15/3/24 ATKT

DURATION: - 2½ hrs FE CS- 811301123 (DSA) (06) MARKS:- 75

Note: - (1) All questions are compulsory.
(2) All questions carry equal marks.
(3) Figures to the right indicates full marks

Q.1)	**Attempt any 4**		20M
1)	Compare combinational & Sequential Ckt	CO1-U	
2)	Explain the need of I/O module	CO1-R	
3)	Define counter, Classify its type with definition	CO2-U	
4)	Draw and Explain the Architecture of microprocessor	CO2-U	
5)	Solve using K map $y = \Sigma m(0,1,3,5)$ With its Truthtable & logical implementation	CO1-R	
6)	Implement basic gate using NAND gate	CO2-U	
Q.2)	**Attempt any 4**		20M
1)	List & Explain the characteristics of memory	CO2-R	
2)	Compare SRAM & DRAM	CO1-U	
3)	Explain different type of Addressing Mode	CO3-U	
4)	Write the function :- a) Register b) Accumulator c) A LU d) Interrupt ckt	CO2-R	
5)	Design 2 bit synchronous up counter with truth table and timing diagram	CO1-R	
6)	State and Explain De Morgan's theorem.	CO1-R	
Q.3)	**Attempt any 4**		20M
1)	Explain the Application of Microprogramming	CO2-R	
2)	Write a short notes on "Parallel Architecture"	CO1-U	
3)	Compare RISC and CISC processor	CO2-U	
4)	Interface 8K of EPROM and RAM using 4KB device	CO2-R	
5)	What is ROM, Explain various type of ROM	CO2-R	
6)	What is cluster computing, Enlist its advantages and disadvantages	CO3-U	
Q.4)	**Attempt any 5**		15M
1)	Compare Hardwired and Micro Programmed control	CO3-U	
2)	Compare I3,I5,I7 processor	CO3-U	
3)	Write a short notes on 'Cache Memory'	CO2-R	
4)	Define and Explain Multiplexer with its type	CO3-U	
5)	What is "Universal gate", Why it is called so	CO2-U	
6)	Compare Synchronous and Asynchronous Counter.	CO1-U	

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