

**THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATIONS COUNCIL
CERTIFICATE OF SECONDARY EDUCATION EXAMINATION**

084

ELECTRICAL DRAUGHTING
(For Both School and Private Candidates)

TIME: 3 Hours

Wednesday afternoon 17/10/2007

Instructions

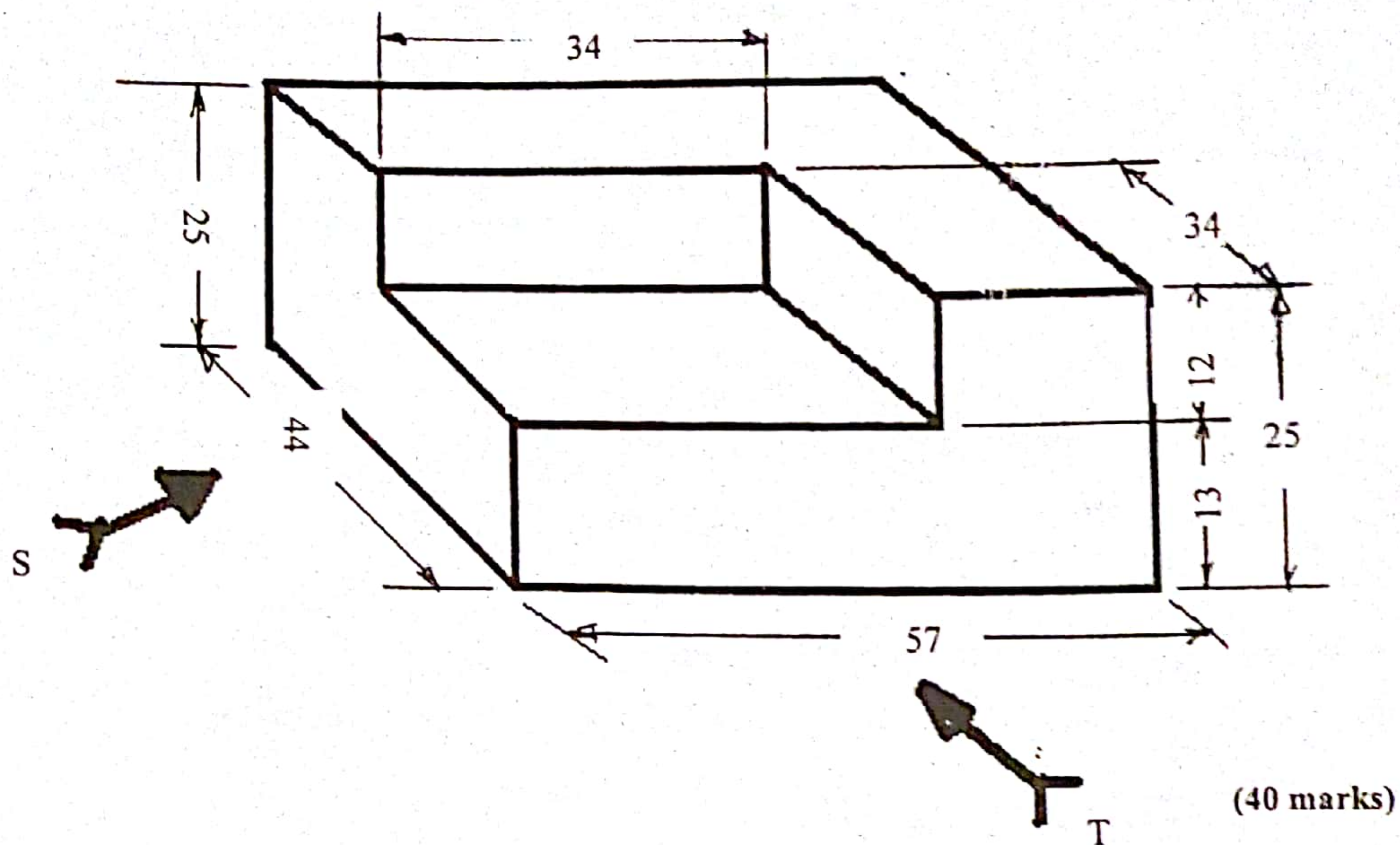
1. This paper consists of six (6) questions.
2. Answer question number 1 and any other three (3) questions.
3. Electronic calculators are not allowed in the examination room.
4. Cellular phones are not allowed in the examination room.
5. Write your Examination Number on every page of your answer booklet(s).

