

Code No: 125EN

**R15**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech III Year I Semester Examinations, November/December - 2017**

**COMPUTER ORGANIZATION AND OPERATING SYSTEMS**

(Common to ECE, ETM)

Time: 3 hours

Max. Marks: 75

**Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10-marks and may have a, b, c as sub-questions.

**PART - A**

(25 Marks)

- 1.a) With a neat diagram explain the basic operational concepts of computer. [2]
- b) What is Stack Organization? [3]
- c) Define Cache Memory. [2]
- d) What is a Micro Program? [3]
- e) What is an Interrupt? [2]
- f) What is an IO Processor? [3]
- g) Define Trashing. [2]
- h) How to describe the deadlock? Give an example. [3]
- i) List any four file operations. [2]
- j) Mention the objectives of File management System. [3]

**PART - B**

(50 Marks)

2. Explain the instruction cycle with a neat flow chart. [10]
- OR**
3. Give explanation about the fixed point and floating point representations in detail. [10]
4. What is Virtual Memory? Explain in detail. [10]
- OR**
5. With neat diagram, explain address selection for control memory. [10]
6. Explain about different modes of transfer. [10]
- OR**
7. Discuss about interrupt priorities. [10]
8. What are the goals of memory management? Explain the Contiguous Memory Allocation techniques. [10]
- OR**
- 9.a) What are the differences between paging and segmentation? [5+5]
- b) Explain the Deadlock Prevention Technique.
10. Explain the different file allocation methods. [10]
- OR**
11. Write short notes on file sharing and file protection. [10]