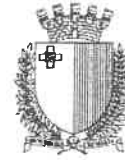


PLEASE WRITE YOUR ANSWERS AND DRAWINGS HERE



GOVERNMENT OF MALTA
MINISTRY FOR EDUCATION
AND SPORT
DEPARTMENT OF EXAMINATIONS

EXAMINATION: AUTHORISATION B

April 2022

Practical Test

Time Allowed – 1½ Hr

Name & Surname _____
(In Block letters)

Index No. _____

1. A hotel is to add an indoor heated pool and a two tennis courts. The power to these facilities and the existing Sauna is to be supplied from one three phase distribution board. The hotel demand is as shown below:
- Existing Sauna – 3kW three phase
 - Three Dehumidifiers – Each rated at 1.5kW and are single phase.
 - A Therapy motor – 0.75kW single phase
 - Main pool pump – 1.8kW three phase
 - 9 pool lights – each lighting fitting rated at 300W with a supply of 12V
 - Twelve reflectors each rated at 300W for each Tennis Court.

The electrical supply to the hotel is to be 400/ 230V 50Hz Three phase and Neutral supply.

- Draw a schematic drawing of the distribution, indicating the type of cable and method of installation used for each sub-circuit, and rating of fuses or MCBs used. Show all the working used to derive to the fuse/MCB sizes. **(25 marks)**
- Why are the pool lighting rated at 12V. How are they supplied? **(8 marks)**
- What type of starter you suggest for the Main pool pump motor. Give reasons for your choice **(7 marks)**

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