

PART B — (5 × 13 = 65 marks)

PART C — (1 × 15 = 15 marks)

11. (a) Draw and explain ARM architecture in detail.

Or

(b) (i) Design a Model Train Controller with suitable diagrams, and explain. (7)

(ii) Give an account on CPU power consumption. (6)

12. (a) (i) Discuss the basic types of memory components, that are commonly used in embedded systems. (7)

(ii) Compare and contrast the debugging techniques used in embedded system. (6)

Or

(b) Explain energy, power and program size optimization in detail.

13. (a) (i) Compare RMS versus EDF. (7)

(ii) Explain about Windows CE with a neat diagram. (6)

Or

(b) Explain inter process communication mechanisms and evaluating operating system performance in detail.

14. (a) (i) With a neat diagram, describe the typical bus transactions on the I²C Protocol.

(ii) Discuss the role of distributed embedded architecture available for embedded systems.

Or

(b) Explain the various design methodologies and design flows in system design.

15. (a) (i) Illustrate the working of engine control unit with a diagram. (7)

(ii) Illustrate the working of Video player. (6)

Or

(b) Write technical notes on "Applications of Embedded systems in software modem and digital still camera".

16. (a) Design data compressor using UML methodology. Analyse its design flow, requirements, specifications with architectural design.

Or

(b) From design flow analysis to architectural design, illustrate video accelerator using UML methodology.