Paper code - U219-123 (BE- F&FS)

Total No. of Questions – [8] Total No. of Printed Pages 02

G.R. No.	

DECEMBER 2019/ENDSEM - Backlog exam

S. Y. B. TECH. (COMPUTER ENGINEERING) (SEMESTER - I)

COURSE NAME: COMPUTER ORGANIZATION AND MICROPROCESSORS TECHNIQUES

COURSE CODE: CSUA21173

(PATTERN 2017)

Time: [**2 Hours**] [Max. Marks: **50**]

(*) Instructions to candidates:

1) **Answer Q.1, Q.2, Q.3, Q.4, Q.5 OR Q.6, Q.7 OR Q.8**
2) **Figures to the right indicate full marks.**
3) **Use of scientific calculator is allowed**
4) **Use suitable data where ever required**

Q.1) a) Solve the following Multiplication using Booth's Algorithm [6]
Multiplicand = 7
Multiplier =3

OR

b) Solve Division of the following numbers using restoring Division Algorithm: Dividend=1011, Divisor=0011 [6]

Q.2) a) Mention I/O commands in detail [6]

OR

b) Explain block diagram of I/O Module [6]

Q.3) a) Draw Instruction Cycle State Diagram. [6]

OR

b) What is user visible registers? List and explain it types in detail [6]

Q.4) a) List and explain 8086 Flag register with diagram. [4]

OR

b) Match the pairs: [4]

1. Immediate Addressing	A. MOV AX, [BX+DI+08]
2. Based Indexed with Displacement Mode	B. MOV CX, [BX]
3. Register Indirect Addressing Mode	C. ADD AX,[1592H]
4. Direct Addressing Mode	D. MOV AX,2387H

Q.5) a) Explain paging in detail [6]

b) List various Descriptor tables and Explain any one of them. [4]

c) State the rules for privileges. [4]

OR

Q.6) a) Differentiate between Segmentation in 80386 and 8086 [6]

b) List various types of privileged levels and Explain Descriptor privileged level [4]

c) Explain 3 fields of linear address. [4]

Q.7) a) Explain CMP and DEC instruction. [6]

b) Explain the use of Procedure with an example [4]

c) Write an 64 bit Assembly Program to Display the message " It's a LOVELY Day" (include comments in the code) [4]

OR

Q.8) a) Explain MOV and IN instruction [6]

b) List and explain the various sections in an assembly code for NASM [4]

c) Write an 64 bit assembly language macro 'scall' which can be used to accept or display any message (include comments in the code). [4]

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