

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. Sem. – IInd - Examination – June/July- 2011****Subject code: 1720306****Subject Name: Embedded System Design****Date: 27/06/2011****Time: 10:30 am – 01:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 Explain various methods of implementation of digital camera along with its merits and demerits. **14**

Q.2 (a) Explain advantages of Huffman encoding with example. **07**
(b) Define process and threads in detail. **07**

OR

(b) Explain the terms atomicity and starvation with the help of an example. **07**

Q.3 Explain with all conditions the example of a lift using State Chart. **14**

OR

Q.3 Explain the sleeping barber problem in context to semaphore in detail. **14**

Q.4 Explain various operating system scheduling algorithm. **14**

OR

Q.4 Explain flight simulator example of embedded application. **14**

Q.5 (a) Describe Reader-writer problem in detail. **07**

(b) Describe producer-consumer problem with semaphores. **07**

OR

Q.5 Explain concepts of state charts: clustering, zooming out, zooming in, default states, history maker. **14**
