

**M. SC. (COMPUTER SCIENCE) SEM – III (CHOICE BASED  
CREDIT & GRADE SYSTEM) : SUMMER - 2018  
SUBJECT : ELECTIVE : c) ADVANCED OPERATING SYSTEM**

Day : **Saturday**                      **S-2018-0933**  
Date : **28/04/2018**

Time : **03.00 PM TO 06.00 PM**  
Max. Marks : 60

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**N. B. :**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat and labelled diagram **WHEREVER** necessary.
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**Q. 1** Describe different types of scheduling? Discuss each scheduling algorithm in brief. **(15)**

**OR**

What is an operating system? Explain the objectives and functions of all operating systems.

**Q. 2** A) Answer **ANY ONE** of the following: **(08)**

- i) Explain Process Control Block in detail.
- ii) Illustrate demand paging in brief.

**B)** Answer **ANY ONE** of the following: **(07)**

- i) Describe different types of allocation methods in file organization.
- ii) Explain networking protocols.

**Q. 3** Answer **ANY THREE** of the following: **(15)**

- a) Write a note on Semaphores.
- b) Explain the necessary conditions for deadlocks to occur.
- c) Write a note on RPC clusters.
- d) Explain types of network threat.
- e) Describe the structure of directory.

**Q. 4** Write short notes on **ANY THREE** of the following: **(15)**

- a) Monitors
- b) Client/Server Computing
- c) Virtual Memory
- d) Threads
- e) I/O buffering

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