

Day : Friday
Date : 16/11/2018

W-2018-3025

Time 02.30 PM TO 05.30 PM
Max. Marks: 80

N.B.

- 1) Q.1 and Q.5 are **COMPULSORY**. Out of the remaining attempt any **TWO** questions from each Section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.
- 4) Assume suitable data if necessary.

SECTION – I

- Q.1**
- a) Explain IEC and BS standards in detail. (05)
 - b) Explain Data Section from RTL sequence. (05)
 - c) Write the properties of LP error filter. (04)
- Q.2**
- a) What is necessity of Gyrator? Explain in detail the structure and working of Gyrator? (07)
 - b) Explain : i) AR process ii) MA process iii) ARMA process (06)
- Q.3**
- a) Explain MTTF, MTB and AQL. (07)
 - b) Explain in detail IEEE standards in details. (06)
- Q.4**
- a) Derive solution of normal equations with Levinson-Durbin algorithm. (07)
 - b) Explain in detail the development of data and control sections from a RTC sequence. (06)

SECTION – II

- Q.5**
- a) What is need for Testing? (05)
 - b) Explain the concept of Emulator. (05)
 - c) Differentiate between Melay and Moore state machines. (04)
- Q.6**
- a) What are the selection criteria for microcontroller employed in standard PLC system hardware? (07)
 - b) Explain recommended steps in software development of a real time microprocessor or microcontroller based product. (06)
- Q.7**
- a) What is Testability? Explain Ad-Hoc design for testability techniques? (07)
 - b) Explain Bridging faults and Intermittent faults in VLSI. (06)
- Q.8**
- a) Explain software design flow on the basis of top-down and bottom up approaches? (07)
 - b) Write a short note on assembler and simulator. (06)

* * *