2021
B.E. (Electronics and Communication Engineering)
Seventh Semester
Departmental Elective – III
EC-711: Operating Systems

Time allowed: 3 Hours   Max. Marks: 50

NOTE: Attempt _five_ questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I.   Attempt the following:-

a) How functions ensure efficient operation in Operating System?

b) What are conditions for dead lock?

c) Explain Mount point.

d) List the outcomes produced on Disk Write.

e) How page fault can be handled?   (5x2)

UNIT – I

II.   Explain fundamental state transition diagram for process with process control block.
(10)

III. Find the number of page fault for following page reference string using FIFO and LRU page replacement policies. Assume there are three page frames for allocation and first three pages account for page fault.
Reference string: 5,4,3,2,1,4,3,5,4,3,2,1,5.   (10)

IV.   Explain with diagram Micro Kernel Based operating system.   (10)

UNIT – II

V.   Consider four processes PI, P2, P3 and P4 with burst time 3m sec, 6m sec, 4m sec and 2m sec enters scheduler in order PI, P2, P3, and P4. Calculate waiting time, average waiting time, turnaround time and average turnaround time using FCFS scheduling method. Assume all process arrive at '0'm sec.   (10)

VI.   Explain the Deadlock detection algorithm for single and multiple instance type
(10)

VII. Differentiate in detail between Android, IOS and window operating system.
(10)

x-x-x