

1521/206
1601/206
TRADE PRACTICE II
June/July 2020
Time: 8 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

CRAFT CERTIFICATE IN ELECTRICAL AND
ELECTRONIC TECHNOLOGY
(POWER OPTION)
MODULE II

TRADE PRACTICE II

8 hours

INSTRUCTIONS TO CANDIDATES

*Each candidate will carry out ALL exercises as directed by the examiner.
Time allowed for each exercise is 2 hours.
Performance of each candidate will be assessed during and at the end of every exercise.
No circuit should be connected to **POWER** without the approval of the examiner.
All dimensions are in millimetres.
All installation work should be carried out according to IEE regulations*

This paper consists of 5 printed pages.

**Candidates should check the question paper to ascertain that
all the pages are printed as indicated and that no questions are missing.**

1. **Figure 1** shows the layout of a 3-phase induction motor installation to be wired using heavy gauge PVC conduit wiring system.
- (a) Draw the power and control wiring diagram for the motor star-delta operation.
 - (b) Install and wire the three phase motor.

(25 marks)

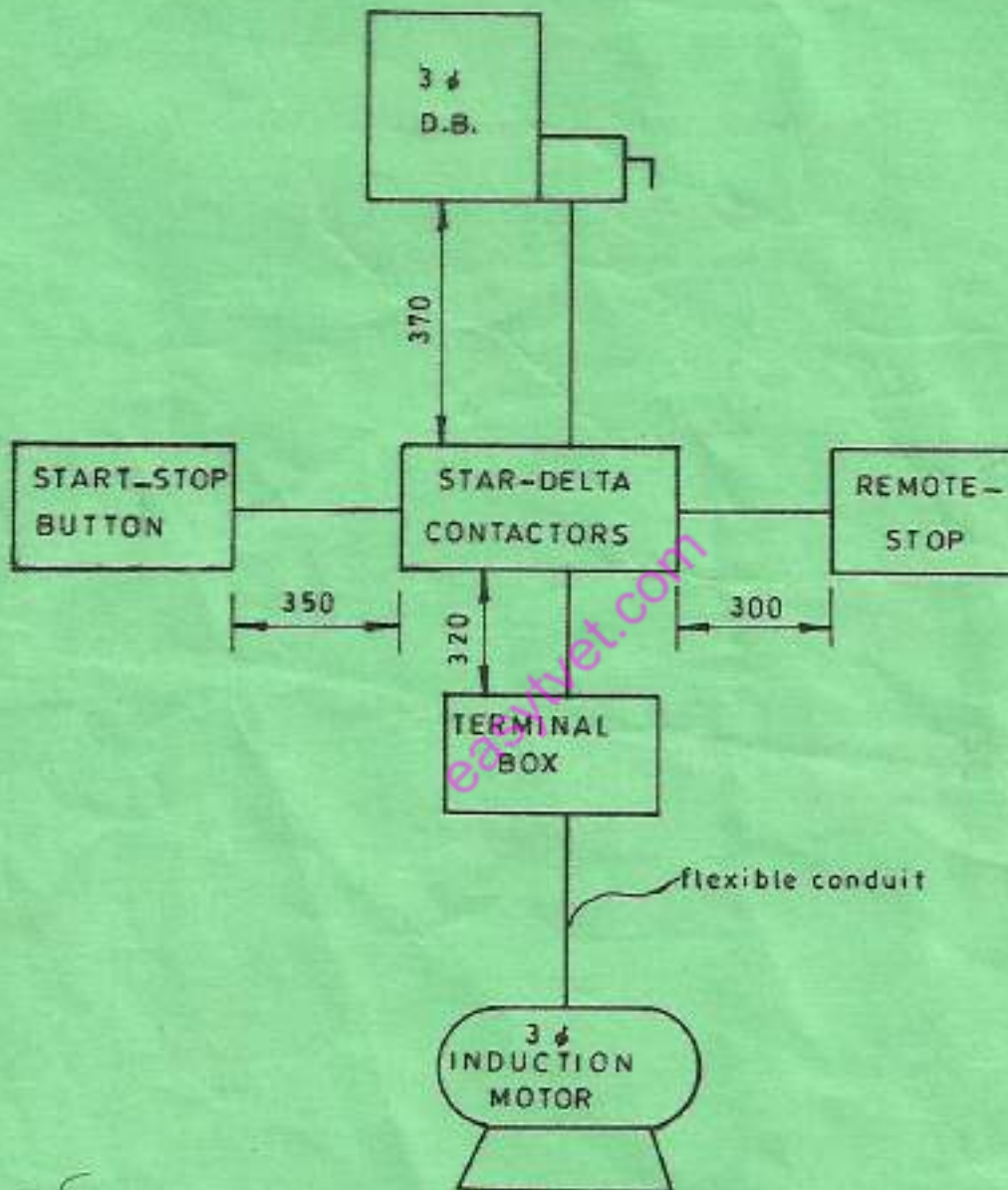


Fig. 1

1 - C
2 - B

2.

Figure 2 shows the layout of a three phase intake point and two final circuits. The control gear and distribution board are pre-installed.

- (a) Draw the wiring diagram such that:
- The lamps A and B are controlled by switch X while lamp C is controlled by switch Y;
 - Socket outlets are wired in ring with a spur;
- (b) Using PVC mini trunking wiring system, install and wire the circuits:
- (c) Carry out the insulation resistance test.

(25 marks)

