TIME : 3 Hours   Max.Marks : 100

PART – A

(20 x 2 = 40 MARKS)

ANSWER ALL QUESTIONS

1. Why do you need at least one timer device in an embedded system?

2. Define System on Chip (SoC) with an example.

3. Give any two uses of VLSI designed circuits

4. What are the various models used in the design of an embedded system?

5. Why do you need a cross compiler?

6. What is meant by CAN?

7. Write the objective of a kernel.

8. Define USB.

9. Define high level language.

10. What are the advantages of C++?

11. What is round robin scheduling?

12. When is an RTOS needed in embedded software?

13. What are the three common model strategies that a scheduler may adapt?

14. What is the use of semaphore?

15. When do you use OS_ENTER-CRITICAL ( )and OS_EXIT_CRITICAL( )?

16. Expand and explain HDLC.

17. What are the advantages of building ISR queues?

18. Compare Round Robin and real time scheduling.

19. What is meant by watch dog timer?

20. What is quasi-bi-directional port?

PART – B

(5 x 12 = 60 MARKS)

ANSWER ANY FIVE QUESTIONS

21(i) Explain the various forms of memories present in a system ?   (6)

(ii) List the hardware units that must be present in the embedded systems.   (6)

22. Compare the various bus standards that are used to provide parallel

communication.

23. Explain how semaphores are handled.

24. Explain the different program layers in the embedded software and also

the process of converting a .C. program into the file for ROM image

25. List the goals of operating system services.

26. (i) What are the functions of queues? Explain it   (6)

(ii) Explain how interrupt service routines are serviced in an embedded

system.   (6)

27. i) What are the advantages of Assembly language coding?   (6)

ii) List the various software tools of embedded systems and its uses.   (6)

28.(i) Explain the function related to memory allocation in MUCOS   (6)

(ii) Differentiate process, tasks and threads.   (6)

*******THE END*******