

## Sample Question Paper

### **M. Sc. Semester – IV Final/Mid Examination**

#### **Digital Electronics – II (Phy-21406)**

Q.1 Twenty MCQ's as at the end of each chapter of the text book or as are PPT's (10 in mid-semester exam) 20/10

Q.2 Seven Short Answer Questions in the Final Exam (5 in mid-semester exam from; 8,9,11 chapters) 10/15

What are the terminal counts of a 4-bit binary counter in UP & DOWN mode?

Draw the block diagram of a 4-bit parallel in– serial out shift register.

Describe the difference between RAM and mask ROM.

List the types of read-only memories.

Draw the logic diagram of 4-bit Johnson counter.

What is meant by the bidirectional shift counter?

Describe refresh operation in DRAM.

Name the three basic busses in a computer and briefly describe their function.

Name different methods of analog to digital conversion.

Calculate the resolution of an 8-bit DAC?

Draw a simple block diagram of an embedded system.

List some common characteristics of an embedded system.

#### Subjective Questions

Mid 5x2=10/Final 5x3=15

Write a note on flash memories.

Describe the Binary-Weighted Input Digital-to-Analog conversion.

Write a brief note on a microcomputer.

Draw a 4-bit binary synchronous counter and its timing diagram. Briefly describe its working.

Write a note on Static Random Access Memory.

Write a note on Last In-First Out (LEFO) Memories or First In-First Out (FIFO) Memories.