S. B. Roll. No.....

ELECTRONICS DEVICES AND CIRCUITS
3rd Exam/ECE/5861/Dec'22
(For 2018 Batch Onwards)

Duration: 3Hrs. **M.Marks:75**

SECTION-A

Q1. Fill in the blanks. **15x1=15**

a. Positive feedback is used in _____.
b. An op-amp has _____ number of inputs.
c. Push-pull amplifier uses _____ transistors.
d. An as table multi vibrator generates _____ waves
e. CMRR stands for _____
f. Maximum efficiency of Class-B amplifier is _____.
g. In multi-stage voltage amplifier _____ coupling is used,
h. IC 555 is a _____ circuit.
i. To cool down power transistors _____ are used.
j. The output voltage of a 7412 IC voltage regulator is _____ volts.
k. Input impedance of ideal op-amp is _____
l. Amplifier amplifies _____ signal.
m. Very small frequency signals are amplified by using _____ coupling.
n. The resistance of a loudspeaker is usually _____.
o. At resonance a parallel tuned circuit offers _____ impedance.

SECTION-B

Q2. Attempt any six questions. **6x5=30**

i. What is the need of Multi-stage Amplifier?
ii. Give the advantages of negative feedback.
iii. Compare Voltage and Power amplifiers.
iv. Explain Class-A amplifier.
v. Explain parallel resonant circuit.
vi. What are different types of wave-shaping circuis?
vii. What is a regulated DC power supply?

SECTION-C

Q3. Attempt any three questions. **3x10=30**

a. Explain the principle and working of Wein's-bridge oscillator
b. Draw the block diagram of IC 555 and give its working.
c. Describe RC coupled amplifier and its working with advantages and disadvantages.
d. How op-amp is used as an adder?
e. Give a comparison of Class A, Class B, Class C and Class AB amplifiers.