

Roll No .....

**EI/IC-502**

**B.E. V Semester**

Examination, December 2016

**Operating System**

*Time : Three Hours*

*Maximum Marks : 70*

- Note: i) Attempt any five questions.  
ii) All questions carry equal marks.

1. a) List the operating system services. 7  
b) Explain the principle of multiprogramming. 7

2. Do the deterministic modelling for the given load 14

Process CPU Burnt

P<sub>1</sub> 12 m sec.

P<sub>2</sub> 08 m sec.

P<sub>3</sub> 06 m sec.

P<sub>4</sub> 24 m secs.

The quantum time = 10 m secs.

For RR scheduling

3. a) Explain the process state diagram. 7  
b) Explain interprocess communication. 7

4. a) Explain the four necessary conditions for deadlock to occur. 7  
b) Discuss deadlock prevention and deadlock avoidance. 7

5. a) Differentiate between logical and physical address space. 7  
b) Explain paging and segmentation. 7

6. a) Discuss Directory systems. 7  
b) Discuss File Concepts. 7
7. a) Explain virtual memory concepts. 7  
b) Discuss demand paging. 7
8. Write short notes on any two: 14  
a) Frames  
b) Disc scheduling  
c) Contiguous and Non-contiguous allocation

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