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<b>R-11 / R-13</b>
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**Code: 1G334**

II B.Tech. I Semester Supplementary Examinations October 2020

**Electronic Devices and Circuits**

( Common to CSE & IT )

Max. Marks: 70

Time: 3 Hours

Answer any **five** questions  
All Questions carry equal marks (**14 Marks** each)

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- 1. a) Distinguish between Zener Break down and Avalanche Break down. 7M  
b) Draw the Zener diode V-I characteristics. Explain how Zener diode provides a constant output voltage. 7M
- 2. a) Develop Centre tapped full wave rectifier with its operation 7M  
b) Write short notes on i) RC Filter ii) L Filter 7M
- 3. a) Infer the working principle of NPN transistor with neat diagram. 7M  
b) Write short notes on i) DC Load line ii) Operating point 7M
- 4. a) Write short notes on i) Thermal resistance ii) Heat sink. 7M  
b) What are the advantages of self-bias over fixed bias? 7M
- 5. a) With a neat sketch explain the characteristics of MOSFET in enhancement mode. 7M  
b) Explain the constructional details of JFET. 7M
- 6. a) Draw and explain class A power amplifier 7M  
b) Compare the class A and class B Power amplifiers 7M
- 7. a) How does negative voltage feedback increases B.W 7M  
b) Express the effect of feedback on i/p characteristics on current series. 7M
- 8. a) Explain with a circuit diagram the working of Hartley Oscillator 7M  
b) show that colpitts oscillator circuit and discuss briefly 7M

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