

No. of Printed Pages : 4
Roll No.

221034

3rd Sem / ECE, ECE (For Speech and Hearing Impaired)

Subject : Electronic Devices and Circuits - II

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 The frequency response of transformer coupling is
a) good b) very good
c) poor d) none
- Q.2 Which coupling device is used in RC coupled amplifier
a) inductor b) capacitor
c) transformer d) diode
- Q.3 The class A power amplifiers have _____
a) less power b) less efficiency
c) less distortion d) all of the above
- Q.4 How many types of feedback are there
a) 1 b) 2
c) 3 d) 4

(1)

221034

Q.5 Which of the following oscillator cannot be used in low frequency oscillations?

- a) colpitts b) wein bridge
c) RC phase shift d) both a & b

Q.6 Bistable multivibrator has _____ stable states.

- a) 1 b) 2
c) 3 d) 0

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 In the initial stage of multistage amplifier, RC coupled amplifier is used. (True/False)
- Q.8 _____ amplifier is used to increase the power level of weak signal.
- Q.9 Expand PSRR.
- Q.10 _____ feedback is used in amplifiers. (Positive /Negative)
- Q.11 IC 741 has _____ number of pins.
- Q.12 Name any two types of LC oscillator.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 What is multistage amplifier? How we can calculate overall gain of multistage amplifier.

(2)

221034

- Q.14 Explain the importance of impedance matching in amplifiers.
- Q.15 Write a short note on class C amplifier
- Q.16 Explain the working of double tuned voltage amplifier.
- Q.17 Explain the effect of negative feedback on distortion and bandwidth of an amplifier.
- Q.18 Explain emitter follower with circuit diagram.
- Q.19 List the applications of operational amplifier.
- Q.20 How transistor work as a switch.
- Q.21 Draw and explain the pin diagram of 741 IC
- Q.22 Write a short note on monostable multivibrator.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain transformer coupled amplifier with its frequency response and advantages.
- Q.24 Explain the construction and working of class B push pull amplifier with its advantages.
- Q.25 Explain the working of crystal oscillator with the help of circuit diagram. Also write its advantages.

No. of Printed Pages : 4

Roll No.

221034

**3rd Sem. / ECE, ECE
(For Speech and Hearing Impaired)**

Subject : Electronic Devices and Circuits-II

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 The final stage of an amplifier uses CO-1

- a) RC Coupling
- b) Transformer Coupling
- c) Direct Coupling
- d) All of above

Q.2 Heat sink is used in power amplifier circuits. CO-2

- a) To increase the output power
- b) To reduce the heat losses in the transistor
- c) to increases the voltage gain of the power amplifier
- d) To increases the collector dissipation rating of the transistor

(1)

221034

Q.3 Emitter follower is used for CO-3

- a) Current Gain
- b) Impedance matching
- c) Voltage Gain
- d) None of the above

Q.4 RC phase shift circuit produces a phase shift of CO-4

- a) 180 b) 360
- c) 90 d) 0

Q.5 IC 555 timer can be used as _____ CO-5

- a) A stable multi vibrator
- b) Mono stable multi vibrator
- c) Either a or b
- d) None of the above

Q.6 An ideal operational amplifier has CO-5

- a) Infinite Voltage Gain
- b) Infinite Input Resistance
- c) Zero output Resistance
- d) All of the above

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Gain of multistage amplifier is? CO-1

(2)

221034

- Q.8 What is collector efficiency? CO-2
 Q.9 Positive feedback is also called? CO-3
 Q.10 Expand CMRR. CO-5
 Q.11 Astable multivibrator has _____ stable state. CO-5
 Q.12 Write any advantages of negative feedback. CO-4

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Explain the importance of impedance matching in an amplifier. CO-2
 Q.14 Draw the circuit diagram of transformer coupled amplifier and explain its working. CO-1
 Q.15 What is feedback? Explain the types of feedback. CO-3
 Q.16 Differentiate between Damped and Undamped oscillation. CO-4
 Q.17 What are multivibrator? State the principle on which it works. CO-5
 Q.18 Write the Application of OP-Amplifier. CO-5
 Q.19 Explain class B power amplifier. CO-2
 Q.20 What are the advantages of tuned amplifier? CO-4
 Q.21 Explain the terms:- CO-1
 a) Bandwidth
 b) Frequency response

