

C 22070

(Pages : 2)

Name.....

Reg. No.....

SECOND SEMESTER (CBCSS—UG) DEGREE EXAMINATION, APRIL 2022

Electronics

ELE 2C 02—ELECTRONIC CIRCUITS

(2021 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A*Answer at least **eight** questions.**Each question carries 3 marks.**All questions can be attended.**Overall Ceiling 24.*

1. Define efficiency of rectification.
2. What is the function of bleeder resistor used with filters ?
3. How zener diode acts as a voltage regulator ?
4. List any two important conditions while providing biasing of a transistor.
5. Why common collector amplifier is also known as emitter follower ?
6. Two stages of a multistage amplifier have gains 40 dB and 30 dB. The total voltage gain is _____.
7. Write the expression for the voltage gain of the amplifier with negative feedback and explain each term.
8. Explain class C amplifier.
9. List any two differences between voltage amplifier and power amplifier.
10. Explain damped and undamped oscillations.
11. Why we use three RC sections in RC oscillator ?
12. What do you meant by multivibrator ?

(8 × 3 = 24 marks)

Section B*Answer at least **five** questions.**Each question carries 5 marks.**All questions can be attended.**Overall Ceiling 25.*

13. Draw the circuit diagram of a centre tapped full wave rectifier and explain its working.
14. Why we need filters in a power supply ? Explain the working of an inductor filter with neat sketch.

Turn over

15. What are the advantages and disadvantages of RC coupled amplifier ?
16. With neat block diagram, explain the principle of feedback amplifiers.
17. Draw the circuit diagram of class A power amplifier and explain its operation.
18. Briefly explain different types of sinusoidal oscillators. Give any one application.
19. Determine the period and frequency of oscillation of an astable multivibrator with component values $R_1 = 47 \text{ K}\Omega$, $R_2 = 47 \text{ K}\Omega$ and $C_1 = C_2 = 0.01 \text{ }\mu\text{F}$.

(5 × 5 = 25 marks)

Section C

Answer any one question.

The question carries 11 marks.

20. Draw and explain the emitter follower circuit. List its important characteristics.
21. Write short note about : a) Wein-bridge oscillator ; b) Crystal oscillator.

(1 × 11 = 11 marks)