Dept. of Computer Science and engineering

Class Test 2 APEE1131 (Electrical Circuits and Electronics)-2017

Full Marks: 30 Time: 1 (One) Hour

NB: Answer any Three Questions.

1. Discuss the architecture of a bipolar junction transistor with diagram. Draw the circuit diagram and explain the operation of a transistor as switch.
2. Draw the circuit diagram of emitter bias and explain its operation. Also draw the load line and mark the q-point.
3. Define class A, class B and class C amplifier. Discuss the operation of Colpitts oscillator and derive the expression for frequency of oscillation.
4. Draw the circuit diagram of an astable multivibrator and discuss its operation.
5. Discuss how an operational amplifier acts as an integrator and a differentiator.

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