



UNIVERSITY COLLEGE TATI (UC TATI)

FINAL EXAMINATION QUESTION BOOKLET	
COURSE CODE	: DEE 2113
COURSE	: ELECTRICAL INSTALLATION
SEMESTER / SESSION	: 01 - 2024/2025
DURATION	: 3 HOURS

Instructions:

1. This booklet contains **4** question sets. Answer **ALL**.
2. All answers should be written in the answer booklet.
3. Write legibly and draw sketches wherever required.
4. If in doubt, raise your hand and ask the invigilator.

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO

THIS BOOKLET CONTAINS 3 PRINTED PAGES INCLUDING COVER PAGE

QUESTION 1

- a) Define earthing in an electrical installation. (2 marks)
- b) List the **five (5)** factors related to earthing medium resistance. (5 marks)
- c) Write down the **three (3)** types of industrial grounding system. (3 marks)
- d) Write down any **two (2)** cabling factors. (2 marks)
- e) List any **two (2)** conduit materials used for conduit wiring. (2 marks)
- f) State the **three (3)** considerations in cable shielding requirements. (3 marks)
- g) Explain surface wiring in an electrical installation. (3 marks)

QUESTION 2

- a) Name the **five (5)** common tools used in electrical wiring installation. (5 marks)
- b) Write down any **one (1)** common type of electrical socket outlets. (1 mark)
- c) State the full name of the material PVC. (1 mark)
- d) State any **four (4)** purposes of site visits. (4 marks)
- e) Explain the overcurrent protective device. (3 mark)
- f) Explain the roles of the Energy Commission in economic regulation of electricity and gas supply. (6 marks)

QUESTION 3

- a) List what Surge Protection Device protects against. (2 marks)
- b) List the **three (3)** earthing accessories for equipment earthing. (3 marks)
- c) Explain the functions of isolation and switching in control and protection for electrical wiring. (6 marks)
- d) Explain what protection system provides for electrical wiring. (5 marks)
- e) Explain equipment earthing in an electrical installation. (4 marks)

QUESTION 4

- a) State any **one (1)** method for the residual current device test. (1 mark)
- b) Explain the need for electrical wiring inspection and testing. (4 marks)
- c) Explain the purposes of the electrical wiring polarity test. (9 marks)
- d) Explain the purposes of the earth electrode resistance test. (6 marks)

-----End of Questions-----

