

Exam. Code : 208601

Subject Code : 4704

M.Sc. Information Technology 1st Semester

ANALYSIS & DESIGN OF EMBEDDED SYSTEM

Paper-MIT-101

Time Allowed—3 Hours] [Maximum Marks—100

Note :— Attempt **five** questions, selecting at least **one** question from each Section. The **fifth** question may be attempted from any Section. All questions carry equal marks.

SECTION-A

1. What is an embedded system ? What are its characteristics ? Explain the basic architecture of an embedded system. 20
2. Discuss the criteria for selecting a microcontroller. Draw the generalized functional block diagram of microcontroller by specifying each block. 20

SECTION-B

3. Write down the various features PIC, AVR and Micro-controllers. 20
4. Explain the architecture and Pin diagram of Motorola 68000. 20

SECTION-C

5. (a) Explain storage device manipulations. 10
(b) Discuss the Kernel architecture of real time operating system. 10
6. Explain various functions of an operating system. Name and explain different categories of operating systems. 20

SECTION-D

7. How can you co-design the embedded system ? How hardware and software helps in embedded system for best performance ? 20
8. What are the various development tools, used for a good embedded system ? 20