

Total No. of Questions : 8]

SEAT No. :

**P3963**

**[5561]-658**

[Total No. of Pages : 2

**B. E. (Electronics & Tele Communication)  
ELECTRONIC PRODUCT DESIGN  
(2015 Pattern) (Elective-II) (Semester - I)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Answers the Q. 1 or Q. 2, Q. 3 or Q. 4, Q. 5 or Q. 6, Q.7 or Q.8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right side indicate full marks.*
- 4) *Use of calculator is allowed.*
- 5) *Assume suitable data if necessary.*

- Q1) a)** Write a short note on following: **[12]**
- i) Cognition
  - ii) Safety
  - iii) Grounding
- b) Explain in detail system partitioning. **[4]**
- c) Discuss in brief about risk management in software testing. **[4]**

OR

- Q2) a)** Write short notes on: **[12]**
- i) Black box test.
  - ii) White box test.
  - iii) Gray box test.
- b) Discuss in detail user centered design. **[4]**
- c) Explain in detail Ergonomics. **[4]**

- Q3) a)** Explain models, metrics and software limitations. **[8]**
- b) What are the different types of PCB? Explain one. **[5]**
- c) Explain grounding methodologies. **[5]**

OR

*P.T.O.*

- Q4)** a) Discuss about PCB partitioning Design Rules for EMC improvement. [8]  
b) Explain waterfall model of software development. [5]  
c) What is Defect/Bug? What is defect life cycle? [5]

- Q5)** a) Explain EMI & EMC issues in detail. [8]  
b) Differentiate between active components & passive components. [4]  
c) Explain techniques for Troubleshooting. [4]

OR

- Q6)** a) Explain Analog-Digital conversion in detail. [8]  
b) Define debugging process and explain steps of debugging. [8]

- Q7)** a) Define documentation & Explain the need of documentation. [8]  
b) Write a short note on following: [8]  
i) Records  
ii) Accountability

OR

- Q8)** a) Discuss in detail visual techniques with example. [8]  
b) Write short note on any two of the following: [8]  
i) Liability  
ii) Bill of material

■ ■ ■