19. (a) Explain about the different types of storage devices.

Or

- (b) Explain I/O device handler scheduling algorithms.
- 20. (a) Explain the concepts of Logical file system.

Or

(b) Explain the windows operating systems.

S.No. 9073

**NSRGA 4** 

(For candidates admitted from 2003-2004 onwards)

B.C.A. DEGREE EXAMINATION, NOVEMBER 2022.

Part III — Computer Application — Major

**OPERATING SYSTEMS** 

Time: Three hours

Maximum: 100 marks

PART A —  $(10 \times 2 = 20)$ 

Answer ALL questions.

- 1. Define operating system.
- 2. List out two advantage of multiprogramming.
- 3. List out the advantages of partitioned allocation.
- 4. What are disadvantages of single contiguous allocation?
- 5. Define average turnaround time.
- 6. Define Race condition.
- 7. What is mean by dedicated devices?
- 8. What is a direct coupled system?

- 9. What are the various file operations?
- 10. What is file mapping function?

PART B — 
$$(5 \times 6 = 30)$$

Answer ALL questions choosing either (a) or (b).

11. (a) Explain early computer systems.

Or

- (b) Explain the Interrupt structure and processing.
- 12. (a) Discuss the three common strategies of partition allocation.

Or

- (b) Write short notes on swapping and overlay techniques.
- 13. (a) What is job scheduling and discuss about the policies?

Or

- (b) List out the method using for detecting deadly embraces.
- 14. (a) Explain the basic functions of device management.

Or

(b) Explain the I/O traffic controller.

S.No. 9073

15. (a) Write short notes on symbolic file systems.

Or

(b) List out the access method of logical file systems.

PART C — 
$$(5 \times 10 = 50)$$

Answer ALL questions choosing either (a) or (b).

16. (a) Explain the types of operating systems in details.

Or

- (b) Explain about the I/O programming concepts.
- 17. (a) Explain the partition allocation and deallocation algorithms with diagram.

Or

- (b) Explain the segmented memory management techniques.
- 18. (a) Explain the process scheduling in details.

Or

(b) Explain the process synchronization and its functions.