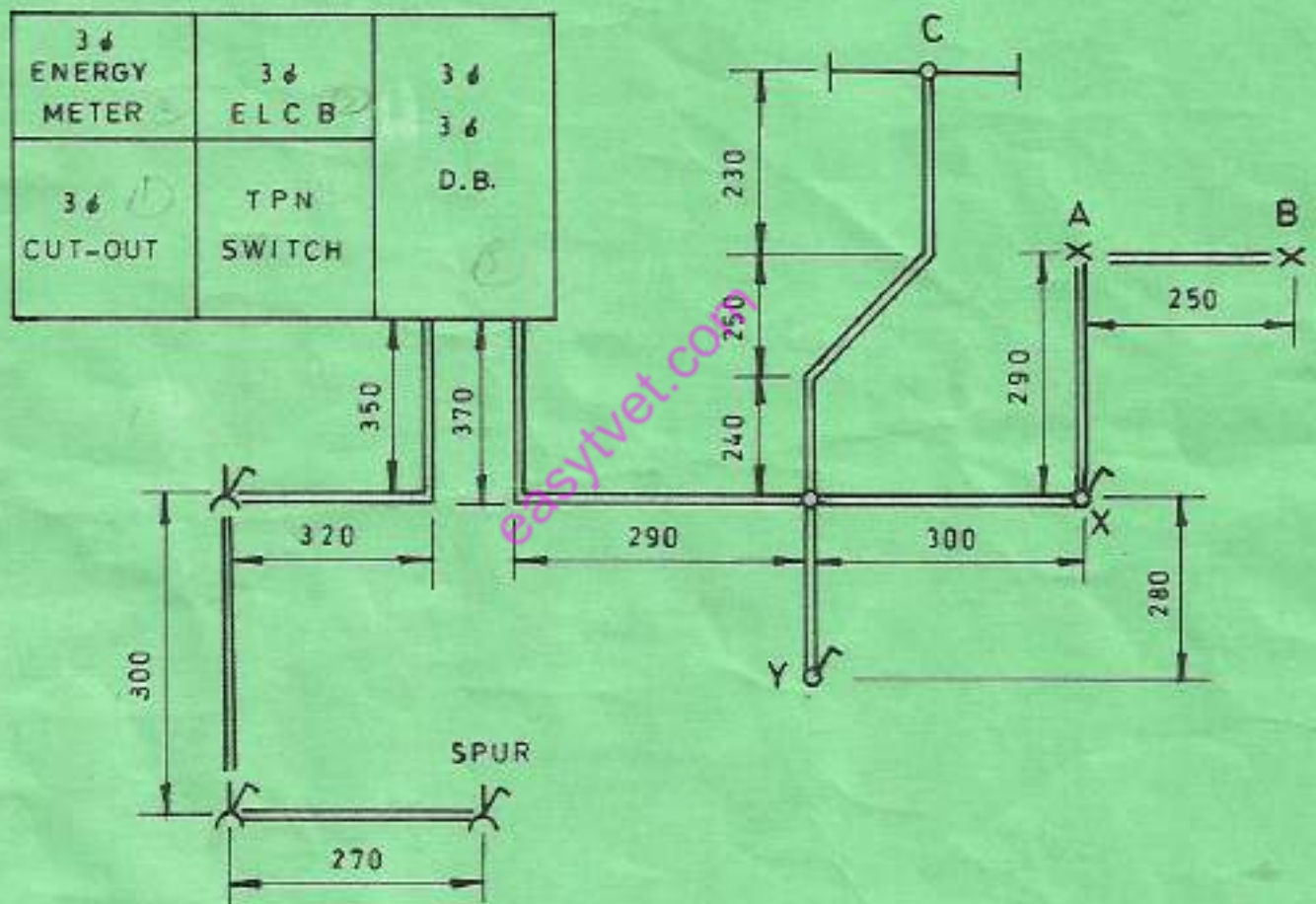


Fig. 2

Figure 3 shows a 555 timer circuit.

(a) Using the components and tools provided mount the circuit on the breadboard.

(b) Power the circuit.

(c) Measure the voltages at test points:

