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**NA—87—2023**

**FACULTY OF SCIENCE**

**B.Sc. (Third Year) (Sixth Semester) EXAMINATION**

**NOVEMBER/DECEMBER, 2023**

**(CBCS/New Pattern)**

**ELECTRONICS**

**Paper XV**

**(Power Electronics–II)**

**(Monday, 18-12-2023)**

**Time : 10.00 a.m. to 12.00 noon**

*Time—Two Hours*

*Maximum Marks—40*

*N.B. :—* (i) Attempt *all* questions.

(ii) Draw neat and labelled diagrams wherever necessary.

(iii) Numbers to the right indicate full marks.

1. Explain working of bridge configuration full-wave controlled rectifier with resistive load. Hence find relations for average dc load current and voltage. 15

*Or*

(a) Explain illumination control circuit using DIAC and TRIAC. 8

(b) Explain remote temperature controller circuit in detail. 7

2. Discuss in detail principle of step down chopper. Explain different control strategies in chopper circuit. 15

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Or

- (a) Explain modified series inverter in detail. 8
- (b) How are inverters classified ? 7
3. Write short notes on (any two) : 10
- (a) Mid point converters (M-2 connections) with resistive load.
- (b) Light activated turn off circuit using DIAC, TRIAC and LDR.
- (c) Step up chopper.
- (d) Basic series inverter.

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