

4737

BOARD DIPLOMA EXAMINATION, (C-14)

JUNE-2019

DECE - SIXTH SEMESTER EXAMINATION

ELECTRONIC PRODUCT DESIGN & QUALITY ASSURANCE

Time:3 Hours

Max.Marks:80

PART-A

10x3=30M

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

- 1) List the sequence of activities in the development of a new product.
- 2) List reasons for failure of a product.
- 3) Define cross talk in a PCB.
- 4) Define parasitic resistance.
- 5) List the factors affecting signal integrity of an equipment.
- 6) What is use of transient analysis in hardware testing?
- 7) Define vibration testing.
- 8) What is the importance of temperature extreme testing?
- 9) Define user requirements document (URD)
- 10) List different information present on a PCB documentation.

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PART-B

5x10=50M

Instructions: 1) Answer any five questions
2) Each question carries ten marks.
3) The answer should be comprehensive and the criteria for valuation are the content but not the length of the answer

- 11) Explain the factors for reliability of equipment.
- 12) (a) Explain grounding technique for noise reduction. 5M
(b) Explain the estimation of power supply requirements. 5M
- 13) Explain the PCB layout considerations for analog and digital circuits.
- 14) Explain IC packages for discrete devices in PCB.
- 15) Explain the use of Digital storage oscilloscope in hardware testing.
- 16) Explain (a) Dry heat testing. (B) Random testing.
- 17) Explain UL and CE certification of industrial Electronic products.
- 18) Explain the different types of documentation.

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