TP1 = _____

TP2 = _____

TP3 = _____

TP4 = _____

TP5 = _____

(d) Vary the potentiometer R_2 ; note and explain observation of LED.

(25 marks)

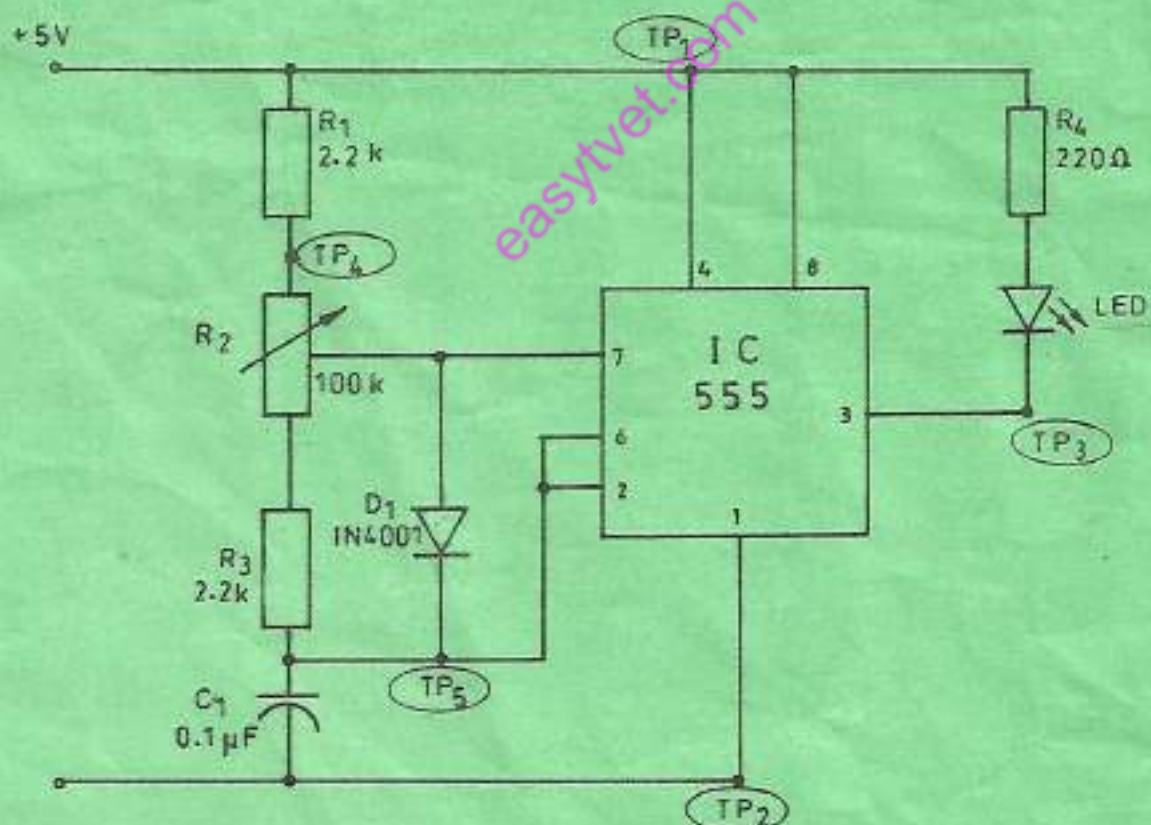


Fig.3

