

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY, LONERE –
RAIGAD -402 103**

Winter Semester Examination – December - 2019

Branch: EXTC

Sem.:- V

Subject with Subject Code:- Computer Architecture (BTETC503)

Marks: 60

Date:- 13/12/2019

Time:- 3 Hr.

Instructions to the Students

1. Each question carries 12 marks.
2. Attempt **any five** questions of the following.
3. Illustrate your answers with neat sketches, diagram etc., wherever necessary.
4. If some part or parameter is noticed to be missing, you may appropriately assume it and should mention it clearly

- Q.1**
- a. Why you should do performance testing? What is the purpose, advantages, challenges of software performance test? [06]
 - b. Explain the following section with respect to assembly basic syntax? [06]
 1. The data section
 2. The BSS section
 3. The Text Section
- Q.2**
- a. With a neat diagram explain the internal organization of a processor [06]
 - b. How computer handles the information? Describe the following number format with examples –Binary, Hexadecimal, Boolean, date, integer, fixed point, general , exponential , suffix [06]
- Q.3**
- a. Describe the design of a hardwired control unit of a computer [06]
 - b. Explain the steps to perform the floating point multiplication operation with examples [06]

- Q.4** **a.** Differentiate between RAM and ROM with respect to Devices characteristics (max. ten characterises expected) [06]
- b.** What are the different functions performed by the memory management unit [06]
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- Q.5.** **a.** What is the purpose of input-output interface? With neat diagram explain Programmed I/O Mode [06]
- b.** With a neat sketch explain the block diagram of DMA Controller. [06]
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- Q.6** **a.** What is the basic concepts of pipelining [06]
- b.** Describe the data path and control considerations for pipelining [06]

Paper End
