

EXAMINATION: AUTHORISATION A

September 2018

Practical Test

Time Allowed - 1Hr

Name & Surname _____
(In Block letters)

Index No. _____

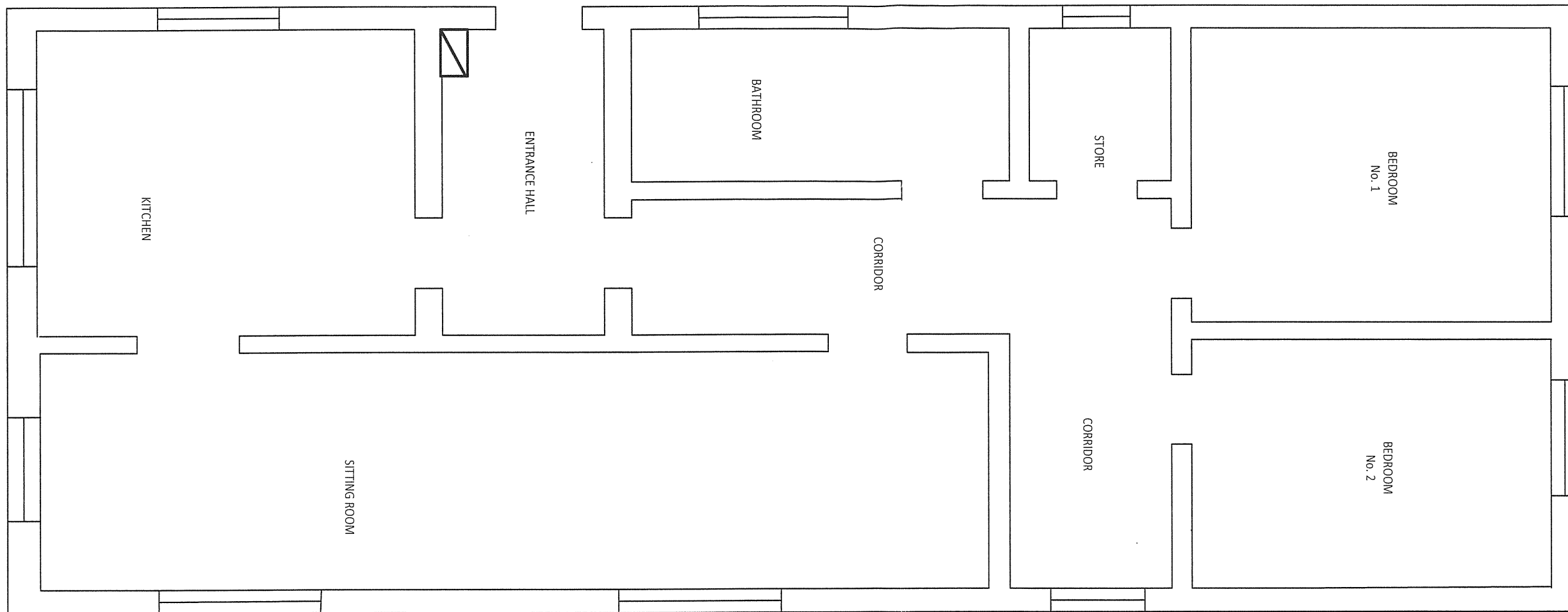
The attached drawings show the building plan for an apartment. The electrical installation is to be supplied from a 230V, 50Hz single-phase supply. The distribution supplying the electrical installation is marked on the building plans.