- Q.22 What are the practical applications of emitter follower? CO-4

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Draw the circuit of wein bridge oscillator and explain its working. CO-4
 Q.24 Explain the push pull amplifier with its neat and clean diagram. CO-1
 Q.25 Draw and explain the pin configuration of IC 741 OP-amplifier. CO-5

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

No. of Printed Pages : 4
Roll No.

221034

3rd Sem / Branch : ECE
Sub.: Electronic Devices and Circuits - II

Time : 3Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 In multi stage amplifier capacitor is used (CO1)
- a) To match impedance
 - b) To couple two stages
 - c) To limit the bandwidth
 - d) To prevent DC mixing with input or output
- Q.2 The push pull circuit must use operation? (CO2)
- a) Class A
 - b) Class C
 - c) Class B
 - d) Class AB
- Q.3 Distortion is an amplifier with negative feedback? (CO3)
- a) Increases
 - b) Decreases
 - c) Does not change
 - d) None of the above
- Q.4 An oscillator requires?
- a) Positive feedback
 - b) Negative feedback

(1)

221034

- c) An amplifier with positive feedback
- d) An amplifier with negative feedback

- Q.5 A tuned circuit uses (CO4)
- a) R-L
 - b) R-C
 - c) L-C
 - d) Purely resistive Element
- Q.6 In a multivibrator circuit (CO5)
- a) Output is continuous
 - b) No feedback is provided
 - c) Negative feedback is provided
 - d) When one transistor is ON & other is OFF.

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 A switch has _____ states? (CO5)
- Q.8 Define slew rate. (CO7)
- Q.9 What is heat sink? (CO2)
- Q.10 What is negative feedback? (CO3)
- Q.11 Write any one difference between colpitts and Hartley oscillator? (CO4)
- Q.12 What is the range of audio frequency signal? (CO1)

(2)

221034

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 What are multi stage amplifier. Explain the need of multi stage amplifier. (CO1)
- Q.14 Write the difference between voltage and power amplifier? (CO2)
- Q.15 What is oscillator. Explain bark hausen criteria for oscillation? (CO4)
- Q.16 Explain the working principal of transistor as a switch? (CO5)
- Q.17 What is emitter follower? Write its application also. (CO2)
- Q.18 Explain the working principle of push pull amplifier? (CO2)
- Q.19 What are operational amplifier? Explain operational amplifier as an inverter. (CO5)
- Q.20 What is Feedback? Explain the basic principle of feedback. (CO3)
- Q.21 Discuss about class A power amplifier with its advantages and disadvantages. (CO2)
- Q.22 How Hartley oscillator generate oscillation? (CO4)

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain RC coupled amplifier with its block diagram and frequency response curve? (CO1)
- Q.24 How a stable multivibrator work? Explain its application also. (CO5)
- Q.25 Explain the terms : (CO5)
- | | |
|--------------|-------------------------|
| a) CMRR | b) PSRR |
| c) Slew Rate | d) Input offset current |

No. of Printed Pages : 4
Roll No.

221034

3rd Sem / ECE / ECE (For speech & hearing Impaired)

Subject:- Electronic Devices and Circuits-II

Time : 3Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 RC coupled amplifiers are used for the amplification of _____

- a) Audio signal b) RF signal
- c) Microwave signal d) None of these

Q.2 Transformer coupling is an example of _____

- a) Direct coupling b) AC coupling
- c) DC coupling d) Impedance coupling

Q.3 With negative feedback, the bandwidth of an amplifier _____

- a) increases b) decreases
- c) becomes zero d) None of the above

(1)

221034

Q.4 An oscillator always needs an amplifier with _____

- a) Negative feedback b) Positive feedback
- c) Both feedback d) LC tank circuit

Q.5 A tuned voltage amplifier is used to amplify signal of _____

- a) low frequency b) medium frequency
- c) high frequency d) None of the above

Q.6 Transistor can be used as _____ for application

- a) switch b) amplifier
- c) inverter d) All the above

SECTION-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Define CMRR.

