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CB – 215

IV Semester B.A./B.Sc. Examination, August/September 2023

(CBCS) (2015 – 16 and Onwards) (Repeaters)

COMPUTER SCIENCE

Paper – IV : Operating System and Unix

Time : 3 Hours

Max. Marks : 70

Instruction : Answer *all* the Sections.I. Answer **any ten** questions. **Each** carries **two** marks. (10×2=20)

- 1) Define operating system.
- 2) What do you mean by processor affinity ?
- 3) Define turnaround time.
- 4) List any two deadlock handling methods.
- 5) What do you mean by fragmentation ?
- 6) Define thrashing.
- 7) List any four file attributes.
- 8) Define a zombie process.
- 9) What are positional parameters ?
- 10) What is the use of fork() function in unix ?
- 11) Explain nohup command.
- 12) What are read only variables ? Give an example.

II. Answer **any five** questions. **Each** carries **ten** marks. (5×10=50)

- 1) a) Explain multiprocessor and real time operating system. 5
- b) Explain any two components of operating system. 5
- 2) a) Explain life cycle of a process with a neat diagram. 5
- b) Explain different types of schedulers. 5
- 3) a) Explain dining philosopher problem. 5
- b) Explain resource allocation graph with example. 5

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- 4) a) Briefly explain file protection. 5
b) Explain any two disk scheduling algorithm with suitable example. 5
- 5) a) Explain salient features of unix. 5
b) Explain filter command with examples. 5
- 6) a) What are the different modes of setting file permissions ? Explain. 5
b) Write a note on unix file system structure. 5
- 7) a) Explain any five file related commands. 5
b) Write short notes on shell variables. 5
- 8) a) Write a shell script to find whether a number is prime or not. 5
b) Explain different branching control structure in shell programming. 5
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