



**NBX-003-027604** Seat No. \_\_\_\_\_

**M. Sc. (ECI) (Sem. IV) (CBCS) Examination**

**April / May - 2017**

**Paper - 24 : Electronic Techniques**

*(New Course)*

**Faculty Code : 003**

**Subject Code : 027604**

Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 70

**Instructions :**

- (1) All questions are compulsory.
- (2) Figures on right hand side indicate marks.

**1** Answer the following : (Any Seven). **14**

1. Write an equation of uniform intensity and flux density.
2. Draw a basic transformer diagram.
3. Write a definition of Logic analyzer and write its types.
4. What is a meaning of Emulation? Write its definition.
5. Write features of typical PCICE.
6. Write about type of substrate with its name.
7. Which types of methods are used to apply adhesives?
8. What is a contain of menu bar in protel?
9. Which types of icon are available in tool bar?
10. What is the typical value of permeability of free space ( $\mu_0$ )?

**2** Answer the Following : (Any Two) **14**

1. Write a note on induced EMF and Eddy current. 7
2. Write about transformer polarities and Dot convention. 7
3. Write a note on volt-sec product. 7

**3** Answer the Following : **14**

1. Write steps of assembly process in SMD. 5
2. Write a note on fluxes in SMD. 5
3. Write about staking factor. 4

**OR**

- 3** Answer the Following : **14**
1. Explain construction of Logic Analyzer. **7**
  2. Write a note on Assembly techniques. **7**
- 4** Answer the following : **14**
1. Write a note on solder joint consideration. **7**
  2. Write a note on Logic Analyzer with its working principle. **7**
- 5** Answer the following (Any two). **14**
1. Write a note on Window utilization factor. **7**
  2. Describe an ICE with its configuration. **7**
  3. Write a note on Surface Mount Technology. **7**
  4. Describe a preparation of document creation in Protel. **7**
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