Reg. No. :

Question Paper Code: 37404

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2018

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 BIOS?

4. What does a linker do?

5. List the process of scheduling policies.

6. Define the power optimization strategies used for processes?

7. What is best effort routing?

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

9. Define Hardware and software co-design.

10. What is PDA?

PART - B (5 x 16 = 80 Marks)

11. (a) (i) What are the parameters to be considered while designing an embedded system process? (8)

(ii) Explain about cache memory in ARM processor. (8)

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) (i) Define scheduling policy and explain. (8)

(ii) Describe the Pre emptive real time operating system. (8)

Or

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

14. (a) Discuss about accelerator based embedded system and network based embedded systems. (16)

Or

(b) Briefly describe the design of accelerators with an algorithm. (16)

15. (a) Discuss about data compressor in detail with suitable diagrams. (16)

Or

(b) Discuss the design of personal digital assistants with step by step procedure. (16)

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