073106T4QSV QUANTITY SURVEY LEVEL 6 ENG/OS/QS/CC/05/6/A EXECUTE BUILDING TEMPORARY WORKS JULY/AUGUST 2024



TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION COUNCIL (TVET CDACC)

# WRITTEN ASSESSMENT

# **INSTRUCTIONS TO CANDIDATE**

- i. Time allocated: THREE (3) hours.
- ii. This paper has TWO sections **A** and **B**. Attempt questions in each section as per instructions given in the section.
- iii. You are provided with a separate answer booklet.
- iv. Marks for each question are indicated in the brackets.
- v. Do not write on the question paper

# This paper consists of three (3) printed pages.

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

# **SECTION A: (40 MARKS)**

In Attempt all questions in this section. Write answers in the answer booklet provided.

- 1. When concreting it is important to have formworks. State THREE materials used for formwork construction. (3 Marks)
- 2. Preliminaries involves temporary works and services of which scaffolding is one of them. Highlight TWO purposes of diagonals and braces in scaffolding (2 Marks)
- 3. A painter was to paint a suspended ceiling of a building using scaffolding for easy access.Identify THREE basic requirements of a scaffold. (3 Marks)
- Shoring are systems used for bracing building especially during corrective maintenance. State the THREE main shoring systems. (3 Marks)
- 5. When working on a high rise building it is important to practice safety precautions. Identify FIVE safety precautions to be observed when using scaffolds. (5 Marks)
- 6. Timber and steel are commonly in use for most temporary works. Distinguish between the following terms (4 Marks)
  - a) False work
  - b) Formwork
- 7. In order to have a fair surface of concrete works it is important to use formworks correctly.Briefly explain FIVE characteristics of a good formwork. (5 Marks)
- 8. For safety purposes and production of good concrete works it is paramount to firmly support formwork. Briefly explain the purpose of a yoke chain in formwork construction. (2 Marks)
- 9. In construction works it is importance to use good quality temporary structures. Highlight THREE common causes of failure for temporary structures (3 Marks)
- Steel formwork has advantages over timber formwork. Identify FIVE advantages of steel formwork. (5 Marks)

11. Scaffolds should regularly be maintained to ensure they are safe for use. Identify FIVE maintenance activities carried out on scaffolds (5 Marks)

(12Marks)

#### **SECTION B: (60 Marks)**

# (Attempt any THREE questions in this section).

12 a) State FIVE safety precautions observed on site when working on open trenchesbefore timbering. (5 Marks)

b) Various materials are used for timbering. Identify THREE timbering materials. (3 Marks)

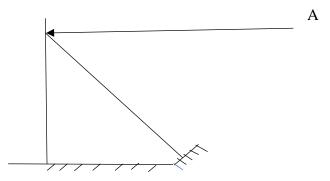
c) As a Quantity Surveyor you are expected to carry out an inspection on site to check timbering works for dry loose soil in foundation trenches. With aid of a well labelled sketch, show the details and the components of the timbering work that you would expect to be

done.

13 a) Shoring is a temporary structure used in building works. Briefly explain the term 'shoring' (2 Marks)

b) Under which situations would it be necessary to do shoring in a building structure.

(5 Marks)
 c) C) The figure below shows a line diagram of a raking shore. Sketch and label the detail of joint A (10 Marks)





- d) There are various types of flying shoring. Identify the THREE main types of flying shores
  (3 Marks)
- 14. a) Explain the term 'striking off formwork" and identify any two materials that are used to ease striking off. (4 Marks)

b) Using a well labelled diagram, show the details of a vertical section through a beam formwork using a single prop and double prop. (16 Marks)

- 15. a) Differentiate between a putlog scaffold and independent scaffold. With aid of a well labeled sketch illustrate a putlog scaffold. (10 Marks)
  - b) Gantry is a type of scaffold that one needs local authority permission before it is erected.
    - i) Under which situation do you think necessitates gantry use (2 Marks)

ii) With an aid of a well labelled sketch, show the details of a gantry scaffold (8 Marks)

