Subject :-Electronics Devices & Circuits   **Code :-3KS03/3KE03**

Instructions:-
1) Solve any two questions
2) All question carry equal marks

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Q1.

a)	Draw full bridge wave rectifier with capacitor filter.	2M
b)	Explain Early Effect?	2M
c)	What is bias compensation?	1M
d)	Give the comparison between BJT and JFET.	2M
e)	Draw BJT Wein Bridge oscillator	2M
f)	Explain working and application of LED.	1M

Q2.

a)	What are the advantages of pi(π) filter	2M
b)	Explain how BJT can be used as a amplifier.	2M
c)	What is thermal runaway?	1M
d)	Draw the static characteristic of JFET.	1M
e)	Explain the operation of BJT Colpitts oscillator.	2M
f)	Explain the operation of LASER diode.	2M

Q3.

a)	Give comparison of half wave and full wave rectifier	2M
b)	Derive the relationship between, I_{CBO} and I_{CEO}.	1M
c)	What is significance of DC load line?	2M
d)	Explain JFET parameter i) Drain resistance- ii) Trance conductance.	2M
e)	Draw working diagram of wein bridge oscillator.	2M
f)	What are Opto electronic Devices?	1M

Q4.

a)	Explain operation of PN Junction diode.	2M
b)	How transistor acts as a amplifier.	2M
c)	What is need of biasing in transistor?	1M
d)	Draw the static characteristics of JFET.	2M
e)	Explain merits and demerits of crystal oscillator.	1M
f)	What Is Photovoltaic Effect?	2M