- a. On the building plans provided design the electrical installation for the apartment. In your design besides the lighting points and power circuits include a water heater circuit rated at 2500W and an air condition circuit for the sitting room rated at 3000W.
- Mark the lighting circuits on one building plan and the power circuits on a separate building plan.
 - In addition state how many circuits do you suggest for this electrical installation and clearly specify the area (rooms) that each circuit will be protecting.
 - Indicate on the attached drawings, the proposed circuits and conduit routes for the lighting and power circuits from the distribution board. **(20 marks)**
- b. Draw a suitable Consumer Unit Layout for the above installation showing the MCB's, Main Switch, RCD and any other protection that may be required for the installation. **(8 marks)**
- c. List the sequence of test that need to be performed before energising the installation. **(6 marks)**
- d. Describe how you would perform an insulation resistance test for this installation. **(6 marks)**

END OF PAPER

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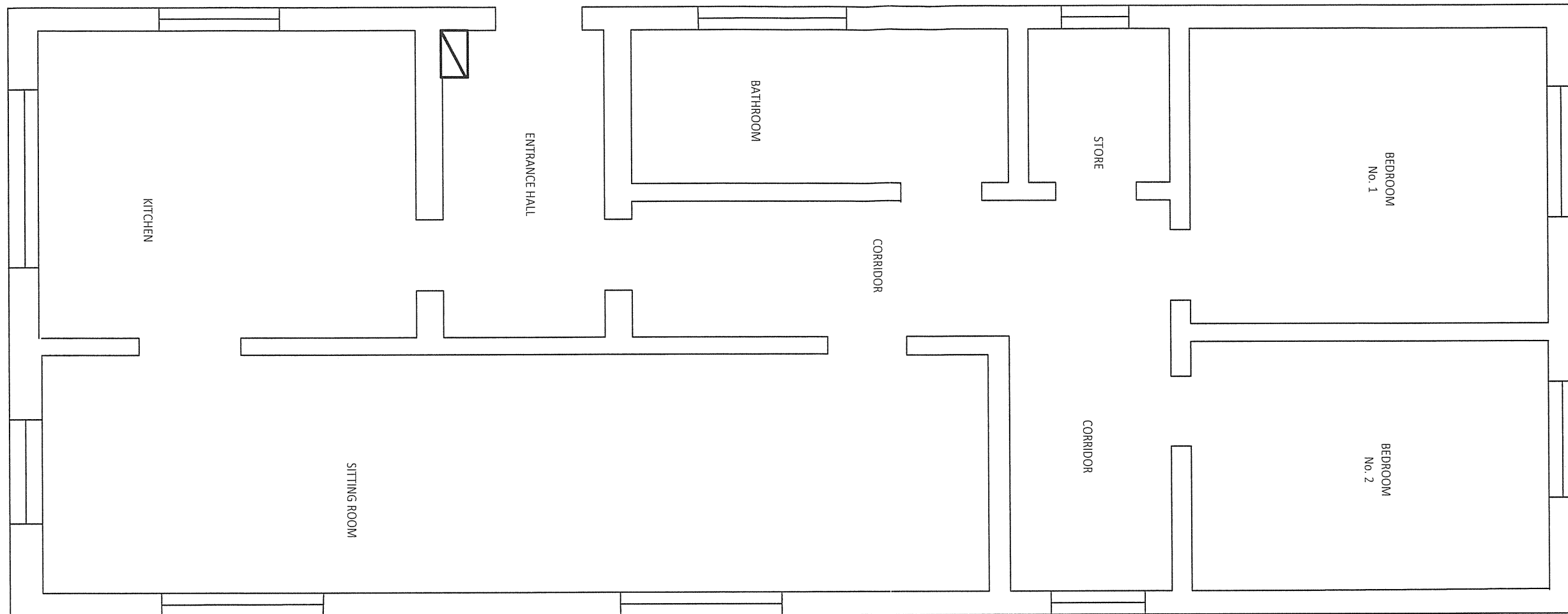









-  ONE-WAY SWITCH
-  TWO-GANG SWITCH
-  TWO-WAY SWITCH
-  CEILING LUMINAIRE
-  WALL MOUNT LUMINAIRE
-  TWIN SWITCHED SOCKET OUTLET
-  MAIN DISTRIBUTION BOARD

BUILDING PLAN FOR LIGHTING CIRCUITS

Name and Surname: _____

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BUILDING PLAN FOR POWER CIRCUITS