



REGISTRATION NUMBER

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SRINIX COLLEGE OF ENGINEERING

1ST INTERNAL EXAMINATION-2021-22

Subject-BETC

Semester-1st

Branch-SEC(B)

Full Mark-60

Time-2.00Hrs

ANSWER ALL QUESTIONS (PART-A)

[2X10=20]

1. What do you mean by a semiconductor? Differentiate between P and N type semiconductor.
2. Differentiate between BJT and FET.
3. Find a relation between α and β ?
4. What is forbidden energy gap?
5. What is rectifier and write its types?
6. Define OPAMP and write its properties.
7. What is doping?
8. Write Shockley's equation with its terms?
9. Draw circuit diagram of half wave rectifier and center tap full wave rectifier.
10. Write about NAND gate?

ANSWER ALL QUESTIONS (PART-B) **[5X4=20]**

1. Explain briefly about the bridge type rectifier with diagram.
2. Explain the VI-characteristics of diode with proper diagram.
3. Briefly explain the working principle of NPN transistor.
4. Write about the parameters of JFET?

ANSWER ANY TWO QUESTION (PART-C)

[10x2=20]

1. Write a note on CMOS?
2. Explain the inverting and non-inverting amplifier of OPAMP.
3. Write a note on all logic gates?

ALL THE BEST

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