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

ELECTRONIC DEVICES AND CIRCUITS
3rd Exam/ECE/6408/Nov'24
(For 2023 Batch)

Duration: 3Hrs. **M.Marks:50**

SECTION-A

Q1. Do as directed any nine of the following. **9x1=9**

a. RC Coupled amplifiers are used for amplification of _____.
b. In multistage amplifier there are two or more stages. (T/F)
c. In power amplifiers usually_____ coupling is employed.
d. Distortion is minimum in _____ type of power amplifier.
e. Complementary PUSH PULL amplifier uses two amplifiers. (T/F)
f. Oscillators use _____ feedback.
g. Negative amplifier increases the stability of its voltage gain. (T/F)
h. Wein ridge oscillator is useful for_____ frequency.
i. Differentiator circuit is _____ filter.
j. To generate square wave_____ multivibrator is used.
k. A 555 timer is 8 pin IC. (T/F)
l. CMRR Stands for?

SECTION-B

Q2. Attempt any five questions. **5x4=20**

i. Discuss the need for multistage amplifier.
ii. Differentiate voltage and power amplifiers.
iii. Write the main features of Emitter Follower Amplifier.
iv. Describe Barkhausen criterion for oscillations.
v. Define clipper and clamper circuits.
vi. How you see 555 timers as monostable multivibrator.
vii. Write ideal characteristics of an operational amplifier.

SECTION-C

Q3. Attempt any three questions. **3x7=21**

a. Compare RC Coupling, Transformer Coupling and Direct Coupling.
b. Explain the working of push-pull amplifier.
c. Discuss the effect of feedback (negative) on gain, distortion and bandwidth of an Amplifier.
d. Discuss Colpitt Oscillator.
e. Explain RL circuit as differentiator.