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181031/171031/
121031/31031

3rd Sem. / Electronics & Communication Engg.
Subject : Electronic Devices & Circuits / Analog Eltx. - II

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Objective type questions. All questions are compulsory (10x1=10)

(Course Outcome/CO)

Q.1 RC Coupling is used for _____ amplification. (CO-304.1)

Q.2 The last stage of audio amplifier is called as _____ (CO-304.1)

Q.3 Class _____ power amplifier has highest collector efficiency. (CO-304.1)

Q.4 The negative feedback in amplifier increase _____ of its voltage gain. (CO-304.2)

Q.5 In a transistor oscillator, the active device is _____. (CO-304.2)

Q.6 Emitter follower is used for _____. (CO-304.2)

Q.7 Q factor of coil is _____ (CO-304.3)

Q.8 IC 555 timer has _____ Number of pin (CO-304.3)

Q.9 An ideal Op-Amp has _____ Input impedance. (CO-304.4)

Q.10 The output of 7805 IC and 7905 IC voltage regulator is _____&_____ volt respectively. (CO-304.4)

SECTION-B

Note: Very Short answer type questions. Attempt any ten parts out of twelve. 10x2=20

Q.11 Why the gain of amplifier is calculated in decibels? (CO-304.1)

Q.12 What do you mean by frequency response curve? (CO-304.1)

Q.13 What is the overall gain of multistage amplifier? (CO-304.1)

Q.14 List two advantages and disadvantages of push pull amplifier? (CO-304.1)

Q.15 What are the advantages of feedback amplifier? (CO-304.2)

Q.16 What is difference between oscillator and alternator? (CO-304.2)

Q.17 Draw the block diagram of an oscillator? (CO-304.2)

Q.18 Why RLC parallel circuit at resonance is also called as rejector circuit. (CO-304.2)

Q.19 What is a clipping circuit? And also name its type. (CO-304.3)

Q.20 What is an A-stable multi-vibrator? (CO-304.3)

Q.21 Define slew rate. (CO-304.4)

Q.22 How Op-Amp is used as inverting amplifier? (CO-304.4)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x5=40)

Q.23 Give the classification of amplifier depending upon various factors. (CO-304.1)

Q.24 What are the advantages of push pull amplifier? (CO-304.1)

Q.25 What is input offset voltage of an op-amp? (CO-304.4)

Q.26 Describe working of emitter follower and its application. (CO-304.2)

Q.27 Explain piezoelectric effect. (CO-304.2)

Q.28 What is the condition for resonance in tuned amplifier? (CO-304.2)

Q.29 How can we use op-amp as integrator? (CO-304.4)

Q.30 Draw and explain the block diagram of IC 555 timer. (CO-304.3)

Q.31 Explain the working of fixe voltage regulator IC 7805. (CO-304.3)

Q.32 What are the application of UPS? (CO-304.4)

SECTION-D

Note: Long answer type questions. Attempt any three questions out of four. (3x10=30)

Q.33 Explain working of SMPS with circuit diagram (CO-304.4)

Q.34 What is clipping? Explain its types. (CO-304.3)

Q.35 Explain with the help of diagram working of wein bridge amplifier. (CO-304.2)

Q.36 Explain push pull amplifier with diagram and why it is called push pull? (CO-304.1)

(**Note:** Course outcome/CO is for office use only)

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121031/031031

3rd Sem. / ECE / EE / MT / PE / ME

Subject : Analog Electronics - II

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Define decibel.

b) For RF frequencies, ____ coupling is used.

c) Efficiency of class B amplifier is _____ .

d) What is use of heat sink.

e) Push pull amplifiers remove ____ distortion.

f) Gain of emitter follower is _____.

g) Define feedback.

h) With negative feedback, distortion in amplifier _____ (increases/decreases).

i) Which type of feedback is used in oscillators.

j) For oscillations the phase shift between output & input should be _____ .

k) Define resonance.

l) What is impendence of series resonant circuit.

m) Draw a ramp wave.

n) The output of differentiator circuit is _____

o) Define clipper circuit.

p) Draw pin diagram of 7805.

q) Expand CMRR.

r) Define line resolution.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) What is importance of impedance matching in amplifiers.

ii) What is cascading of amplifiers.

iii) Why class A amplifiers are not used.

iv) How negative feedback affects stability of amplifier.

v) Draw different feedback topologies.

vi) How can we make an amplifier into emitter follower circuit.

vii) Explain piezo elctric effect.

viii) Draw & explain colpitts oscillator.

ix) Draw a single tuned amplifier & its frequency response.

x) Draw a tank circuit, derive its condition of resonance.

xi) Draw & explain clamper circuit.

xii) Show how IC 555 works as Monostable multivibrator.

xiii) What are different characteristics of an ideal of Amp.

xiv) Draw & explain schmitt trigger circuit.

xv) Draw block diagram of D.C. regulated power supply.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Draw and explain complementary symmetry push pull amplifier.

Q.4 Explain in detail RC coupling in amplifiers.

Q.5 Draw a neat diagram of wein's bridge oscillator, explain its working in detail.

Q.6 Draw circuit diagram of bistable multivibrator, explain its operation.

Q.7 Write short notes on following.

i) op Amp as adder, subtractor

ii) SMPS

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121031/031301

3rd Sem. / ECE / Med Eltx.

Subject : Analog Electronics-ll

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Define Multistage amplifier.

b) Define Impedance matching.

c) Draw input/output waveforms for Class 'C' power amplifier.

d) Efficiency of class C amplifier is _____ than that of class A amplifier.

e) What is the function of heat sink?

f) Define heat dissipation curve.

g) What is frequency response curve?

h) Positive feedback is used in _____.

i) Define sinusoidal Oscillators.

j) Name any two essential components of oscillator.

k) Negative feedback is used in Oscillator. (True/ False)

l) Explain Barkhausen criteria for oscillations.

m) Define bandwidth of resonant circuit.

n) Draw any two wave shapes.

o) Define bistable multivibrator.

p) Expand PSRR.

q) Which IC is used as voltage regulator?

r) Explain line regulation.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) What is the gain multistage amplifier?

ii) Compare transformer coupled and direct coupled amplifier.

iii) What is importance of impedance matching in amplifiers?

iv) Draw the block diagram of IC 555.

v) Explain working of single ended power amplifier.

vi) Draw diagram of RC coupled amplifier without emitter bypass capacitor.

vii) Explain effect of negative feedback on stability.

viii) Explain block diagram of sinusoidal oscillator.

ix) Explain the tuned collector oscillator.

x) Write a short note on "Parallel resonant circuit".

xi) Write short note on "RL integrating circuits".

xii) Describe the operation of transistor as switch.

xiii) Write applications of astable multivibrators.

xiv) What are characteristics of ideal operational amplifier?

xv) Explain concept of DC power supply.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Explain diagram of Complementary symmetry Push Pull amplifier. What are advantages of complementary push pull amplifiers.

Q.4 What is effect of negative feedback on distortion of an amplifier? Explain in detail.

Q.5 Explain double tuned voltage amplifier and their frequency response characteristics.

Q.6 What is an operational amplifier? Explain basic operational amplifier as scale changer and Integrator.

Q.7 Explain diagram and working of SMPS.

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121031/031301

3rd Sem. / ECE / Med Eltx.

Subject : Analog Electronics-ll

Time : 3 Hrs. M.M. : 100

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