

Sant Gadge Baba Amravati University, Amravati Summer 2020 Exam
H. V. P. Mandal's College of Engineering & Technology, Amravati
Course: Computer Science & Engineering
B.E. Four Year Sixth Semester (Computer Science & Engineering) Summer 2020
Exam
6KS04 Computer Architecture
ONLY FOR BACKLOG STUDENTS

Marks: 20

Note:

- 1. Solve any Two Questions**
- 2. Each Question carries 10 Marks.**

Question No.1 (10 Marks)

- A. What are the typical elements of a machine instruction? (02 Mark)
- B. Briefly define immediate addressing. (02 Mark)
- C. What is the function of condition codes? (02 Mark)
- D. What is a delayed branch? (02 Mark)
- E. Define micro operation. (01 Mark)
- F. Define multithreading. (01 Mark)

Question No.2 (10 Marks)

- A. Why are transfer of control instructions needed? (02 Mark)
- B. Briefly define register addressing. (02 Mark)
- C. What general roles are performed by processor registers? (02 Mark)
- D. What are some typical characteristics of a RISC instruction set architecture? (02 Mark)
- E. What is clock cycle time? (01 Mark)
- F. What are some of the key benefits of clustering? (01 Mark)

Question No.3 (10 Marks)

- A. List some important instruction set design issues. (02 Mark)
- B. What are the advantages of using a variable-length instruction format? (02 Mark)
- C. What is a program status word? (01 Mark)
- D. What is loop unrolling? (01 Mark)
- E. Advantages of Microprogram control unit? (02 Mark)
- F. What are the chief characteristics of an SMP? (02 Mark)

Question No.4 (10 Marks)

- A. What is branch instruction? (02 Mark)
- B. Briefly define immediate addressing. (02 Mark)
- C. What is general purpose register? (01 Mark)
- D. What do you mean by delayed load? (01 Mark)
- E. Disadvantages of microprogram control unit? (02 Mark)
- F. What are some of the key OS design issues for an SMP? (02 Mark)