[07 – 4124]

IV/IV B.Tech. DEGREE EXAMINATION.

First Semester

Computer Science and Engineering

Elective – III – EMBEDDED SYSTEMS

(Common with IT)

(Effective from the admitted batch of 2006–2007)

Time : Three hours   Maximum : 70 marks

First question is compulsory.

Answers any FOUR from the remaining.

All questions carry equal marks.

Answer all parts of any question at one place.

1.   (a)   Explain Random Access Memory.

     (b)   Explain Interrupt request.

     (c)   Explain the characteristics of shared data bug.

     (d)   Explain task.

     (e)   Explain Hard real time schedule considerations.

     (f)   Describe Cross compilers.

     (g)   Explain Flash memory.

2. (a) Describe typical hardware used in Embedded systems.

   (b) Explain open collector and tri-stating outputs.

3. (a) Describe about Bus system in Embedded system.

   (b) Discuss in detail about DMA.

4. (a) Explain interrupt latency.

   (b) Describe function queue scheduling architecture.

5. Describe different kinds of semaphores and explain how they can be applied in Embedded system.

6. (a) Describe Events in RTOS.

   (b) Describe Message Queues.

7. (a) Explain Linkers and Locaters for Embedded Systems.

   (b) Explain the procedure to get Embedded Systems into Target systems.

8. (a) Discuss the procedure for testing on host machines.

   (b) Describe logic analyzers.