Q.8 What is negative feedback?

Q.9 What is multistage amplifier?

Q.10 What is voltage amplifier?

(2)

221034

Q.11 What is Astable multivibrator?

Q.12 What is slew rate?

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Explain transistor as a switch.

Q.14 Explain the working of class A amplifier.

Q.15 Explain working of Hartley oscillator.

Q.16 Explain the Barkhausen condition for oscillations.

Q.17 Explain the difference between voltage and power amplifier.

Q.18 Explain working of RC coupled amplifier.

Q.19 Explain pin configuration of IC 711.

Q.20 Explain OP AMP as adder and subtractor.

Q.21 Explain gain of an amplifier.

Q.22 Explain the use of positive feedback.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Explain block diagram of IC555 and its working and applications.

Q.24 Explain push pull amplifier with diagram and its advantages and disadvantages.

Q.25 Explain RC coupled amplifier with emitter bypass capacitor.

No. of Printed Pages : 4
Roll No.

221034

3rd Sem / ECE, ECE (For Speech and Hearing Impaired)

Subject : Electronic Devices and Circuits - II

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 The frequency response of transformer coupling is
a) good b) very good
c) poor d) none
- Q.2 Which coupling device is used in RC coupled amplifier
a) inductor b) capacitor
c) transformer d) diode
- Q.3 The class A power amplifiers have _____
a) less power b) less efficiency
c) less distortion d) all of the above
- Q.4 How many types of feedback are there
a) 1 b) 2
c) 3 d) 4

(1)

221034

Q.5 Which of the following oscillator cannot be used in low frequency oscillations?

- a) colpitts b) wein bridge
c) RC phase shift d) both a & b

Q.6 Bistable multivibrator has _____ stable states.

- a) 1 b) 2
c) 3 d) 0

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 In the initial stage of multistage amplifier, RC coupled amplifier is used. (True/False)
- Q.8 _____ amplifier is used to increase the power level of weak signal.
- Q.9 Expand PSRR.
- Q.10 _____ feedback is used in amplifiers. (Positive /Negative)
- Q.11 IC 741 has _____ number of pins.
- Q.12 Name any two types of LC oscillator.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 What is multistage amplifier? How we can calculate overall gain of multistage amplifier.

(2)

221034

- Q.14 Explain the importance of impedance matching in amplifiers.
- Q.15 Write a short note on class C amplifier
- Q.16 Explain the working of double tuned voltage amplifier.
- Q.17 Explain the effect of negative feedback on distortion and bandwidth of an amplifier.
- Q.18 Explain emitter follower with circuit diagram.
- Q.19 List the applications of operational amplifier.
- Q.20 How transistor work as a switch.
- Q.21 Draw and explain the pin diagram of 741 IC
- Q.22 Write a short note on monostable multivibrator.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain transformer coupled amplifier with its frequency response and advantages.
- Q.24 Explain the construction and working of class B push pull amplifier with its advantages.
- Q.25 Explain the working of crystal oscillator with the help of circuit diagram. Also write its advantages.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain two stage RC coupled amplifier with its frequency response and advantages .
- Q.24 Explain the construction and working of complementary symmetry push pull amplifier with its advantages.
- Q.25 Explain working of operational amplifier as
- a) Adder
 - b) Integrator

No. of Printed Pages : 4

Roll No.

221034/181031/171031

/121031/031031

3rd Sem / ECE, ECE (For Speech and Hearing Impaired), Eltx, Mecatronics, Med. Eltx, Power Eltx, Elect. Eltx. Engg.

