

FE104 Drawing Assignment 1

Section A (12 marks)

Instructions: Select the best answer for the following statements and mark the corresponding box in the answer sheet provided. Each correct answer is worth one mark.

Question 1:

What is the purpose of an isolation switch in a circuit?

- A) To provide protection to the item of equipment
- B) To have a means of stopping a piece of equipment
- C) A switch at the supply and one at the load must be used together simultaneously
- D) To isolate the piece of electrical equipment.

Question 2:

A parallel circuit is one that:

- A) Is in series with the equipment
- B) Is split into two or more circuits that run beside each other and join again
- C) Is equipment wired one after the other in a straight line
- D) Fans out from a central point.

Question 3:

What are the main uses of a wiring diagram:

- A) To assist the electrician sell a piece of equipment
- B) To show how a piece of equipment has been wired
- C) To help with motor starting
- D) To help an electrician read how the item of equipment operates.

Question 4:

When are circuit diagrams used:

- A) During the installation of equipment
- B) When there is a fault on a certain piece of equipment
- C) To help map out an installation
- D) To assemble equipment.

Question 5:

Name the plan that aims to indicate the geographical place of a site that is of interest:

- A) Location plan
- B) Site plan
- C) Lot plan
- D) Setting-out plan.

Question 6:

What type of plan uses bearings as described by degrees, minutes and seconds?

- A) Aerial plan
- B) Lot plan
- C) Contour plan
- D) Location plan.

Question 7:

Describe the term “footings”:

- A) A single brick row with mortar joints
- B) A set of profiles to provide a means of accurately aligning, squaring and levelling the position of a building on site
- C) A placing of the feet
- D) They spread out the load from the building structure above to create a level stable surface to build a structure upon.

Question 8:

A master “on” switch is connected across a two-way switch :

- A) Common and terminal one (1)
- B) The straps
- C) Common and loop
- D) Loop and a strap.

Question 9:

What diagram shows by means of single lines and circuit symbols the flow of electric power or the sequence of operation of the circuit?

- A) circuit
- B) single line
- C) wiring
- D) block.

Question 10:

What type of electrical diagram uses a topographical layout:

- A) block diagram
- B) circuit diagram
- C) installation diagram
- D) line diagram.

Question 11:

Which plan enables the electrical installer to coordinate with other selected project services for location and trenching for these services?

- A) Architectural working drawings
- B) Service point plan
- C) Site plan
- D) Setting out plan.

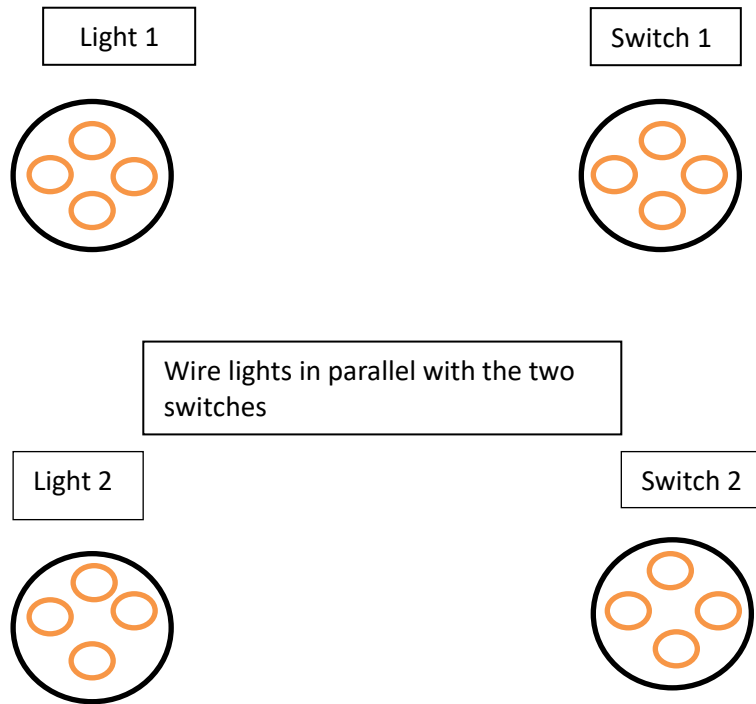
Question 12:

With what type of building construction does the electrician have to work closely with the bricklayer so that wall boxes used for switches and socket outlets are placed in the correct locations?

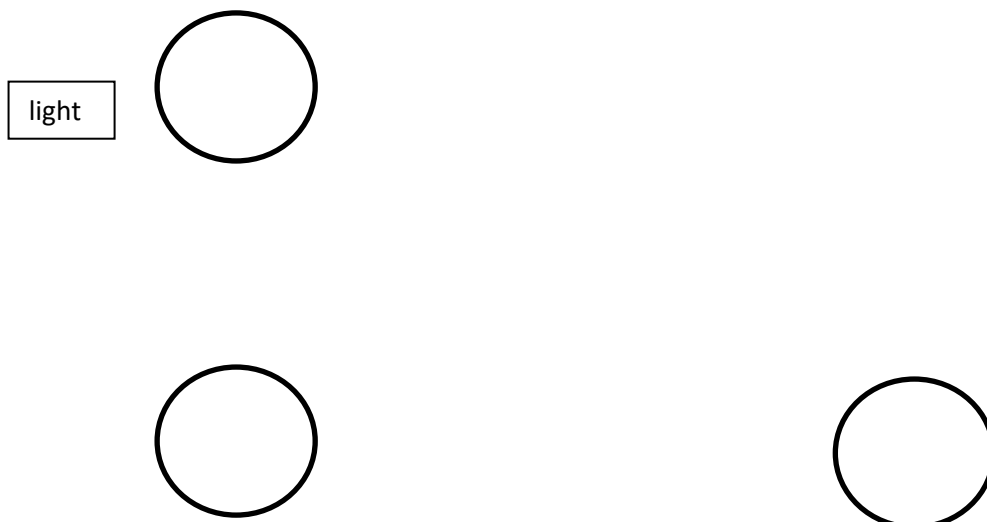
- A) Cavity brick
- B) Brick veneer
- C) Timber frame with external linings
- D) Concrete panel walls.

Section B: Diagrams (20 Marks)

Question 1



Question 2



Wire the light with the switches in two way switching

Section D. (20 marks)

In the space below, using a neat freehand sketch, draw the power and control circuit to satisfy the following operational criteria.

- A lighting circuit consisting of one switched outlet and one two way switch
- One power outlet
- Have all feeds terminate into a switchboard
- Draw the circuit on suitable paper with title block and parts list
- Using the above list wire up the parts to a fuseboard