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**BO—25—2016**

**FACULTY OF COMPUTER STUDIES**  
**B.C.A. (Second Semester) EXAMINATION**  
**OCTOBER/NOVEMBER, 2016**  
**COMPUTER APPLICATION**

Paper BCA S2.2  
(Operating System)

**(Friday, 25-11-2016)**

**Time : 10.00 a.m. to 1.00 p.m.**

*Time—Three Hours*

*Maximum Marks—80*

*N.B. :— (i) All questions are compulsory.*

*(ii) Figures to the right indicate full marks.*

1. Attempt the following : 20
  - (i) Explain process state block
  - (ii) Explain round-robin process scheduling technique
  - (iii) Explain functions of device management
  - (iv) Explain fragmentation in detail.
  
2. (a) Explain operating system as a resource manager. 8  
(b) Explain single contiguous memory allocation technique. 7

*Or*

- (c) Explain segmented memory management technique in detail. 8  
(d) Explain hierarchical structure of operating system. 7
3. (a) Explain process synchronization concept. 8  
(b) Explain channels and control unit in detail. 7

*Or*

- (c) Explain serial access storage device with example. 8  
(d) Explain DASD with example. 7
4. (a) Explain general models of file system in detail. 8  
(b) Explain simple file system. 7

P.T.O.

Or

- (c) Explain symbolic file system concept. 8
- (d) Explain static and dynamic partition in detail. 7
- 5. Write a short notes on (any *three*) : 15
  - (i) Explain swapping
  - (ii) Explain job control block
  - (iii) Functions of memory management
  - (iv) Functions of process management
  - (v) Logical file system.