



**Tertiary & Vocational Education Commission**  
Quantity Surveying  
NCT Equivalence Examination



**Instructions:**

01. This paper consist **five (05)** questions.
02. Each question has **part A** and **Part B**.
03. Answer only one part of each question.
04. These questions contain;
  - a. Drawing (TVEC/MAP/01)
  - b. Unmarked copy of the Measurement of Building Works (First Revision), Sri Lanka Standards 573:1999 shall be used for reference during examination.
  - c. Non programmable calculators are allowed to be used in the examination.
  - d. Any assumptions made shall be entered on to the query sheet prepared by you, with the answers itself.
  - e. All waste calculations and backup sheets, which you have used must be suitably referenced and returned with your answer sheets.

**1.0 Part A**

- i. Write 5 components of a BOQ? (5 Marks)
- ii. Take off quantities for Brick work using the given specifications. (15 Marks)

**Specification notes: -**

- **Brick work:** Engineering bricks 10.5N/mm<sup>2</sup> 225 x 112.5 x 75mm BS 3921 with English bond. 1:3 cement: sand mortar.

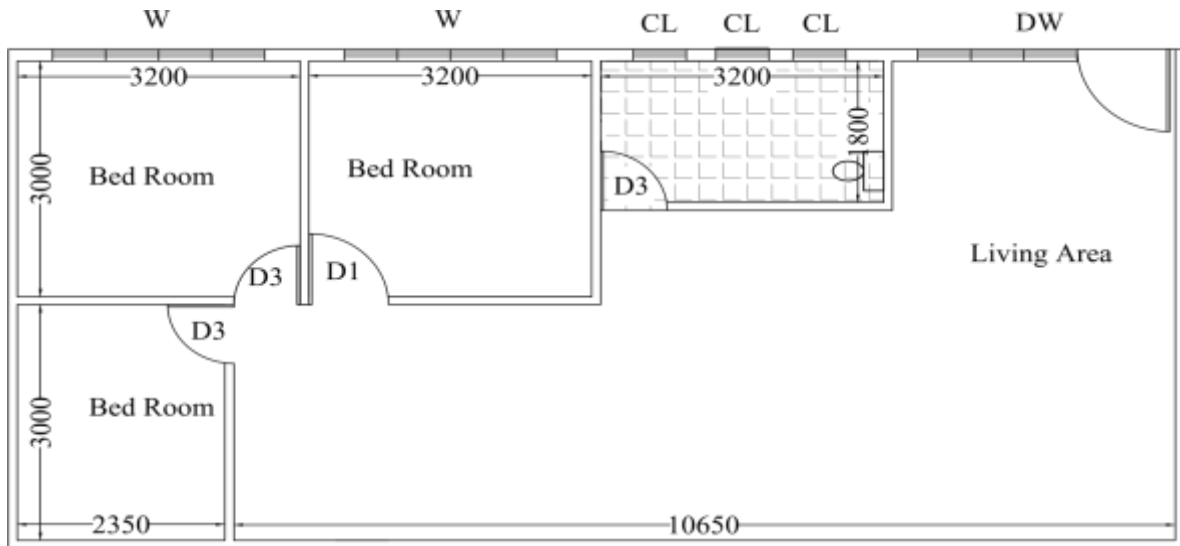
**1.0 Part B**

- i. Explain provisional sums and prime cost sums. (5 Marks)
2. Take off quantities for Random Rubble Masonry for **225mm brick wall** using the given specifications. (15 Marks)

