ED–2875

B. C. A. (Part III) EXAMINATION, 2021

Paper fifth

COMPUTER OPERATING SYSTEM

Time : Three Hours

Maximum Marks : 100

Minimum Pass Marks : 40

Note : Answer any *two* parts from each Unit. All questions carry equal marks. Only simple calculator is allowed.

Unit—I

1. (a) What is batch processing ? Discuss batch OS with its advantages and disadvantages.

   (b) List out different services of Operating Systems and Explain.

   (c) Discuss functional job control language and supervisor service control with example.

Unit—II

2. (a) Explain the difference between long term and short term and medium term schedulers.

   (b) Describe I/O burst cycle and process state with example.

(c) Differentiate between Preemptive and Non-emptive scheduling with suitable example.

Unit—III

3. (a) Explain swapping technique in memory management with example.

(b) What is virtual memory ? Discuss virtual memory-overlays.

(c) Differentiate between internal and external fragmentation

Unit—IV

4. (a) Briefly discuss method used for implementing directories.

(b) Explain implementation of file mapping in the context of memory management.

(c) Discuss file support device directory with example.

Unit—V

5. (a) Discuss resource preemption combined approach to deadlock handling.

(b) Explain dead lock avoidance-bankers algorithm.

(c) Describe resource allocation graph with suitable example.