

A.V. Education Society's

# Degloor College, Degloor (114)

FACULTY OF SCIENCE

Examination Summer-2020

**Class: B.Sc. S.Y.**

**Semester : IV**

**Name of Subject: *Physics***

**Time :1 Hour**

**Paper Title and NO.: *Basic Electronics (IX)***

**Max. Marks: 40**

- N.B.*
- i) *Attempt all questions*
  - ii) *All question carry equal marks*
  - iii) *Use OMR answer sheet*
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1. Zener diode utilises ..... characteristics for voltage regulation.
  - A) Reverse
  - B) Forward
  - C) Both forward and reverse
  - D) None of the above
2. In an unregulated power supply, if a.c. input voltage increases, then the output voltage..
  - A) Decreases
  - B) Increases
  - C) Remains constant
  - D) None of the above
3. Zener diode can be used as...
  - A) DC voltage regulator only
  - B) AC voltage regulator only
  - C) Both DC and AC voltage regulator
  - D) None of the above
4. Percentage voltage regulation is
  - A)  $\frac{V_{NL}-V_{FL}\times 100}{V_{FL}}$
  - B)  $\frac{V_{NL}}{V_{FL}} \times 100$
  - C)  $\frac{V_{FL}}{V_{NL}} \times 100$
  - D)  $\frac{V_{NL}+V_{FL}\times 100}{V_{FL}}$





23. Common mode rejection ratio (CMRR) is
- A)  $\frac{A_{CM}}{A_{DM}}$                       B)  $\frac{A_{DM}}{A_{CM}}$
- C)  $\frac{A_{CM}+A_{DM}}{A_{DM}}$                       D)  $\frac{A_{CM}-A_{DM}}{A_{DM}}$
24. The differential gain is
- A) Very high                      B) Very low
- C) Depends upon input voltage                      D) About 100
25. For an OP-AMP with negative feedback, the output is
- A) Equal to input                      B) Increased
- C) Feed back to inverting input                      D) Fed back to noninverting input
26. An OP-AMP can amplify
- A) DC signals only                      B) AC signals only
- C) Both AC and DC signals                      D) Neither DC nor AC signals
27. Slew rate is maximum rate of change of ....
- A) Input current                      B) Output current
- C) Input voltage                      D) Output Voltage
28. Slew rate is measured in...
- A) Volts/microsecond                      B) Ampere/ micro second
- C) Micro-second/ volts                      D) Micro second/Ampere
29. If  $A_{DM}=3500$  and  $A_{CM}=0.35$  then CMRR is
- A) 1225                      B) 10,000
- C) 0.0001                      D) None of the these
30. Which of the following is/are properties of OP-AMP
- A) High input impedance                      B) Large open loop voltage gain
- C) Large CMRR                      D) All of these
31. An oscillator converts..
- A) AC power into DC power                      B) DC power into AC power
- C) Mechanical power to AC                      D) AC to Mechanical power



**ANSWER KEYS****MCQ QUESTION PAPER SET****SUBJECT: PHYSICS****CLASS: B.Sc. SECOND YEAR****SEM -IV****PAPER-IX****MAX.MARKS:40****TIME DURATION:1 HR.****TITLE: BASIC ELECTRONICS**

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Q.NO.	ANS.
1	A
2	B
3	C
4	A
5	B
6	A
7	D
8	C
9	D
10	D

Q.NO.	ANS.
11	D
12	C
13	A
14	A
15	C
16	D
17	C
18	A
19	A
20	A

Q.NO.	ANS.
21	B
22	D
23	B
24	A
25	C
26	C
27	D
28	A
29	B
30	D

Q.NO.	ANS.
31	B
32	A
33	B
34	C
35	C
36	C
37	D
38	D
39	A
40	C

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