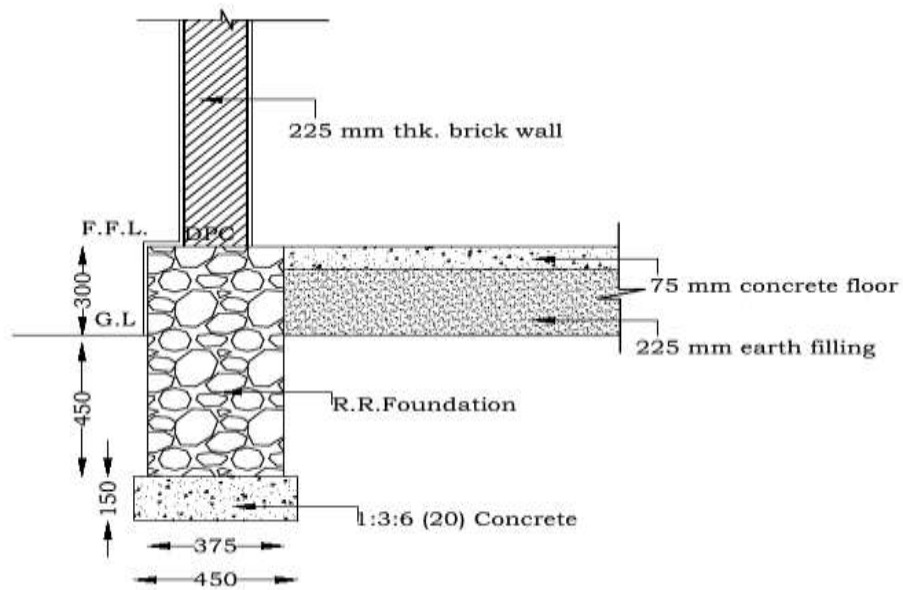
**Specification notes: -**

- **Random Rubble Masonry:** with 1:3 Cement Sand Motor
- **Thickness of the all brick wall is 225mm**

Drawing (TVEC-MAP-02)



**FLOOR PLAN**



**FOUNDATION DETAIL**

**2.0 Part A**

- i. What is the purpose of tendering/bidding, state three types of tendering/ bidding and briefly explain them? (10 marks)

- ii. Four Seasons Hotel, which is well known five-star hotel in Kandy. The hotel has signed a contract to provide its Monarch Ballroom for the Expo 2020 exhibition which will be held from 1<sup>st</sup> of January to 7<sup>th</sup> of January 2020.
- a) Unfortunately, a fire erupted in 3<sup>rd</sup> of November 2019, has caused critical damages to the hotel. The management of the hotel has approached you for the consultation of a proper tendering solution for repair the hotel at the earliest, in order to enable the hotel to host the Expo 2020 exhibition. (5 marks)
- b) Explain how you will advise the client in relation to the selection of most suitable tendering method for the above scenario. (5 marks)

## 2.0 Part B

- i. Briefly describe the main stakeholders, involved in the construction industry. (6 Marks)
- ii. Briefly explain the cost planning, and state three benefits of cost planning in the construction industry. (6 Marks)
- iii. State four types of security bonds and briefly explain one of the type. (4 Marks)
- iv. State five contractual documents used in the period of contract, briefly explain one. Form of tender. (4 Marks)

## 3.0 Part A

- i. What is Economics? (4 Marks)
- ii. Explain the Branches of Economics? (4 Marks)
- iii. What are the importance and limitations of learning Microeconomics? (8 Marks)
- iv. Explain the scarcity using relevant example. (4 Marks)

## 3.0 Part B

- i. Write down the simple accounting equation. (4 Marks)
- ii. State four (04) types financial statements which are preparing in financial accounting (4 Marks)
- iii. State four (04) types of parties who are using financial statements. (4 Marks)
- iv. State four (04) differences between Financial Accounting and Management Accounting (8 Marks)

## 4.0 Part A

- i. Mention the four (04) factors you would consider in choosing the foundation type. (4 Marks)

