Roll No. | | | | | | | | | | | | | Total No. of Pages : 01

Total No. of Questions : 08

M.Tech.(IT) (2019 & Onwards) (CSE Engg.) (2015 to 2019) (Sem.–1)

ADVANCED COMPUTER ARCHITECTURE

Subject Code : MTCS-102

M.Code : 72630

Time : 3 Hrs. **Max. Marks : 100**

INSTRUCTIONS TO CANDIDATES :

1. **Attempt any FIVE questions out of EIGHT questions.**
2. **Each question carries TWENTY marks.**

1. a) Explain the role and importance of Instruction set architecture.
   b) Write a short note on hardwired and micro-coded processors.
2. a) Differentiate between multi core and pipelining.
   b) What is a hazard? How will you classify it?
3. a) List the advantage of cache in computer architecture. Discuss write through and write back cache techniques.
   b) How would you analyze the memory performance in computer architecture?
4. a) Discuss the Memory disambiguation technique.
   b) Explain the basics of branch prediction in advanced processor.
5. a) Discuss the functioning of SIMD processors.
   b) What is the basic concept of VLIW approach?
6. Explain the types of multithreading in resource sharing in computing system.
7. Define :
   a) Translation and Virtualization
   b) FSM processors
8. a) What is the role of Memory Synchronization in modern processor architectures?
   b) Discuss the models of memory consistency.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.