

II B. Tech I Semester Supplementary Examinations, September - 2021**COMPUTER ORGANIZATION**

(Com to CSE, IT)

Time: 3 hours

Max. Marks: 75

Answer any **FIVE** Questions each Question from each unitAll Questions carry **Equal** Marks

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- 1 a) Explain how a binary number can be converted to an octal and a hexadecimal number. [8M]
 b) Explain in detail about fixed-point representation. [7M]
- Or
- 2 a) Design a 4-bit odd parity generator and checker and explain it. [8M]
 b) Draw a flowchart which explains multiplication of two signed magnitude fixed point number. [7M]
- 3 a) With the help of block diagram, explain the 4-bit binary subtractor. [8M]
 b) With the help of a diagram explain one stage of arithmetic logic shift unit. [7M]
- Or
- 4 a) Discuss in brief about the flowchart for basic computer operations. [8M]
 b) What is interrupt? Explain different types of interrupt. [7M]
- 5 a) Illustrate the use of various addressing mode with examples. [8M]
 b) List and explain the functions of control unit. [7M]
- Or
- 6 a) Writ about symbolic micro program and binary micro program. [8M]
 b) Discuss the two techniques to design the control unit. [7M]
- 7 a) Explain the various available formats and storage capability of DVD. [8M]
 b) What do you mean by the associative memory? Give the Hardware organization of associative memory. [7M]
- Or
- 8 a) Discuss the various cache block replacement algorithms. [8M]
 b) What are the different kinds of DMA? Explain. [7M]
- 9 a) Explain multiprocessor system and its characteristics. [8M]
 b) Discuss the functioning of crossbar switching network. [7M]
- Or
- 10 a) Explain the concept of speedup ratio with an example. [8M]
 b) Mention the pipeline conflicts that cause the instruction pipeline to deviate from its normal operation. [7M]

