



C14-EC-603

4737

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL—2017

DECE—SIXTH SEMESTER EXAMINATION

ELECTRONIC PRODUCT DESIGN AND QUALITY
ASSURANCE

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

Instructions : (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. Draw bath tub curve and label the parts.
2. List different types of power supply protection devices.
3. Define decoupling.
4. Define cross talk.
5. List the applications of logic analyzer.
6. State the uses of different types of analysis.
7. Define vibration testing.
8. What is temperature cycling?
9. List the important rules for preparing effective document.
10. Write a short note on service manual.

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PART—B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 11.** Explain the concept of product development with a block diagram.
- 12.** Explain shielding and guarding techniques.
- 13.** Explain the layout considerations for mixed signal circuits.
- 14.** Explain EMI reduction methods in PCB design.
- 15.** Explain the use of software tools for simulation and testing.
- 16.** (a) Write a short note on random testing. 5
(b) Write a short note on environmental testing. 5
- 17.** Explain temperature extreme testing for linear and step stress profiles.
- 18.** Explain assembly and fabrication related documentation laminate grade.

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