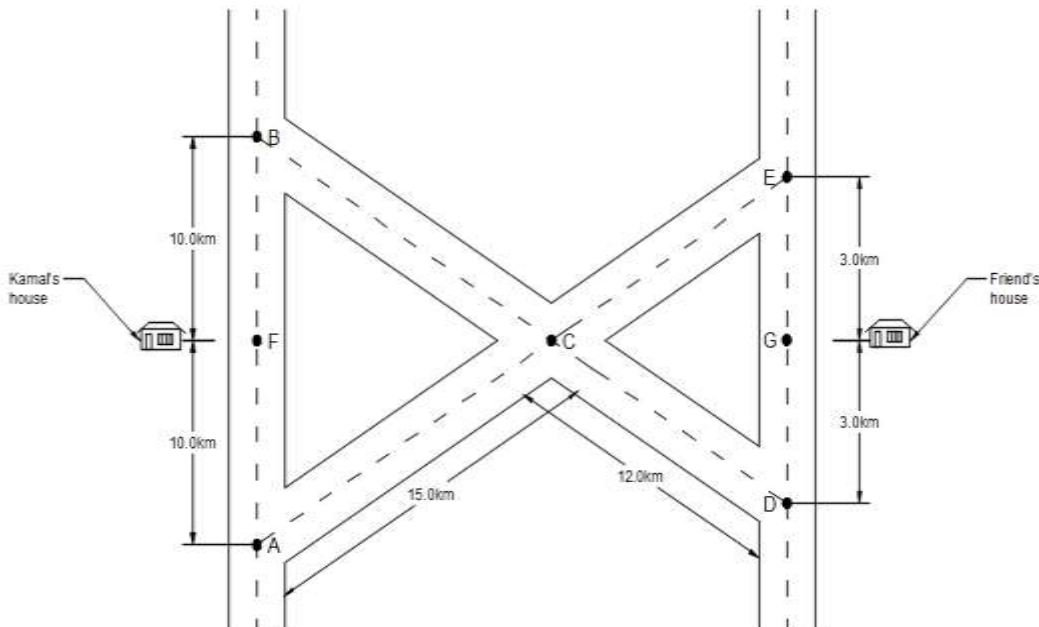
- ii. Structure essentially consists of two parts Super Structure and sub Structure. Substructure is otherwise known as the foundation. Mention five (05) function of foundation. (5 Marks)
- iii. Foundations are mainly divided in shallow foundation and deep foundation, briefly describe shallow foundation type. (6 Marks)
- iv. A client requirement is construct new 3 story restaurant in marshy land. Suggest suitable foundation type and justified your answer. (5 Marks)

**4.0 Part B**

- i. In construction industry wall can be categories Internal wall, External wall, Non load bearing wall and load bearing wall, State five (05) Function of wall. (5 marks)
- ii. Plastering is process of covering rough surfaces with a material to obtain even, smooth, regular, clean and durable surfaces. Mention five (05) objecting of plastering of brick wall. (5 Marks)
- iii. Suggest the Cement: sand ratio for below construction work (4 Marks)
- iv. Sketch 9” width English Bond ‘T’ Junction, 1st Course, 2nd Course and Front view. (6 Marks)

**5.0 Part A**

- i. State Sine Law and Cosine Law if a, b and c are the lengths of the sides opposite the angles A, B and C in a triangle as per the standard notation for an acute angled triangle. (5 marks)
- ii. A ship leaves port at 1.00 p.m. travelling North at the speed of 30km/hr. At 3.00 p.m., the ship adjusts its course 35° eastward. How far is the ship from the part at 4.00 p.m.? (5 marks)
- iii. Kamal wants to visit his friend who recently moved to a new house. The road map between Kamal’s home and his friend’s house as well as the distances known to Kamal are as shown in the figure below. Guide Kamal to reach his friend’s house using the shortest path. (10 marks)



## 5.0 Part B

- i. What are the different between Data and Information? (5 marks)
- ii. Describe the characteristics of Information (5 marks)
- iii. What is mean by Databases? (5 marks)
- iv. What are the methods of documentation? Explain them by giving advantages &disadvantages of each (5 marks)