

G. Narayanamma Institute of Technology & Science**(Autonomous)****(for Women)**

Shaikpet, Hyderabad- 500 104

IV-B.Tech I-Semester Regular Examinations, February-2022.**EMBEDDED SYSTEM DESIGN****(Common to ECE & ETE)****Max. Marks: 70****Time: 03 Hours***(Answer any 05 full questions. Each question carries 14 marks)*

Q.No	Question	Marks	Bloom's Level
Q.1(a)	Compare embedded systems and general computing systems.	[07]	[L3]
(b)	List and explain major applications of embedded systems.	[07]	[L2]
Q.2(a)	Based on the complexity and performance explain the classification of embedded systems.	[07]	[L2]
(b)	Explain the various purposes of embedded systems in detail with illustrative examples.	[07]	[L2]
Q.3(a)	What are the different types of memories used for Program storage in Embedded System Design?	[07]	[L2]
(b)	Explain the different on-board communication interfaces in brief.	[07]	[L2]
Q.4(a)	Explain the different Input and output subsystems of Embedded Systems.	[07]	[L2]
(b)	Explain the components of a typical embedded system in detail.	[07]	[L2]
Q.5(a)	Explain the advantages of 'Assembly language' based Embedded firmware development.	[07]	[L3]
(b)	Explain about Real Time clock and watch dog Timer in detail.	[07]	[L4]
Q.6(a)	Explain about Reset Circuit, Brown-out Protection Circuit with necessary Circuits diagrams.	[07]	[L4]
(b)	List out various Embedded Firmware Design Approaches in detail.	[07]	[L2]
Q.7(a)	Contrast threads and processes in detail.	[07]	[L3]
(b)	What is an Operating System? Where is it used and what are its primary functions?	[07]	[L2]
Q.8(a)	What is task (process) synchronisation? What is the role of process synchronisation in IPC?	[07]	[L3]
(b)	Explain the synchronous and asynchronous messaging mechanisms for IPC.	[07]	[L4]

END OF THE QUESTION PAPER