



**HDF-003-1271002**

Seat No. \_\_\_\_\_

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

**November / December – 2017**

**Fundamental of Electronics : Paper - II**

**(New Syllabus)**

**Faculty Code : 003**

**Subject Code : 1271002**

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

[Total Marks : 70

- Instructions :**
- (1) All questions carry equal marks.
  - (2) Figures on right hand side indicate marks.

- 1 Answer the following (Any Seven) : 14
- (1) Write a definition of conservation of charge.
  - (2) What is amount of charge contained in One Coulomb (1C) ?
  - (3) Write an equation of Total resistance of series combination.
  - (4) Write an equation of vector form of coulomb's law.
  - (5) Write a definition of potential difference.
  - (6) How to produce positive and negative charge ?
  - (7) Write an equation of electric field strength.
  - (8) Which equation is used to measure cross-sectional area of conductor ?
  - (9) Draw a symbol of Resistor and capacitor.
  - (10) Write a definition of Power.

<b>2</b>	Answer the Following : (Any Two)	<b>14</b>
	(1) Write about the basic property of the charge.	<b>7</b>
	(2) Write a note on Volt.	<b>7</b>
	(3) Define and explain Power.	<b>7</b>
<b>3</b>	Answer the Following :	<b>14</b>
	(1) Define Intensity of electric field.	<b>5</b>
	(2) What is resistance ? Discuss resistance of conductor.	<b>5</b>
	(3) Write about a series and parallel combination of inductor.	<b>4</b>
	<b>OR</b>	
<b>3</b>	Answer the Following :	<b>14</b>
	(1) Define Intensity of electric field.	<b>7</b>
	(2) Write a note on capacitance.	<b>7</b>
<b>4</b>	Answer the following :	<b>14</b>
	(1) Write and discuss ohm's law.	<b>7</b>
	(2) Write a note parallel combination of capacitor.	<b>7</b>
<b>5</b>	Answer the following : (Any two)	<b>14</b>
	(1) Discuss the coulomb's law.	<b>7</b>
	(2) Represent potential difference as negative of line integral.	<b>7</b>
	(3) Write on the series combination of resistances.	<b>7</b>
	(4) Write about the capacitance of a parallel plate capacitor.	<b>7</b>