

YANBU INDUSTRIAL COLLEGE
DEPARTMENT OF ELECTRICAL POWER ENGINEERING TECHNOLOGY

EET 221
ELECTRICAL CONTROL SYSTEMS

MIDTERM THEORY EXAM - FIRST SEMESTER 2015 – 16 (1435 - 36 H)



Time Allowed: 1 Hour

Maximum Marks: 15

Name: _____ ID. No. _____ Sec. No. _____

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. Write **your Name and I.D.** number in the space provided above
2. No support material written or printed is allowed in the examination Hall/Room.
3. You may use only non-programmable calculators.
4. **Do not use pencils** for answering.
5. **Answer all questions.**
6. Marks are distributed as shown in the table below

For Instructor use Only

Q.No.	Marks Assigned	Marks Attained
1	4.0	
2	4.0	
3	4.0	
4	3.0	
Total	15.0	

Instructor: Engr. Shameer A Koya

Initial:

Date: 25 / 10 / 2015

1.A. List *any four* functions of a motor control system.

(1.0 Mark)

1.B. Define the following terms:

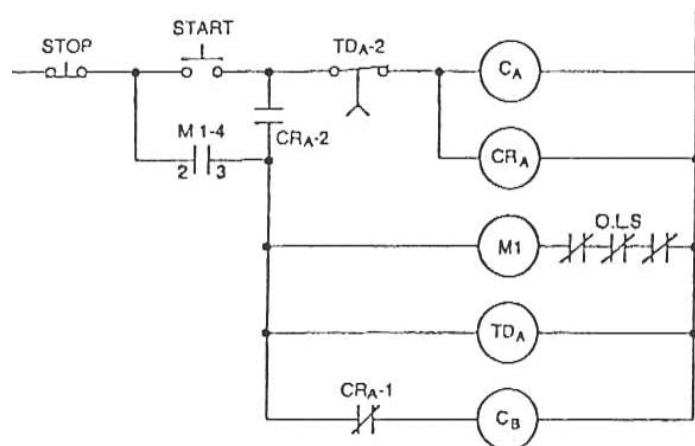
(2.0 Marks)

a. Control Component

b. Automatic Control

1. C. Make a list of control components required to make the following motor control circuit.

(1.0 Mark)



2. A. List *any four* types of Circuit Breakers (1.0 Mark)

2. B. What is the use of Magnetic Blowout coil in a Contactor? (1.0 Mark)

2. C. What is a Control Relay? Explain how it can be used to control a lamp with the help of a diagram. (2.0 Marks)

3. A. Explain working of a Solid State Contactor with the help of a neat diagram.(2.0 Marks)

3. B. List four types of Magnetic (Automatic) Motor Starters (1.0 Mark)

3. C. What is a **Pilot control** device? (1.0 Mark)

4. A. Explain operation of 'Float Switch' in an automatic water pumping system, with the help of a line diagram. (2.0 Marks)

4. B. Draw a neat diagram of Optically coupled Solid State Relay (SSR). (1.0 Mark)