

5 Questions – Apply/Analysis (should be the level of 2-3 marks)

Question Type	Subjective / Analysis	
Question number	1	
Question	Draw pictorial representation of all micro operations.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Easy	Understand
Tags		
Subject	COA	
Topic	Micro Operations	
Sub Topic	Circuits for Micro Operation	

Question Type	Subjective / Analysis	
Question number	2	
Question	What are the Data Types used in COA?	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Understand
Tags		
Subject	COA	
Topic	Data Types	
Sub Topic	Data Representation	

Question Type	Subjective / Analysis	
Question number	3	
Question	What are the Different Binary Codes?	

Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Analyse
Tags	COA	
Subject	Data Types	
Topic	Binary Codes	
Sub Topic		

Question Type	Subjective / Analysis	
Question number	4	
Question	Write Down the 1's and 2's Complement of $(64)_{10}$.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Analyse
Tags		
Subject	COA	
Topic	Complements	
Sub Topic	Data Representation	

Question Type	Subjective / Analysis	
Question number	5	
Question	Define Bus Structure and its Types?	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Easy	Remember

Tags	
Subject	COA
Topic	BUS Communication
Sub Topic	Register Transfer Bus

5 Questions (10 marks – Analysis level)

Question Type	Subjective / Analysis	
Question number	1	
Question	Define Number System? With the given examples Convert the Given Number to Corresponding Radix? i) $(54)_{10}$ to Binary ii) $(1011.101)_2$ to Decimal iii) $(451)_{10}$ to Octal	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Easy	Apply
Tags		
Subject	COA	
Topic	Number System	
Sub Topic	Data Representation	

Question Type	Subjective / Analysis	
Question number	2	
Question	A) Define the concept of Registers. B) Describe the different types Micro Operations. C) Provide an example for Micro Operations.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Analyse
Tags		
Subject	COA	
Topic	Register	

Sub Topic	Micro Operations
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Question Type	Subjective / Analysis	
Question number	3	
Question	A) Describe in detail about Error Detection Code. B) Provide an example for Performing the Error Detection Code.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Apply
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Error Detection Code	

Question Type	Subjective / Analysis	
Question number	4	
Question	A) Describe the process of Register Transfer Bus. B) Explain in detail about Register Transfer Language. C) Convert the given Binary $(101102)_2$ to Decimal Form	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Hard	Apply
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Register Transfer Bus	

Question Type	Subjective / Analysis	
Question number	5	

Question	A) Describe in detail about Parity Code. B) Explain in detail about Hamming Codes.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Hard	Apply
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Error Detection Codes	

10 Questions (5 marks – Comprehension / Application level)

Question Type	Subjective / Analysis	
Question number	1	
Question	Describe the arithmetic Micro Operations and Logic Micro Operations in detail.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Easy	Analyse
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Arithmetic Micro Operations	

Question Type	Subjective / Analysis
Question number	2
Question	Explain in detail about different types of Error Detection Codes.
Solution	

Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Analyse
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Error Detection Codes	

Question Type	Subjective / Analysis	
Question number	3	
Question	Describe the Arithmetic Shift Operations and Shift Micro Operations in Detail.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Apply
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Arithmetic Shift Operations	

Question Type	Subjective / Analysis	
Question number	4	
Question	Describe in detail about various Memory Transfers .	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Apply
Tags		

Subject	COA
Topic	DATA Representation and its Operations
Sub Topic	Memory Transfers

Question Type	Subjective / Analysis	
Question number	5	
Question	Explain the concept of Register Transfer Bus and describe its basic operations.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Remember
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Register Transfer Bus	

Question Type	Subjective / Analysis	
Question number	6	
Question	Explain the concept other Binary codes and state each with an Example.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Remember
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Binary Codes	

Question Type	Subjective / Analysis
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Question number	7	
Question	Describe the Architecture of Arithmetic Logic Shift Unit with examples.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Understand
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Arithmetic Logic Shift	

Question Type	Subjective / Analysis	
Question number	8	
Question	Describe the process of different Micro Operations in detail.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Apply
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Micro Operations	

Question Type	Subjective / Analysis
Question number	9
Question	Describe the different types of Memory Transfer Language.
Solution	

Question Metadata	Difficulty Level	Bloom's Taxonomy
	Medium	Remember
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	Memory Transfer Language	

Question Type	Subjective / Analysis	
Question number	10	
Question	What are Data Types? Explain Each Number System with an Conversion Example.	
Solution		
Question Metadata	Difficulty Level	Bloom's Taxonomy
	Easy	Remember
Tags		
Subject	COA	
Topic	DATA Representation and its Operations	
Sub Topic	DATA Representation	

INSTRUCTIONS:

- 1) Don't Edit Question Type.
- 2) In question number, you can enter both numbers, text and special characters.
- 3) Question - it can be **text and images**. **[Mandatory]**
- 4) Only maximum of 5 options can be added. Unused options can be left empty. Under Description Column add option content (it can be both **text and image**). **[Mandatory]**
- 5) In correct(Y) Column, if option is correct answer then include 'Y' . Only one option can have the value 'Y' other options can be left empty **[Mandatory]**
- 6) Optional - Select Manual Difficulty of a question (Default: Easy). To change, click over the value present in Manual Difficulty to enable Dropdown.
- 7) Optional - Select Bloom's Taxonomy only from Dropdown list. To access dropdown list, click existing value for Bloom's Taxonomy.