Hall Ticket Number :										

R-14

Code: 4G331

II B.Tech. I Semester Supplementary Examinations August 2021

Electronic Circuits

(Electronics and Communication Engineering)

Max. Marks: 70 Time: 3 Hours

Answer *any five* full questions by choosing one question from each unit (5x14 = 70 Marks)

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UNIT–I

1. a) Compare the input impedance, output impedance and voltage gain of CE, CB and CC configurations. Why CE amplifiers are widely used? 6M

   b) Draw the circuit diagram of a two stage RC coupled amplifier. Explain the need of using multi-stage amplifiers 8M

OR

2. a) Draw and explain the circuit of cascaded amplifier and mention the advantages 7M

   b) Draw the equivalent circuit of a CE amplifier using Millers theorem. What is the upper 3-dB frequency of such circuit? 7M

UNIT–II

3. Explain the role of coupling capacitors and Bypass capacitors in a RC Coupled Amplifier Circuit. 14M

OR

4. Draw the hybrid –pi model of BJT. Explain the circuit elements in this model. 14M

UNIT–III

5. a) Explain the advantages of negative feedback over positive feedback. 7M

   b) Briefly discuss about the effect of feedback on amplifier bandwidth 7M

OR

6. a) Explain the concept of feedback with block diagram 6M

   b) Write about Classification of feedback amplifiers, 8M

UNIT–IV

7. a) With neat diagram explain about amplitude stability of oscillators. 8M

   b) Distinguish between various oscillators. 6M

OR

8. Why +ve feedback is generally used in oscillator circuits? Derive the oscillation frequency of a RC Phase Shift Oscillator. 14M

UNIT–V

9. a) Classify the power amplifiers. 7M

   b) Explain crossover distortion in Class B power amplifier 7M

OR

10. Explain in detail about complementary symmetry push pull amplifier. 14M

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