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## **B.E./Insem. - 559**

## **B.E.** (E/TC) (Semester - I)

**ELECTRONIC PRODUCT DESIGN** (2012 Pattern) (Elective -II) Time: 1 Hour] [Max. Marks: 30] Instructions to the candidates: Answer Q.1 or Q.2, Q.3 or Q.4, Q5 or Q.6. *2*) Figures to the right indicate full marks. Neat diagrams must be drawn wherever necessary. *3*) Assume suitable data if required. *4*) Use of non-programmable calculator is allowed. *5*) Explain the following terms -[6] **Q1**) a) Cognition i) Reliability ii) Ergonomics iii) Quality iv) b) Explain the importance of vibration & shock test to be carried out on an electronic product with suitable example. [4] OR **Q2**) a) Explain the concept of user-centered design. [6] What is the need of grounding? Briefly explain different types of grounding.[4] b) What is prototyping? Discuss different types of prototyping indicating **Q3**) a) their advantages and drawbacks. [6] Explain what do you understand by the term design reviews. [4] b) OR

Explain the design process of any one electronic product using neat **Q4**) a) block diagram. Discuss the methods of module debug & test. [4] b) State the features of good programming. **[4] Q5**) a) Explain the various phases of bug introduction & common bugs present b) in software. [6] OR Explain the term user interface wrt to software. **Q6**) a) **[4]** Discuss any two with the help of neat diagram/schematic. [6] b) Structured programming i) Coupling & cohension ii)

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Documentation for software

iii)