Subject : Electronic Devices and Circuits- II/ Electronics Devices and Circuits / Analog Eltx - II

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 The voltage gain in practically expressed in_____
- a) ampere
 - b) db
 - c) volt
 - d) watt
- Q.2 Which power amplifier has highest collector efficiency.
- a) class A
 - b) class B
 - c) class C
 - d) None
- Q.3 The voltage gain of emitter follower is
- a) one
 - b) two
 - c) three
 - d) none

- Q.4 Which of the following is not an LC oscillator?
- a) crystal b) hartley
- c) colpitts d) tuned
- Q.5 Monostable multivibrator has _____ stable states.
- a) 1 b) 2
- c) infinity d) 0
- Q.6 Op-Amp is abbreviated as _____
- a) Operational amplitude
- b) Operational amplifiers
- c) Operand amplifier
- d) none

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 If a three stage amplifier has individual stage gains of 10db, 5db and 10db; then the total gain in db is _____
- Q.8 _____ amplifier is used to increase the voltage level of weak signal.
- Q.9 Expand CMRR.

(2) 221034/181031/171031
/121031/031031

- Q.10 _____ feedback is used in oscillator. (Positive/Negative)
- Q.11 An Ideal op-amp has _____ voltage gain.
- Q.12 555 IC has _____ pins.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 What is the need of multistage amplifier?
- Q.14 Differentiate between voltage and power amplifier.
- Q.15 Write a short note on heat sink.
- Q.16 Explain the working of single tuned voltage amplifier.
- Q.17 Explain the effect of negative feedback on gain and bandwidth of an amplifier.
- Q.18 Explain the working of Hartley oscillator.
- Q.19 Explain the barkhausen criterion for oscillations.
- Q.20 Define slew rate and CMRR.
- Q.21 Draw and explain the working of block diagram of IC 555 Timer.
- Q.22 Write a short note on Astable multivibrator.

(3) 221034/181031/171031
/121031/031031

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Explain two stage RC coupled amplifier with its frequency response and advantages .
- Q.24 Explain the construction and working of complementary symmetry push pull amplifier with its advantages.
- Q.25 Explain working of operational amplifier as
- a) Adder
 - b) Integrator

No. of Printed Pages : 4

Roll No.

221034/181031/171031

/121031/031031

3rd Sem / ECE, ECE (For Speech and Hearing Impaired), Eltx, Mecatronics, Med. Eltx, Power Eltx, Elect. Eltx. Engg.

Subject : Electronic Devices and Circuits- II/ Electronics Devices and Circuits / Analog Eltx - II

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 The voltage gain in practically expressed in_____
- a) ampere
 - b) db
 - c) volt
 - d) watt
- Q.2 Which power amplifier has highest collector efficiency.
- a) class A
 - b) class B
 - c) class C
 - d) None
- Q.3 The voltage gain of emitter follower is
- a) one
 - b) two
 - c) three
 - d) none

- Q.4 Which of the following is not an LC oscillator?
- a) crystal b) hartley
- c) colpitts d) tuned
- Q.5 Monostable multivibrator has _____ stable states.
- a) 1 b) 2
- c) infinity d) 0
- Q.6 Op-Amp is abbreviated as _____
- a) Operational amplitude
- b) Operational amplifiers
- c) Operand amplifier
- d) none

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 If a three stage amplifier has individual stage gains of 10db, 5db and 10db; then the total gain in db is _____
- Q.8 _____ amplifier is used to increase the voltage level of weak signal.
- Q.9 Expand CMRR.

(2) 221034/181031/171031
/121031/031031

- Q.10 _____ feedback is used in oscillator. (Positive/Negative)
- Q.11 An Ideal op-amp has _____ voltage gain.
- Q.12 555 IC has _____ pins.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 What is the need of multistage amplifier?
- Q.14 Differentiate between voltage and power amplifier.
- Q.15 Write a short note on heat sink.
- Q.16 Explain the working of single tuned voltage amplifier.
- Q.17 Explain the effect of negative feedback on gain and bandwidth of an amplifier.
- Q.18 Explain the working of Hartley oscillator.
- Q.19 Explain the barkhausen criterion for oscillations.
- Q.20 Define slew rate and CMRR.
- Q.21 Draw and explain the working of block diagram of IC 555 Timer.
- Q.22 Write a short note on Astable multivibrator.

(3) 221034/181031/171031
/121031/031031