

Subject Code: ENG001**Date: 23/05/2018****Subject Name: ENGINEERING SYSTEM****Time: 02:30 PM to 5:00 PM****Total Marks: 70****Instructions:**

- 1. Attempt any five questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1 (a)** What is fuse? How does it provide the protection? Discuss the properties of fuse wire. **07**
- (b)** Write the unit of current, inductance, capacitance, resistance and potential difference. What is the value of form factor? **07**
- Q.2 (a)** What is transducer? Explain the different types of transducers. **07**
- (b)** Explain feedback phenomenon in detail with necessary block diagram. **07**
- Q.3 (a)** Explain with neat sketch the working of a vapor compression refrigeration system. **07**
- (b)** Enlist the selection criteria for construction of bridge site. **07**
- Q.4 (a)** What is earthing? Explain the importance of earthing. **07**
- (b)** What is microcontroller? What is the role of microcontroller in home automation system? **07**
- Q.5 (a)** Draw the communication system block diagram and explain each block in detail. **07**
- (b)** Briefly discuss various methods which can be used for determining number of light fittings in room. **07**
- Q.6 (a)** What is Refrigerant? Discuss properties of good refrigerant. **07**
- (b)** List various bridges based on super structure and draw sketch of balanced cantilever bridge. **07**
- Q.7 (a)** Draw and explain the architecture of the “smart home” control system. **07**
- (b)** Explain illumination with its unit. Describe the Law of illumination. **07**
