

Register No.:

1768

October 2024

Time – Three hours
(Maximum Marks: 100)

- N.B.**
1. Answer all questions under Part-A. Each question carries 3 marks.
 2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.

PART – A

1. Compare Harvard architecture and Von-Neumann architecture.
2. What is meant by exception?
3. List the features of ARM instruction set.
4. What is THUMB state instruction set?
5. Mention the features of LPC 2148.
6. What is VIC?
7. Write down the features of GPIO.
8. List any three registers of ADC.
9. Mention any three functions of OS.
10. Define context switching.

[Turn over.....

PART – B

11. (a) (i) Compare RISC and CISC.(4)
(ii) Explain the features of embedded system. (10)
(Or)
(b) Explain the various modes of operation of ARM.
12. (a) Explain about the data processing instructions and branch instructions.
(Or)
(b) Write an ARM assembly language program for addition, subtraction and multiplication.
13. (a) Draw and explain the block diagram of LPC 2148.
(Or)
(b) Explain the following: crystal oscillator, PLL, power control, reset and wakeup timer.
14. (a) Explain the function of timer/counter with its register description.
(Or)
(b) Explain about any three registers of UART0.
15. (a) Write a note on real time operating system (RTOS).
(Or)
(b) Explain about any two types of semaphores.
