

Symbol Number: _____ Invigilator's Sign: _____ Superintendent's Sign: _____

Symbol No. in Words: _____ Code No.

School: SOE	Level: BE	Program: BEEE	Exam Year: 2080, Push
Subject: Electronics Devices and Circuits (EG504EX)			Year/Part: II/I (Model Question)
GROUP A (Multiple-Choice Questions)			[10x1=10]

- i. Answers should be given by filling the Multiple-Choice Questions' Answer Sheet.
ii. Main answer sheet can be used for rough
iii. Maximum time of 20 minutes within the total time is given for this group.

Code No.

1. Explain Zener Diode as a Voltage Regulator The operating point is also called
a. Quiescent point b. Saturation point c. Cut off point d. Breakdown point
2. Which of the following is an application of Zener diode?
a. Rectifier b. Voltage regulator c. Amplifier d. Oscillator
3. Which among the following is a current controlled device?
a. MOSFET b. BJT c. IGBT d. JFET
4. A tuned amplifier is generally operated in Operation
a. Class A b. Class C c. Class B d. Class AB
5. When negative voltage feedback is applied to an amplifier, its voltage gain
a. Is increased b. Is reduced c. Remains the same d. is zero
6. The gain of an amplifier without feedback is 100 db. If negative feedback of 3 db is applied, the gain of the amplifier will become
a. 5 db b. 300 db c. 103 db d. 97db
7. Transistor biasing represents Conditions
a. AC b. DC c. AC and DC d. noise
8. For a proper operation of the transistor, its collector should have
a. Proper forward bias b. Proper reverse bias c. inductor d. capacitor
9. An ideal value of stability factor is
a. 100 b. 200 c. More than 200 d. 1
10. If the feedback fraction of an amplifier is 0.01, then voltage gain with negative feedback is approximately.....he value of negative feedback fraction is always
a. 500 b. 100 c. 1000 d. 5000

Multiple Choice Questions' Answer Sheet

Marks Secured: _____

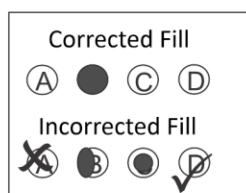
In Words: _____

Examiner's Sign: _____ Date: _____

Scrutinizer's Marks: _____

In Words: _____

Scrutinizer's Sign: _____ Date: _____



1. (A) (B) (C) (D)	6. (A) (B) (C) (D)
2. (A) (B) (C) (D)	7. (A) (B) (C) (D)
3. (A) (B) (C) (D)	8. (A) (B) (C) (D)
4. (A) (B) (C) (D)	9. (A) (B) (C) (D)
5. (A) (B) (C) (D)	10. (A) (B) (C) (D)

MANMOHAN TECHNICAL UNIVERSITY
Office of the Controller of Examinations
 Exam Year: 2080, Push

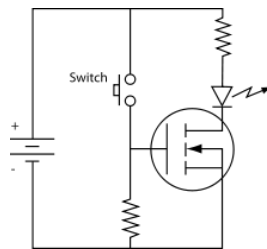
School: SOE	Level: BE	Program: BEEE	Time: 3 Hours
Year/Part: II/I (Model Question)			Full Marks: 50
Subject: Electronics Devices and Circuits (EG504EX)			Pass Marks: 20

- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ The figures in the margin indicate Full Marks.
- ✓ Assume suitable data if necessary.

GROUP A (Multiple-Choice Questions and Answer Sheet in separate paper) [10x1=10]

GROUP B (Short Answer Questions - Attempt Any Eight) [2x8=16]

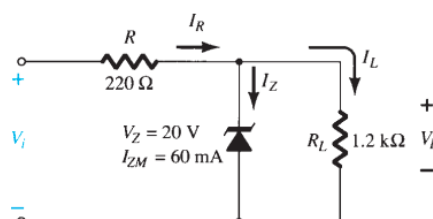
1. When a PN junction is forward biased its depletion region decreases. Explain this phenomenon with illustrative diagram.
2. Explain op-amp as Differentiator and Integrator. Also draw the output Waveforms?
3. Explain the half wave and full wave rectifier with circuit diagram and waveform for each.
4. Explain Zener Diode as a Voltage Regulator with a suitable circuit diagram.
5. What are Oscillators? Explain their types and Principle involved?
6. Explain clipper and clampers circuits with one example for each using waveforms.
7. Explain the concept of DC and AC load Line.
8. Explain the working of the Circuit Diagram shown below.



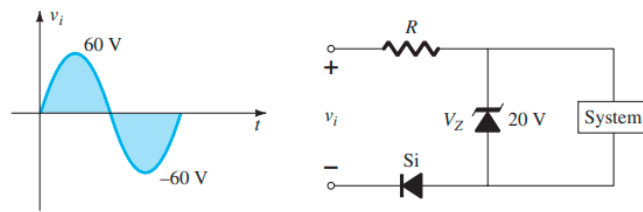
9. Discuss the two-port model of a BJT transistor with a suitable diagram.

GROUP C (Long Answer Questions - Attempt Any Six) [6x4=24]

10. Describe in brief the operation of BJT as a switch in cut off and saturation region.
11. Explain the construction and operation of N channel enhancement type MOSFET with the help of drain characteristics and transfer characteristics.
12. Show that the closed loop gain of an Op Amp is independent of its open loop gain.
13. Discuss the design of square and triangular wave generation using a stable multivibrator.
14. Explain the logarithmic multiplier circuit using suitable diagram.
15. Determine the range of values of V_i that will maintain the Zener diode of in the "on" state.



16. Explain the operation and plot the waveform of the voltage across the system for the applied signal in the figure below.



∞∞ **The End** ∞∞