



C14-EC-603

**4737**

**BOARD DIPLOMA EXAMINATION, (C-14)**  
**OCT/NOV—2018**  
**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. Give the classification of an electronic product.
2. Define noise reduction.
3. List the important properties of laminates.
4. Define parasitic capacitance.
5. List the applications of logic analyzer.
6. List different software tools for simulation and testing.
7. Define product testing.
8. What is temperature extreme testing?
9. List different types of documentation.
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.** (a) Explain R & D prototype assessment of reliability. 6

(b) Briefly explain the quality considerations. 4

**12.** Explain the concept of ergonomic and aesthetic considerations of pilot production.

**13.** Explain the general layout considerations of analog and digital circuits.

**14.** Explain EMI reduction methods in PCB design.

**15.** Explain the use of digital storage oscilloscope in testing.

**16.** (a) Write a short note on dry heat testing. 5

(b) Write a short note on vibration testing. 5

**17.** Explain UL and CE certification of industrial electronic products.

**18.** Explain product documentation bill of materials.

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