

(i) Printed Pages : 2 Roll No.

(ii) Questions : 9 Sub. Code :

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Exam. Code :

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**B.A./B.Sc. (General) 2nd Semester
(2054)**

COMPUTER SCIENCE

Paper—CS03 (Theory-A : Operating System Concepts)

Time Allowed : Three Hours]

[Maximum Marks : 30

Note :— Attempt **one** question each from Sections A to D.
Question No. 9 (Section-E) is compulsory. All questions
carry equal marks.

SECTION—A

1. What is Operating System ? Explain the function of Operating System. 6
2. Discuss the following functions :
 - (i) Spooling
 - (ii) Buffering
 - (iii) Process Scheduling. 6

SECTION—B

3. What are the components of Process ? Also discuss the various states of a Process. 6

4. What is Process Control Block (PCB) in detail ? 6

SECTION—C

5. Explain the term Deadlock ? How a deadlock can be detected and approaches to recover from the Deadlock ? 6
6. When a system is in safe state ? Which algorithm is used for keeping system in safe state ? Explain briefly. 6

SECTION—D

7. Explain Demand Paging. When does Page Fault occur ? Describe the action taken by OS when it occurs. 6
8. What is Virtual Memory ? Discuss advantages and disadvantages of Virtual Memory. 6

SECTION—E

9. (a) What is Interrupt ? Various classes of Interrupt. 2
- (b) Round Robin Algorithm. 2
- (c) Short and Long Term Scheduler. 2