



SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES

(Autonomous)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

QUESTION BANK

23ESC232 – DIGITAL LOGIC AND COMPUTER ORGANIZATION

Question No.	Questions	PO Attainment
UNIT – 1:-DATA REPRESENTATION		
PART A (2 Marks)		
1	Types of numbering system example?	PO1
2	Definition of one's complement with example?	PO1
3	What is meant by logic gate and how many types are ?	PO1
4	Definition of 4' complement with example?	PO1
5	Definition of half adder and full adder?	PO1
6	Definition of 9's complement with example?	PO1
7	Definition of Half subtractor and full subtractor?	PO1
8	What is mean by K mapping and it is developed by?	PO1
9	Why do we use base two for binary numbers?	PO1
10	Definition of 2's complement with example?	PO2
PART-B (10 Marks)		
1	Numbering conversion problems	PO2
2	explain any example for K-Mapping problem	PO2
3	Once and twos compliment example for subtraction of 1's complement	PO2
4	Convert the hexadecimal (1A31A31A3) number to binary ,octal and decimal numbers	PO2
5	Explain about Half adder and full adder	PO1
6	Explain about multiplexer and demultiplexer	PO2
7	Explain about logic gates types with diagrams and truth tables	PO2
8	Explain all types of numbering systems briefly	PO2
9	Explain about half subtractor and full subtractor	PO2
10	Once and twos compliment example for subtraction of 2's complement	PO2

Question No.	Questions	PO Attainment
UNIT – 2:-DIGITAL LOGIC CIRCUITS		
PART A (2 Marks)		
1	What is mean by flip flops and types of flip flops?	PO1
2	What is mean by binary counter?	PO1
3	How many types of computers are there?	PO1
4	Definition of sequential circuit?	PO1
5	What is functional units why it is necessary?	PO1
6	Fundamental components of an computer?	PO1
7	Why notebook computers are very much famous?	PO1
8	Elaborate ASCII AND EBCDIC	PO1
9	Types of units present in a computer?	
10	What happened in 4 th generation of an computer?	PO1



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PART-B (10 Marks)		
1	Explain about flip flops	PO3
2	Explain about counters and sequential circuit's s	PO2
3	Explain about shift registers	PO2
4	Explain briefly about types of computers with Characteristics	PO2
5	Explain about functional units of a computer	PO2
6	Explain about computer generations	PO2
7	Explain about von Neuman architecture	PO2
8	Difference between multi-processor and multi-computer	PO2
9	Explain about bus structure	PO2
10	Explain about basic concepts of a computer with neat diagram	PO2

Question No.	Questions	PO Attainment
UNIT – 3:- COMPUTER ARITHMETIC		
PART A (2 Marks)		
1	What are arithmetic operators?	PO1
2	What is mean by bus structure?	PO1
3	Define hard wired and Multi programmed control?	PO1
4	What is the process happening in Control unit?	PO1
5	What is multiprocessor?	PO1
6	Define fast multiplication?	PO1
7	Explain about relational operators?	PO1
8	What is mean by integer division?	PO4
9	Define multi computer?	PO1
10	What is the purpose of arithmetic and logic unit?	PO4



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PART-B (10 Marks)		
1	Perform Binary addition and Subtraction of signed numbers	PO2
2	Explain about multi bus organization	PO2
3	Explain about types of computer and functional unit	PO2
4	Explain about hard wired and multi programmed control	PO2
5	Explain Multiplication of positive numbers example	PO2
6	Explain about signed operand multiplication	PO2
7	Explain fast multiplication with example	PO2
8	Explain about floating point numbers and operation with Example	PO2
9	Explain about design of fast order	PO2
10	Write algorithm for booths with 1,2,3 with flow charts	PO2

Question No.	Questions	PO Attainment
UNIT – 4:-THE MEMORY ORGANIZATION		
PART A (2 Marks)		
1	What is memory?	PO1
2	Types of hard Dis?	PO1
3	What is mean by semiconductor ram memory?	PO1
4	Explain about Ram?	PO1
5	How the memory management system works?	PO1
6	How the memory is organized in a computer?	PO1
7	Explain about primary and secondary memory?	PO1
8	What is mean by Rom?	PO1
9	What is mean by PCI express flash?	PO1
10	How many types of memories and what are they?	PO1
PART-B (10 Marks)		
1	Expense about Ram and Rom organization	PO2
2	Explain about memory and its types with real time example	PO2
3	Explain about main memory and cache memory with example	PO2
4	Explain about virtual memory and auxiliary memory with diagram and example	PO2
5	Explain about memory management requirements	PO2
6	Explain about solid state drivers with example	PO2
7	Explain about cache memory in computer organization	PO2



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8	Explain about secondary memory and its uses	Po1
9	Explain about PCI express flash	Po1
10	Explain about hybrid T Ram Flash Storage	Po1

		PO2
Question No.	Questions	PO Attainment
UNIT – 5:-INPUT OUTPUT ORGANIZATION		
PART A (2 Marks)		
1	What are the input devices?	PO1
2	What are the output devices?	PO1
3	Types of USB?	PO1
4	How is direct memory access works?	PO1
5	What is the mission understandable language?	PO2
6	What is the purpose of compiler or interpreter in a computer?	PO2
7	Define interface circuits?	PO2
8	What are the the input devices and which device converts the human understanding language into machine language?	PO2
9	Which are the latest input and output devices?	PO1
10	Which converts the machine language into human understandable language?	PO2
PART-B (10 Marks)		
1	Explain about input devices with example and diagram	PO2
2	Extreme briefly about output devices with diagram and example	PO2
3	Explain about accessing input and output devices	PO1
4	Explain About interrupts processor with examples	PO1
5	Explain about PCI Express	PO1
6	Explain about types of USB and its users	PO1
7	Explain about direct memory access	PO1
8	Explain about organization of input and output devices with diagram	PO2
9	Explain about USB-A, USB-B and USB-C	PO2
10	Explain about micro-USB and mini-USB	PO1