S4S

This paper consists of 3 printed pages.

1. Draw full size in third angle orthographic projection the following views of as shown:

- Front elevation in direction of arrow T
- End elevation in direction of arrows S
- Plan view projected from view (a)



2. Sketch the conventional figures of the following titles:

- Straight knurling
- Diamond knurling
- Square on shaft
- Hole on a circular pitch.

(20 marks)

3. The sketch shown in fig. 1 is an installation diagram of intermediate switching controlling two lighting points. Draw the assembled representation circuit diagram for the systems.

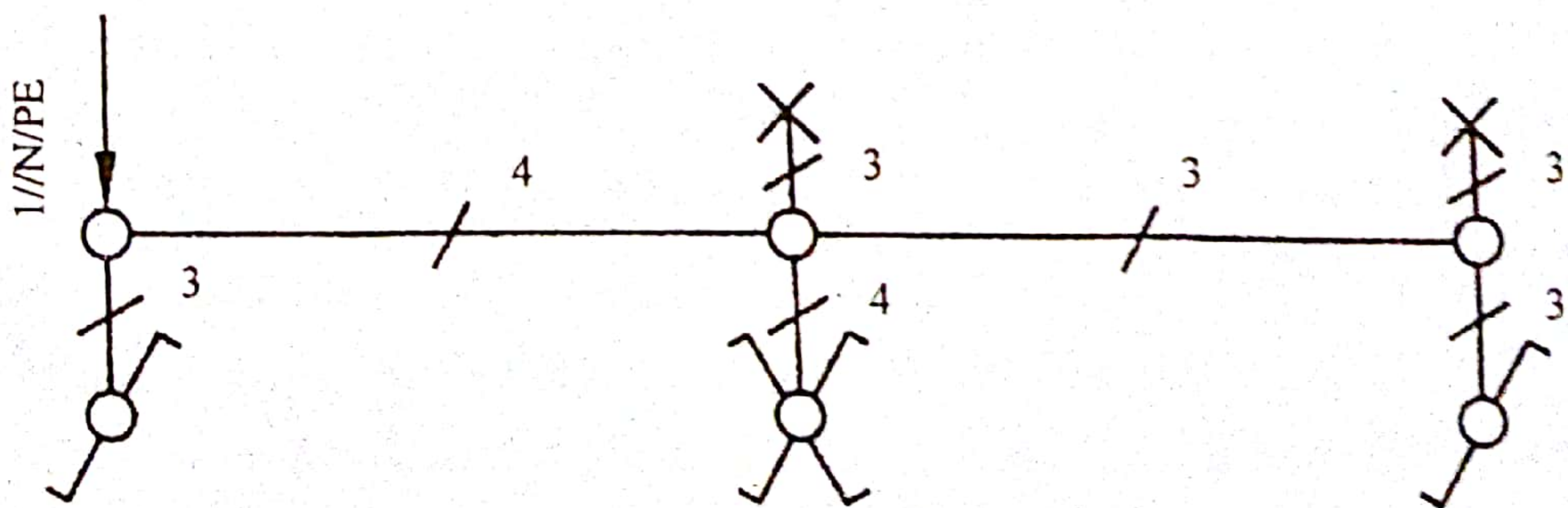


Fig. 1

(20 marks)

4. Draw a simple stable amplifier using the following components:
1 NPN transistor
4 Resistors
3 Capacitors
Use common emitter transistor configuration. (20 marks)
5. Sketch the symbols of the following accessories:
(a) Immersion heater with thermostat
(b) Fixed radiator
(c) Thermostat
(d) Filament lamp
(e) Wall socket outlet. (20 marks)
6. Sketch the symbols of the following components:
(a) Zener diode
(b) PNP transistor
(c) Rectifier
(d) Thyristor
(e) Photoelectric cell. (20 marks)