Reg. No. : | | | | | | | | | | |

Question Paper Code: 31854

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Fifth Semester

Information Technology

01UIT504 – EMBEDDED COMPUTING SYSTEMS

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define embedded systems with examples.
2. List out the major goals of the embedded system design.
3. What is interrupting masking?
4. Define worst-case execution time.
5. Define preemption.
6. List out the major styles of inter process communication.
7. What are requirements and specification?
8. Draw the waterfall model of software development.
9. What is design technology?
10. What is the purpose and function of the video accelerator?

PART - B (5 x 16 = 80 Marks)

11. (a) Describe in details about the ARM processor. (16)

Or

(b) Summarize the major steps in the embedded system design process. (16)

12. (a) Draw a timing diagram and explain complete operation of DMA. (16)

Or

(b) Describe in detail about the components of embedded programs. (16)

13. (a) Describes why automobile engines require multi-rate control. (16)

Or

(b) Explain the Inter-Process Communication (IPC) mechanisms with appropriate diagrams. (16)

14. (a) Explain about the design flow of an embedded system. (16)

Or

(b) Explain about the distributed embedded systems. (16)

15. (a) Explain about the design and implementation of alarm clock. (16)

Or

(b) Discuss the theory of operation and architecture of Telephone Answering Machine. (16)