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

Question Paper Code: 37404

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

Seventh Semester

Electronics and Communication Engineering

01UEC704 - EMBEDDED AND REAL TIME SYSTEMS

(Regulation 2013)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. List the functions of ARM processor in supervisor mode.

2. How is ARM processor different from other processors?

3. What is a data flow graph?

4. What does a linker do?

5. Define context switching.

6. What are the three conditions that must be satisfied by the re-entrant function?

7. What is best effort routing?

8. What is the use of attached accelerator to CPU?

9. State the function of Set-Top-Box.

10. What are FOSS tools for embedded systems?

PART - B (5 x 16 = 80 Marks)

11. (a) Explain about cache memory in ARM processor.   (16)

Or

(b) Explain briefly the model train controller system. (16)

12. (a) Explain on how on chip memory management schemes can improve higher speed process. (16)

Or

(b) Draw the three structures commonly used in embedded software with programming and elaborate with an example. (16)

13. (a) Describe in detail about the inter process communication mechanism. (16)

Or

(b) Why need multiprocessors? Analyze the performance of the system with multiple processors. (16)

14. (a) Explain briefly I^2C bus and Ethernet. (16)

Or

(b) Explain in detail about networks for Embedded Systems with an example. (16)

15. (a) Explain the design procedure of data compressor with its specifications and requirements. (16)

Or

(b) Discuss the design of Personal Digital Assistants with step by step procedure. (16)

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