

Register No.:

128

April 2023

*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. List down the embedded system devices.
2. Write about CPU registers.
3. List the classification of instructions.
4. Write the use of stack instructions.
5. Write short notes on crystal oscillator.
6. Write about External interrupts.
7. Write the features of ADC.
8. Write down the features of GPIO.
9. Write about message queues.
10. List the functions of OS.

PART - B

11. (a) (i) Draw the data flow model of ARM and explain.(7)
(ii) Explain pipeline.(7)
(Or)
(b) (i) Explain interrupts.(7)
(ii) Compare RISC and CISC processors.(7)

[Turn over.....

12. (a) (i) Explain about Data Processing instructions. (7)
(ii) Explain about Software Interrupt instruction. (7)
(Or)
- (b) (i) Explain about Program Status Register instruction. (7)
(ii) Explain about Stack instructions. (7)
13. (a) (i) Write down the features of LPC 2148. (7)
(ii) Write the details of on chip memory of LPC 2148.(7)
(Or)
- (b) (i) Explain the types of buses.(7)
(ii) Explain VIC and write down the features.(7)
14. (a) (i) Draw the block diagram of Timer / counter and List the blocks.(7)
(ii) Write down the features of GPIO.(7)
(Or)
- (b) Draw the block diagram and explain the features of UART0.
15. (a) (i) Explain round robin scheduling.(7)
(ii) Explain the functions of OS.(7)
(Or)
- (b) (i) Explain the types of semaphore.(7)
(ii) Explain Re-entrancy.(7)