## B.Sc DEGREE (CBCS)EXAMINATION, AUGUST 2021

### Third Semester

B.Sc Physics Model II Computer Applications

## VOCATIONAL COURSE - CA3VOT06 - OPERATING SYSTEM

2017 Admission Onwards

FE41CF98

Time: 3 Hours                                                                 Max. Marks : 60

### Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1.  What do you mean by CPU scheduling?

2.  Write the specialty of Batch Operating System.

3.  What is CPU bound process?

4.  What are the types of Schedulers?

5.  Why do we need scheduling?

6.  What is FCFS?

7.  What is starvation?

8.  Define SRTF Strategy?

9.  What is external fragmentation?

10. What is Belady's anomaly?

11. What is the meaning of Deadlock ?

12. Write the concept of File.

(10×1=10)

### Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Briefly explain different views of Operating System.

14. Compare multiprocessor O and  personal computer OS.

15. Briefly explain the Process States with neat diagram.

16. How CPU Scheduling concepts get importance in Operating Systems?

17. What are the three important criteria to be considered, while selecting an algorithm?

18. Explain Round Robin scheduling.

19. What is static binding? Explain.

20. Narrate Fixed partition memory strategies and Variable partition memory strategies.

21. Memory partitions of 100KB, 500KB, 200KB, 300KB, 600KB (in order) are available. How would best fit, worst fit, first fit and next fit algorithm place processes of 212KB, 417KB, 112KB and 426KB (in order)? Which algorithm makes the most efficient use of memory?

(6×5=30)

## Part C

*Answer any **two** questions.*
*Each question carries **10** marks.*

22. Describe the various Operating system services.

23. Differentiate pre-emptive and non pre-emptive scheduling? Explain one algorithm from each with respective Gantt charts.

24. Explain priority based scheduling with example.

25. Narrate file structures and file access methods.

(2×10=20)