

TDC Even Semester Exam., 2019

COMPUTER SCIENCE

(Pass)

(4th Semester)

Course No. : BCSP-401

(Operating System Architecture and
System Analysis and Design)

Full Marks : 35

Pass Marks : 12

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

Answer **five** questions, taking **one** from each Unit

UNIT—I

1. (a) Discuss the basic functions of an operating system. 5
- (b) What do you mean by time-sharing system? 2
2. (a) What do you mean by process control block? Explain. 3
- (b) Discuss the different levels of process scheduler. 4

UNIT—II

3. (a) What do you mean by contiguous memory allocation? Explain. 3
- (b) Discuss the advantages and disadvantages of paging. 4
4. Discuss the concept of segmentation with the help of suitable example. 7

UNIT—III

5. (a) What do you mean by file? What are the basic attributes of a file? 1+2=3
- (b) Explain the acyclic-graph directory. 4
6. (a) Explain the linked allocation of file. 5
- (b) What is interprocess communication? 2

UNIT—IV

7. (a) What do you mean by system? What are the different types of system? Explain. 1+4=5
- (b) What is prototyping? 2
8. What do you mean by system analysis? Discuss the different tools of structured analysis. 1+6=7

(3)

UNIT—V

9. Explain the following : $3\frac{1}{2}+3\frac{1}{2}=7$

(a) System proposal

(b) Software maintenance

10. Explain the procedure for hardware/software selection. 7
