7M)
		Or	
6.		What do you mean by network topology? Explain five types of network topologies with its advantages & disadvantages.	(15M)
7.	a)	Describe about various types of testing. Give the role of testing in software development.	(8M)
	b)	Which type of statements is used in SQL to create table, insert values in to table and retrieve data from a table in the database?	(7M)
		Or	
8.	a)	Discuss in detail disadvantages of file-oriented approach.	(8M)
	b)	What are the various techniques used for describing the system design in SDLC.	(7M)
9.	a)	Compare and contrast distributed computing and parallel computing.	(8M)
	b)	Write a brief note on limitations of wireless networks.	(7M)
		Or	
10.	a)	What is Pico net? How is it differ from LAN, MAN and WAN.	(8M)
	b)	Elaborate on the concept of utility computing.	(7M)
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Code No: R19ES1212 **R19** SET - 3

I B. Tech II Semester Regular Examinations, December – 2020
FUNDAMENTALS OF COMPUTERS
(Electrical and Electronics Engineering)

Time: 3 hours Max. Marks: 75

Answer any five Questions one Question from Each Unit
All Questions Carry Equal Marks

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1.	a)	Draw the block diagram of a computer and explain the function of each component of a computer.	(8M)
	b)	Why computer is known as data processing system? Justify.	(7M)
		Or	
2.	a)	Illustrate on the three components of central processing unit.	(8M)
	b)	Write a short note on peripheral devices of a computer.	(7M)
3.	a)	Design an algorithm to print the Fibonacci sequence of any given number.	(8M)
	b)	What do you mean by assembly language? Explain its pros and cons.	(7M)
		Or	
4.	a)	What is a Pseudo code? How does it assist in writing efficiency programming?	(8M)
	b)	Draw a flow chart for finding the largest number among the three given numbers.	(7M)
5.	a)	Classify computer networks and explain them in brief.	(8M)
	b)	Summarize on the following types of operating systems: (i) Single-user multitasking operating System (ii) Multiprocessing operating system.	(7M)
		Or	
6.	a)	Distinguish between Pre-emptive and Non-preemptive scheduling. Explain each type with an example.	(8M)
	b)	Write a brief note on (i) Network interface card (ii) Gateway	(7M)
7.	a)	Explain different categories of database users.	(8M)
	b)	Compare and contrast different modes in databases.	(7M)
		Or	
8.		Discuss in detail different stages of software development life cycle with a neat diagram.	(15M)
9.	a)	Justify your answer: How is grid computing is better than traditional computing?	(8M)
	b)	Identify the differences between bluetooth and wireless networks.	(7M)
		Or	
10.	a)	List out the main features of cloud computing systems and explain it.	(8M)
	b)	Compare cloud computing with peer-to-peer computing.	(7M)
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Code No: R19ES1212 **R19** SET - 4

I B. Tech II Semester Regular Examinations, December – 2020
FUNDAMENTALS OF COMPUTERS
(Electrical and Electronics Engineering**)**

Time: 3 hours Max. Marks: 75

Answer any five Questions one Question from Each Unit
All Questions Carry Equal Marks

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1.	a)	Explain salient features of a computer system.	(8M)
	b)	Describe the factors to be considered while closing I/O devices.	(7M)
		Or	
2.	a)	What is cache memory? Mention its advantages and disadvantages.	(8M)
	b)	Compare and contrast hardware and software. List out some of the examples for both hardware and software.	(7M)
3.	a)	Design an algorithm for computing the factorial of a given number.	(8M)
	b)	Write a brief note on advantages & disadvantages of structured programming approach.	(7M)
		Or	
4.	a)	Illustrate on high level, low level languages and assembly language.	(8M)
	b)	Explain basic algorithmic constructs used for writing a pseudo code.	(7M)
5.	a)	Which device will you prefer to form a network-hub or a switch? Justify your answer.	(8M)
	b)	Summarize on the following types of operating systems: (i) Multi-user multitasking operating system. (ii) Real-time operating system.	(7M)
		Or	
6.	a)	Explain the states of a process with the help of a diagram.	(8M)
	b)	Identify the differences between LAN, WAN and MAN.	(7M)
7.		What do you mean by data model? Elaborate on hierarchal, network, relational and object-oriented data models with suitable examples.	(15M)
		Or	
8.	a)	Describe the role of documentation in Software Development.	(8M)
	b)	How the database-oriented approach is better than the file-oriented approach?	(7M)
9.	a)	Describe about various types of wireless networks.	(8M)
	b)	Explain the services provided by cloud computing.	(7M)
		Or	
10.	a)	Compare and contrast peer-peer networking and client-server networking.	(8M)
	b)	How interference can be avoided in bluetooth devices?	(7M)
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