

**2017**

**M.Sc.**

**3rd Semester Examination**

**ELECTRONICS**

**PAPER—ELC-304**

*Full Marks : 50*

*Time : 2 Hours*

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**(History of Electromagnetic and Communication)**

Answer Q. No. 1 and any three questions from the rest.

1. (a) What is Coherer ?
- (b) What is Telegraphy ?
- (c) What is Wheat Stone's Bridge ?

*(Turn Over)*

- (d) What are base stations and Mobile switching centres ?
- (e) Name the device on which J.C. Bose took patent and with whom he shared the patent. 2×5
- 2.** (a) Describe the concept of frequency reuse.
- (b) What are trunking and grade of service ?
- (c) What is Lands off ? 3+4+3
- 3.** (a) How did J.C. Bose help in developing wireless communication system ?
- (b) Write short note on the J.C. Bose experiment on the effect of EM radiation on the plant body. 5+5
- 4.** (a) Describe the Galvani's experiment on the effect of electricity animal body.
- (b) How chemical leatleay was invented from Galvani's experiment ? 6+4
- 5.** (a) Write short note on :
- (i) Joseph Fouriea.
- (ii) Michel Faraday. 5+5

6. (a) Why coding is necessary in Electrical Telegraphy ?
- (b) What is Marse code ?
- (c) Describe the Gauss and Weber's experiment on electromagnetic telegraphy. 2+3+5

***[ Internal Assessment : 10 Marks ]***

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