

Roll No. ....

**24004**

**B. Tech. 1st Sem. (Common for All  
Branches) Examination – December, 2018**

**BASICS OF ELECTRONICS**

**Paper : ECE-101-F**

***Time : Three Hours ]***

***[ Maximum Marks : 100***

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

***Note : Attempt five questions in all, selecting one question from each Section. Question No. 1 is compulsory.***

**1. Write short notes on the following : 20**

(a) Amplifiers

(b) LED

(c) UPS

(d) CRD

### SECTION – A

2. (a) Explain P-N junction is the breakdown region. 10  
(b) Describe terminal characteristics of junction diode. 10
3. (a) Describe Frequency response of RC coupled Amplifier. 10  
(b) Discuss working of Cascaded Amplifier. 10

### SECTION – B

4. (a) What is criteria of ascillations ? Explain. 10  
(b) Explain working of SMPS. 10
5. Explain different characteristics and applications of op-amps. 20

### SECTION – C

6. (a) Explain SR and J-K flip flop. 10  
(b) Derive various gates using universal gates. 10
7. (a) Describe working of function generator. 10  
(b) Compare analog and digital multimeter. 10

### SECTION – D

8. Describe construction and working of LED in detail.20
9. (a) What is dot matrix display. Explain. 10  
(b) What is seven segment display. Explain. 10
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