

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2017
(Third Semester)

Branch - COMPUTER TECHNOLOGY

OPERATING SYSTEMS

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks!)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Write about mainframe systems.
- 2 Define response time.
- 3 What are the options for breaking a Deadlock?
- 4 What are the conditions that must hold for Deadlock Prevention?
- 5 State the uses of overlays.
- 6 Define Swapping.
- 7 What is interrupt?
- 8 Write about Direct Memory Access.
- 9 What is mount point?
- 10 Comment on RAID.

SECTION - B (25 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Discuss about Multi programmed systems.
OR
b Explain about the Round robin scheduling with example.
- 12 a List out and explain the necessary conditions that hold simultaneously for deadlock occurrence.
OR
b Criticize the usage of Resource allocation graph.
- 13 a Write short notes on paging.
OR
b Discuss about segmentation.
- 14 a Write in detail about the interrupt device I/O cycle.
OR
b Briefly write about bad blocks.
- 15 a Explain in detail the various File Access Methods.
OR
b Bring out a detailed study on the various logical structures of a Directory.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Discuss about various types of system calls in detail.
- 17 Explain the Banker's algorithm for deadlock avoidance.
- 18 Explore about the demand segmentation in detail.
- 19 Describe in detail the different forms of disk scheduling.'
- 20 Elaborately various file allocation methods.