

Reg. No.

Question Paper Code

21312

M.E. / M.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2022

First Semester

M.E. - Embedded System Technologies

20PESPC104 - SOFTWARE FOR EMBEDDED SYSTEMS

(Regulations 2020)

Duration: 3 Hours

Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

*Marks,
K-Level, CO*

- | | |
|--|----------|
| 1. List the types of arrays. | 2,K1,CO1 |
| 2. Predict the command to copy data from memory to file. | 2,K1,CO1 |
| 3. State the need for Assembler Directives. | 2,K1,CO2 |
| 4. Quote the general form of loop statement. | 2,K1,CO2 |
| 5. Specify the contents of a header file. | 2,K2,CO3 |
| 6. Classify the programming languages based on the generation. | 2,K2,CO3 |
| 7. Define Baudrate. | 2,K1,CO4 |
| 8. List design considerations needed when using sEOS. | 2,K1,CO5 |
| 9. Point out different modes of file opening. | 2,K1,CO6 |
| 10. Distinguish between files and modules. | 2,K2,CO6 |

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11. a) Write an elaborate note on debugging with GDB. 13,K2,CO1

OR

- b) Discuss the setting up method of break point with convenience variables. 13,K2,CO1

12. a) With suitable example programs explain any three Decision control statements. 13,K2,CO2

OR

- b) With the help of Software Life Cycle Diagram, Explain the programming process happening in Embedded System. 13,K2,CO2

13. a) Present the short notes on creating loop timeouts and hardware timeouts with suitable examples. 13,K2,CO3

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

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OR

- b) Illustrate the need for header files and ports with suitable examples. *13.K2.CO3*

14. a) Describe the embedded serial communication and scheduling data transmission. *13.K2.CO4*

OR

- b) Explain Stopping task mechanism used in SEOS architecture. *13.K2.CO5*

15. a) Write a program that takes a sentence as input from the user and computes the frequency of each letter. Use a variable of dictionary type to maintain the count. *13.K2.CO6*

OR

- b) List the methods used to copy dictionaries and write a program to copy the dictionary using those methods. *13.K2.CO6*

PART - C (1 × 15 = 15 Marks)

16. a) Model the Intruder alarm system using necessary embedded concepts. *15.K3.CO4*

OR

- b) Discuss the setting up method of break point with convenience variables. *13.K2.CO1*