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SUBJECT CODE NO: -BB-2344
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. (CBCGS) (Pattern 2022) T.Y SEM V
Examination November / December 2025
Electronics-XVIIA Power Electronics

[Time: 1:30 Hours]**[Max. Marks: 40]**

Please check whether you have got the right question paper.

N. B

- 1) Attempt all questions.
- 2) All questions carry equal marks.
- 3) Use only blue or black pen.
- 4) Draw flow chart/ Diagram whenever necessary.

Q1 Attempt any one.**10**

- (a) Explain silicon controlled rectifier and Unijunction Transistors?
- (b) Explain Photoelectric sensors details?

Q2 Attempt any one.**10**

- (a) Draw the block diagram of a DC drive system?
- (b) Draw the block diagram of a AC drive system?

Q3 Write short notes on any two.**10**

- (a) TRIAC.
- (b) Electromagnetic Relays.
- (c) Motor Braking dc drives.
- (d) PWM control methods.

Q4 Attempt the following 10 multiple choice questions.**10**

1. With the increase in the intensity of light, the resistance of a photo voltaic cell.
a. Increases b. Decreases c. Remain same d. None of the above
2. Regenerative braking is not found in which motor?
a. DC shunt motor b. DC series motor c. Induction motor d. DC compound
3. The slip power recovery method for the speed control of induction motor
a. Increase the efficiency b. Decrease the efficiency
c. Improve the power factor d. none of the above
4. Which speed control is preferred for constant torque drive?
a. mechanical loading system b. alternate voltage control
c. field control d. None of the above

5. For controlling the speed of dc motor of 150 HP rating, the following types of converters are normally used
 - a. single phase full converter
 - b. single phase dual converter
 - c. three phase full converter
 - d. three phase dual converter
6. A SCR is a _____ layer P-N semiconductor device.
 - a. Four
 - b. Three
 - c. Two
 - d. Five
7. A UJT is used for _____.
 - a. Switching
 - b. Coupling
 - c. Amplification
 - d. Rectification
8. The number of junctions in an SCR are.
 - a. 4
 - b. 2
 - c. 5
 - d. 3
9. Proximity detectors are the.
 - a. Electronics sensors
 - b. Mechanical relays
 - c. Electromagnetic sensors.
 - d. both a and b
10. Which term describes maximum expected error associated with a sensor?
 - a. Precision
 - b. Resolution
 - c. Range
 - d. Accuracy

