Reg. No. :

Question Paper Code: 31584

B.E. / B.Tech. DEGREE EXAMINATION, NOVEMBER 2015

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. What is the purpose of microprocessor?

2. List out the major goals of the embedded system design.

3. Draw the structure and behaviour of four-cycle handshake.

4. Define worst-case execution time.

5. Define threads and process.

6. List out the major styles of inter process communication.

7. What are the five levels of capability maturity model?

8. Draw the waterfall model of software development.

9. What are the inputs of telephone answering machine?

10. What is the purpose and function of the video accelerator?

11. (a) Explain the hardware and software architecture for moving map.   (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) Compiling an arithmetic expression in the following arithmetic expression, *a*b + 5*(c – d)*.   (16)

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

Or

(b) Explain the priority based scheduling and types with example.   (16)

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

Or

(b) Discuss the quality assurance required for an embedded system.   (16)

15. (a) Discuss the architecture of digital still cameras.   (16)

Or

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

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