PN/ SEM V (CBSGS)

Paper / Subject Code: 30302 / MICROPROCESSOR /NOV. 18

(3Hrs)

Max Marks: 80

NB: 1. Question No.1 Compulsory.
2. Solve any THREE from Q.2 to Q.6
3. Assume suitable data whenever necessary with justification.

Q1 Answer any FOUR questions

	(A)	Explain programming model of 8086.	05
	(B)	Explain DAA and XLAT instructions of 8086 Processor.	05
	(C)	Explain control registers of 80386.	05
	(D)	Explain assembler directives.	05
	(E)	Draw and Explain Floating Point Pipeline for Pentium Processor.	05
2.	(A)	Explain PPI 8255 with block diagram.	10
	(B)	Draw and explain block diagram of 8254 – PIT.	10
Q3.	(A)	Design 8086 based system with following specifications. (1) 8086 working at 8MHz at minimum mode (2) 256KB RAM using 64KB X 8 device (3) 128KB EPROM using IC 27128.	10
	(B)	Explain architecture of 8086 Processor with example.	10
Q4.	(A)	What is multitasking? Explain how task switching is implemented on 80386 processor.	10
	(B)	Explain, in brief, protection mechanism implemented on 80386.	10
Q5.	(A)	Explain, with neat diagram, register window implementation on Sun Supersparc processor.	10
	(B)	Explain branch prediction logic of Pentium processor.	10

Q6. Write short notes on

(A)	Page translation mechanism on 80386DX	05
(B)	Register window on Supersparc processor	05
(C)	Operating modes of 8254	05
(D)	8086 addressing modes	05

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MV / CBSGS / CMPN

Q.P. Code: 24565

NOV. 18

(3 HOURS) **[Total Marks: 80]**

N.B.: (1) Question no. 1 is compulsory.
(2) Attempt any three questions from remaining.
(3) Assume suitable data wherever necessary.

Q1. (a) What is system? Which are the different types of system? What is role of system analyst in analyzing, designing and implementation of system? **(10)**

(b) Explain development of SRS document with suitable example. **(10)**

Q2. (a) What are the steps to draw DFD? Draw DFD (upto two levels) for withdrawing money from bank. **(10)**

(b) What is UML? Draw class diagram for library management system showing different relationships between classes. **(10)**

Q3. (a) Explain cohesion and coupling in the context of software design. Why and how these concepts are important for good software design? **(10)**

(b) What is feasibility analysis? Explain payback analysis with example. **(10)**

Q4. (a) How to identify use case and actors for use case diagram? Identify use cases & actors and draw use case diagram for car rental system. **(10)**

(b) Explain requirement gathering techniques used in system analysis. **(10)**

Q5. (a) Explain different elements of activity diagram with suitable example. **(10)**

(b)What is the purpose of sequence diagram? Draw sequence diagrams for approval/rejection of admission forms for eligible/non-eligible candidates. **(10)**

(10)

Q6. Write short notes (any two) **(20)**

a) User Interface Design
b) Modeling Application Architecture
c) Business Process Re-engineering (BPR)
d) System security and integrity measures