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Code No: 153AG

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year I Semester Examinations, March - 2022

COMPUTER ORGANIZATION AND ARCHITECTURE

(Common to CSE, CSBS, CSIT, CSE(SE), CSE(CS), CSE(AIML), CSE(DS), CSE(N))

Time: 3 Hours

Max. Marks: 75

Answer any five questions

All questions carry equal marks

- 1.a) Explain in detail computer design and computer architecture.
b) Explain in detail life cycle of instruction. [9+6]
2. Explain the following.
a) Register transfer.
b) Input-Output and interrupt. [7+8]
3. Explain in detail various types of addressing modes with examples. [15]
- 4.a) Explain in detail about data transfer instructions.
b) Discuss the various types of instruction formats. [7+8]
- 5.a) Explain floating point representation of decimal numbers.
b) Explain the decimal addition operation with a neat diagram. [7+8]
- 6.a) Explain the subtraction operation with signed 2's complement data.
b) Explain in brief fixed point data representation. [6+9]
- 7.a) Explain the working process of DMA.
b) Compare cache and main memory. [9+6]
- 8.a) Explain in brief inter-processor communication.
b) Discuss the characteristics of multi-processors. [8+7]

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