

Roll No.

Total No. of Questions : 5] [Total No. of Printed Pages : 3

EGS-223**B.E. 5th Semester (CGPA) CSE (Zero Sem.)****Examination - 2018****COMPUTER ARCHITECTURE****Paper-CS-505****Time : 3 Hours]****[Maximum Marks : 60*****Note : Attempt all questions.***

1. (a) Explain the architecture and different components of computer system? 6
(b) Draw and explain the bus structure for the data transfer register common bus? 6
or
(a) Explain how instruction Fetching, Decoding and Execution is performed in basic computer? 6
(b) What do you mean by Instruction format? Explain various Instruction set design issues. 6
2. (a) Differentiate Hard wired and micro program control unit? 6

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(b) Explain instruction sequencing and instruction interpretation? 6

or

(a) Compare horizontal and vertical organization of microinstruction. Give their advantages and disadvantages. 6

(b) Explain control memory and address sequencing? 6

3. (a) How multiplication of floating point number achieved. Explain using flow chart. 6

(b) What are the various performance issues in pipelining? 6

or

(a) Explain addition of floating point number using flow chart? 6

(b) Explain the configuration of instruction pipelining. 6

4. (a) Draw and explain typical block diagram of DMA. 6

(b) Explain the different modes of data transfer between the central computer and I/O device. 6

or

(a) Explain I/O addressing in detail? 6

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(2)

- (b) How is interrupt I/O better than programmed I/O? Discuss completely how the various signals are exchanged during I/O? 6
5. (a) Explain associative memory with its hardware organisation. Explain how data is read and write in associative memory? 6
- (b) Draw and explain virtual memory organisation. 6
- or
- (a) Explain the operation of cache memory. 6
- (b) Define the different page replacement algorithm of cache memory. 6