PAPER ID-420254

Subject Code: KOE062

Roll No: | | | | | | | | | | | | | |

BTECH
(SEM VI) THEORY EXAMINATION 2021-22
EMBEDDED SYSTEM

Time: 3 Hours ***Total Marks: 100***

Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2*10 = 20

Q.no	Questions	Marks	CO
(a)	Define Embedded Systems.	2	1
(b)	Differentiate between Embedded System and Real Time Systems.	2	1
(c)	Define Embedded Networking.	2	2
(d)	Discuss about the I/O Device Ports.	2	2
(e)	Briefly discuss about the Embedded Product Development Life Cycle.	2	3
(f)	What is the need of Embedded Firmware Development Environment?	2	3
(g)	What do you understand by the Real Time Operating System (RTOS)?	2	4
(h)	Define Process and Threads.	2	4
(i)	What do you understand by the Embedded System Application Development?	2	5
(j)	Mention the design issues of Embedded System Application Development.	2	5

SECTION B

2. Attempt any *three* of the following: 10*3 = 30

Q.no	Questions	Marks	CO
(a)	Explain the concept and application of Commercial Real Time databases.	10	5
(b)	What is Application Specific Integrated Circuit (ASIC)? Explain the role of ASIC in Embedded system design.	10	2
(c)	Explain the concept of Logic Analyzer in Embedded system design.	10	3
(d)	Explain the Testing steps on Host machine. Why Host system is used for most of the development?	10	4
(e)	Discuss the concept of Target Hardware Debugging in Embedded System.	10	1

SECTION C

3. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	What is the role of RAM and ROM in and Embedded system?	10	5
(b)	Explain the product Life-Cycle curve of an Embedded product development.	10	2

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4. Attempt any *one* part of the following: 10 *1 = 10

Q.no	Questions	Marks	CO
(a)	Discuss about the Serial Peripheral Interface (SPI) and Inter Integrated Circuits (I2C) in Embedded system.	10	1
(b)	Discuss about the applications of the Embedded system and designing issues.	10	3

5. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Describe timing and clock in Embedded system with relevant example.	10	4
(b)	Explain the role of IDE for Embedded software development.	10	5

6. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Describe the concept of analyzing the Embedded system specification.	10	2
(b)	Discuss in detail about the basics of Embedded system and its structural units.	10	1

7. Attempt any *one* part of the following: 10*1 = 10

Q.no	Questions	Marks	CO
(a)	Describe about the requirements of the Programming Embedded systems	10	3
(b)	Discuss Functional model versus Architecture models of an Embedded system.	10	4