

This question paper contains 3 printed pages]

ND—04—2023

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (CS) (Second Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

(CBCS/Revised Pattern)

COMPUTER SCIENCE

(Operating System)

(Thursday, 30-11-2023)

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

Time—Three Hours

Maximum Marks—75

N.B. :- (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

(iii) Assume suitable data, if required.

(iv) Use of any electronic media such as mobile phone, digital diary and electronic calculator is not permitted.

1. Attempt any *five* of the following (3 marks each) :

15

(a) Explain operating system services.

(b) Explain FCFS.

(c) Explain continuous memory allocation.

P.T.O.

- (d) Explain concept of multiprocessor.
- (e) Explain command interpreter in brief.
- (f) Explain users view of operating system.
- (g) Explain information maintenance.
2. Attempt any *three* of the following (5 marks each) : 15
- (a) Explain operating system structure.
- (b) Explain operating system as a resource manager.
- (c) Explain single processor computer system architecture.
- (d) Explain system boot in brief.
- (e) Explain process control system call with example.
3. Attempt any *three* of the following (5 marks each) : 15
- (a) Explain process state.
- (b) Explain context switching in brief.
- (c) Explain SJF algorithm.
- (d) Explain process control block.
- (e) Explain scheduler in brief.
4. Attempt any *three* of the following (5 marks each) : 15
- (a) Explain concept of scheduling.
- (b) Explain fragmentation concept.

- (c) Explain round robin algorithm.
 - (d) Explain scheduling queue in brief.
 - (e) Explain concept of segmentation.
5. Write short notes on any *three* of the following (5 marks each) : 15
- (a) Paging method
 - (b) Computer system organization
 - (c) System calls
 - (d) Extended machine
 - (e) Device management system calls.