

4737

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL-2019

DECE - SIXTH SEMESTER EXAMINATION

ELECTRONIC PRODUCT DESIGN & QUALITY ASSURANCE

Time: 3 Hours]

[Max. Marks : 80

PART - A

3x10=30M

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

- 1) Give classification of an Electronic product.
- 2) List the different types of Shielding and Guarding techniques.
- 3) Define Decoupling.
- 4) Define parasitic Inductance.
- 5) List the performance specifications of mixed signal oscilloscope.
- 6) List different Software tools for simulation and testing.
- 7) Define product testing
- 8) What is temperature cycling?
- 9) Define Documentation.
- 10) Define test manual.

PART-B

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5x10=50M

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

- 11) Explain the factors for reliability of an Equipment.
- 12) Explain the concept of Ergonomic and Aesthetic considerations of Pilot Production.
- 13) (a) Explain the Recommendations for decoupling and by passing. 5M
- (b) Explain key routing aspects for better decoupling. 5M
- 14) Describe the component mounting considerations of a PCB.
- 15) Explain the use of Digital Storage Oscilloscope in testing.
- 16) (a) Write a short note on Random testing. 5M
- (b) Write a short note on Environmental testing. 5M
- 17) Explain EMI/EMC compliance testing standardization.
- 18) Explain PCB documentation.

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