Karunya University
(Karunya Institute of Technology and Sciences)
(Declared as Deemed to be University under Sec.3 of the UGC Act, 1965)

End Semester Examinations - 2015-16 Even Semester - May 2016

14CS3080 Embedded Linux

Set B

Time : 3 hrs
Total Marks: 100

1. Find out the Turnaround Time (ta), the Weighed Turnaround Time (w) and the Average Value of both for the following scheduling process.

   (i) Least Completed Time Next (LCN) Preemptive Scheduling and (10)

   (ii) Shortest Time to Go (STG) Preemptive Scheduling. (10)

Process	P1	P2	P3	P4	P5
Arrival Time	0	2	3	4	8
Service Time	3	3	5	2	3

OR

2. Write short notes on the following functions in RTOS.

   (i) Linux File System. (10)

   (Ii) Linux architecture. (10)

3. Draw and explain the Kernel Architecture in Linux. (20)

OR

4. Explain the various processes that are initialized during the Startup Sequence and discuss about Embedded Linux Distributions. (20)

5. a. With neat sketch explain the Startup Sequence Operations on loaded when an Operating System is switched on. (16)

   b. Differentiate Linux and Embedded Linux. (4)

OR

6. a. What are the methods used for handling the Memory Management in Embedded Linux? (12)

   b. With necessary diagram explain the optimization of storage space. (8)

7. a. Explain the Network Device Driver bound with a subsystem Interface with necessary diagrams. (12)

   b. Explain the timer that is used to recover the system from software Anomalies by resetting the processor. (8)

OR

8. Discuss the following interfaces in Linux RTOS

   (i) I^2C Subsystem (10)

   (ii) Programming with Pthreads (10)

9. Explain the Application Porting Layer implemented in Linux Kernel. (20)

Wishing you All the Best