



DEPARTMENT OF EXAMINATIONS
THE MALL, SARRIA STREET, FLORIANA, MALTA

Examination for Authorisation B

Paper: Practical Test
Date: 9 April 2019
Time: 10:00 – 11:00 (One hour)

Name and Surname: _____
(in block letters)

Index Number: _____

1. A 400V, 50Hz 3-phase, 15 kW induction motor is used to drive a goods lift between three floors. The motor starter is installed in a panel located at the upper level within 5 meters from the motor. Each floor control panel has an emergency stop button together with 'UP' and 'DOWN' buttons to control the operation of the lift. Limit switches are installed at every floor to ensure that the lift stops when it arrives to its destination.

You are requested to:

- a) Provide a schematic layout of the installation (8 marks)
- b) Identify what type of starter is required for this application (4 marks)
- c) Draw the main power circuit for this application (14 marks)
- d) Draw the control circuit for this application. (14 marks)

Please note:

- 1. All diagrams must be neat and fully labelled where necessary.
- 2. The control panel must be equipped with the necessary protection devices for the motor
- 3. The control circuit is supplied from a 400V/24V AC step down transformer for safety reasons.
- 4. Indication lamps are required on each floor control panel to indicate in which direction the lift is travelling.

(40 marks)

END OF EXAMINATION PAPER

WRITE AND DRAW ON THIS PAGE

Name and Surname: _____
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