

**B.Tech. DEGREE EXAMINATION, MAY - 2015**

**(Examination at the end of Third Year)**

**ELECTRICALS AND ELECTRONICS**

**Paper - II : Electronic Circuits - II**

**Time : 3 Hours**

**Maximum Marks : 75**

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*Answer question No.1 compulsory*

*Answer ONE question from each unit*

- 1)**
- a) What is Second Harmonic distortion?
  - b) What are advantages of Class B Push Pull Amplifier?
  - c) List the characteristics of negative feedback amplifier?
  - d) Define Barkhausen criterion.
  - e) What are characteristics of tuned amplifiers?
  - f) Define load regulation and line regulation.
  - g) What is multivibrator describe the types of multivibrator?
  - h) List out the advantages and disadvantages of SMPS.
  - i) What is Sweep Circuit?
  - j) Classify feedback amplifiers?
  - k) What are advantages of colpitt's Oscillators?

**UNIT – I**

- 2)**
- a) Classify power amplifiers? Describe its applications.
  - b) Find efficiency and power dissipation of class B Push Pull amplifier.

OR

- 3) a) Explain the operation of complementary – symmetry class A transformer Coupled class A power amplifier.
- b) Describe operation chopper amplifiers with help of circuit diagram.

### **UNIT - II**

- 4) a) Describe the general characteristics of negative feed back amplifiers.
- b) Derive an expression of Input Resistance and output Resistance of voltage-shunt feedback amplifier.

OR

- 5) a) Explain frequency stability of oscillators.
- b) Derive an expression for frequency of oscillation of Wien's bridge oscillator.

### **UNIT - III**

- 6) a) Explain the operation of stagger tuned amplifier with help of circuit diagram and frequency response.
- b) Describe the operation Monostable multivibrator.

OR

- 7) a) What is class C amplifier? Explain.
- b) Describe operation of the Schmitt circuit with neat sketch.

### **UNIT - IV**

- 8) a) Explain different protection techniques for voltage regulators.
- b) Describe operation of shunt voltage regulator.

OR

- 9) a) What is the need for a trapezoidal wave form for linearity correction in sweep circuits? Explain.
- b) Write a short on the following :

i) UPS

ii) SMPS

