

SUBJECT : ELECTRONIC SYSTEM DESIGN

Day : Thursday
Date : 30/05/2019

Time 02.30 PM TO 05.30 PM
Max. Marks : 80

S-2019-3290

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) Answer to both the sections should be written in SAME Answer book.
- 4) Assume suitable data if necessary.

SECTION – I

- Q.1** a) Explain FCC standards in detail. (05)
b) Describe bath tub curves related to reliability of electronic circuit. (05)
c) Explain the properties of LP error filters. (04)
- Q.2** a) Explain AQL and accelerated testing in detail. (07)
b) Explain IEEE standard development process. (06)
- Q.3** a) Describe positive and negative feedback topology of Biquad circuit. (07)
b) Write a note on FDNR with diagram. (06)
- Q.4** a) Explain in detail forward and backward linear prediction. (07)
b) Explain in Wiener filter and write its significance. (06)

SECTION – II

- Q.5** a) Explain Dynamic and static faults. (05)
b) Explain role of simulator and simulation tools in electronic system design. (05)
c) Define controllability and observability. (04)
- Q.6** a) What is role of ladder diagram and explain use of ladder diagram with suitable example. (07)
b) Explain in detail the role of Emulator in microcontroller design. (06)
- Q.7** a) Explain Bridging faults and intermittent faults with suitable example. (07)
b) What is meaning of physical fault and logical fault? Explain with proper examples. (06)
- Q.8** a) Explain software design flow on the basis of top-down and bottom up approaches. (07)
b) Explain use of assembler and cross compiler in developing software. (06)

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