Fifth Semester B.Sc., Degree Examinations

March / April 2021

(Semester Scheme) (2016-17 onwards)

COMPUTER SCIENCE - VI

SSE741 : Operating System and Unix

e: 3 hrs.

Max.Marks:50

PART - I

I. **Answer the following questions :**　　　　5X1=5

1. What is an operating system ?

2. Name any one file access method

3. Expand POSIX.

4. What is Vi editor ?

5. Write the syntax of 'if' in shell script.

PART - II

II. **Answer all the following questions.**　　　　5X2=10

6. List any four functions of operating systems.

7. In what sence the file is said to be protected.

8. Write a note on the parent – child relationship.

9. Differentiate relative and absolute manner of changing file ownership.

10. Write a shell script to add two given numbers passed as comment line arguments.

PART – III

III. **Answer any THREE of the following questions:** 3X5=15

11. a) What is scheduling ?

　　b) For the following write gantt chart and find average waiting time using FCFS and SJF scheduling.

Process	Burst time (in milli seconds)
P1	24
P2	3
P3	3

(4+1)

12. a) What is meant by deadlock ?

    b) Explain deadlock characteristics with examples.

    (1+4)

13. Explain the following unix commands

    i) cal ii) who iii) cat iv) echo v) mv

    (5)

14. Explain the modes of vi – editor. How can you switch from one mode to another?
    Explain.

    (5)

15. a) What is a shell script ?

    b) Explain the shell's interpretive cycle.

    (1+4)

PART – IV

IV. Answer any TWO full questions:

2X10=20

16. a) With example explain round robin scheduling.

    b) Explain paged memory management.

    c) Explain deadlock avoidance.

    (4+3+3)

17. a) With a neat diagram, explain the unix architecture.

    b) List and explain the file attributes.

    c) Explain editing text in vi – editor.

    (4+4+2)

18. a) With example, explain the case conditional.

    b) With syntax and example, explain while and for loops shell scripts.

    c) Write a shell script to reverse a number.

    (3+4+3)

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