

End Term Assessment– December 2020

Semester –III

(B. Tech CSE- All Sections)

Subject Code: CS2007/Computer Architecture and Organization
CS0207/Computer Organization and Architecture

Duration: 2 hours (including time for uploading)
(10 Minutes Max Grace time)

Max. Marks: 50

Instructions

- **Write name and registration number, page number, on all the pages, convert into one PDF, tag it with your registration number_Name_subject code_subject title**
- **The Assessment consists of 2 sections**
 - **Part A contains 10 questions of 2 marks each and all questions are compulsory.**
 - **Part B consists of 4 questions of 10 marks each, out of which 3 questions to be attempted.**
- **Hand written responses to be submitted/uploaded as scanned pages of answer sheets (max. 5 pages) within the mentioned duration.**

PART – A

2 * 10 =20 Marks (Each answer- Word Limit- 50 Words)

1. Define register indirect Addressing mode with example?
2. Write assembly language code for given instruction use one address instruction format?
$$Y = (E * F) + (G)$$
3. Compare Reverse Polish Notation and Polish Notation?
4. Perform addition of -2 and +4 using 2's complement system and show all intermediate steps of calculation according to 2's complement addition algorithm.
5. Explain the block diagram of micro-programmed control unit in brief?
6. What are Memory Reference instructions? Explain with examples?
7. What is the need of IO interface?
8. What is the working principle of Associative memory ?

9. How Handshaking approach solves the problem of Strobe control?
10. Write about the significance each line of Address bus while selecting RAM chip among multiple RAM chips and Rom chip?

PART – B

10 * 3 = 30 Mark (Each answer- Word limit- 250 words)

11. How we can store +6.185 in floating point system using E-127 rule?
12. Explain DMA mode of transfer process in detail?
13. What is cache memory? Explain different types of mapping done in cache memory?
14. Explain interpretation of computer instruction in instruction cycle using flowchart?