

Roll No.

OLE-24421

B. Tech. 7th Semester (EE) Examination – April, 2021

ELECTRIC DRIVES & CONTROL

Paper : EE-403-F

Time : Three Hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Section. Question No. 1 is *compulsory*. All questions carry equal marks.

1. (a) Explain microprocessor based control of electric drive. 5
- (b) Determine the short time duty motor rating. 5
- (c) Explain the permanent magnet brushless d.c. drive. 5

- (d) Explain starting method of induction motor drives. 5

SECTION – A

2. Explain block diagram of electric drive in details. 20
3. Explain closed loop control of multi-motor drives. 20

SECTION – B

4. Explain multi-quadrant operation with an example of electric drive. 20
5. Explain load equalization and determine the moment of inertia of the flywheel. 20

SECTION – C

6. Explain chopper fed two quadrant separately excited dc motor drive. 20
7. Explain switched reluctance machine drive. 20

SECTION – D

8. Explain stator frequency and stator voltage control of induction motor drive. 20
 9. Explain static Scherbius and static Kramer's system. 20
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