

B.TECH SEM – VIII (2007 COURSE) (ELECTRONICS ENGG.) :

SUMMER - 2018

SUBJECT : ELECTRONIC SYSTEM DESIGN

Day : **Saturday**
Date : **09/06/2018**

S-2018-2887

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 ISO-9000 standards and its ports. (05)
- b) Write short note on FDNR. (05)
- c) What do you mean by AQL? (04)
- Q.2 a) Define reliability. What factors affecting the reliability of electronic equipments and system? (07)
- b) Explain MTBF, MTTF and AQL. (06)
- Q.3 a) Explain in detail the development of data and control section from RTL sequence. (07)
- b) Describe positive and negative feedback topology of Biquad circuits. (06)
- Q.4 a) Explain: i) AR process ii) MR process iii) ARMA process. (07)
- b) Explain wiener filter design and write its significance. (06)

SECTION – II

- Q.5 a) Explain selection of components in microcontroller design. (05)
- b) Explain single stuck fault models with example. (05)
- c) Explain terms: i) Fault equivalence ii) Multiple stuck- Fault model. (04)
- Q.6 a) Explain recommended steps in software development of a real time microprocessor or microcontroller based product. (07)
- b) Explain role of emulator in microcontroller design. (06)
- Q.7 a) Explain the terms with suitable examples i) Non feedback bridging faults. ii) Feedback bridging faults. (07)
- b) Explain design flow in software testing. (06)
- Q.8 a) Draw and explain the simplified block diagram of In-circuit emulator and its important features. (07)
- b) Write short note on simulator and simulation tools. (06)

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