

Tertiary and Vocational Education Commission

NVQ Level 05 – Semester II

Construction Technology

Building Technology - 01

F45C001M09

Three Hours

Answer any five (05) questions only

Question-01

- Suggest the best type of foundation type if you have to construct a high rise building in the marshland. Justify your answer. (05 marks)
- Define the meanings of **job layout** and **site clearance** in construction sites. (05 marks)
- Name any five building components with their functions. (10 marks)

Question-02

- Discuss the similarities and differences between **clay bricks** and **cement blocks**. (05 marks)
- Do a comparison between load bearing structure and framed structure through any four points. (08 marks)
- State any eight (08) characteristics of good **random rubble**. (04 marks)
- Define the meanings of **substructure** and **superstructure** of the building. List out their components also. (03 marks)

Question-03

- Draw a neat and labeled sketch of **fully paneled door** in elevation for an opening size of 1200mm x 2200mm. (3 designs with approximate scale) (10 marks)
- Express the functions of the **window sill** and the **lintel** in wall. (04 marks)
- Suggest a suitable type of window for the building types and building elements mentioning below,
 - Cinema hall
 - School
 - Enclosed staircase
 - Bathroom
 - Cement blind wall
 - Sloping roof(06 marks)

Question-04

- a. State that the five factors influence for the selection of **good formwork**. (05 marks)
- b. Draw a neat labeled diagram and name the parts of a proposed **beam** with the size of 300mm x 450mm. (07 marks)
- c. State any four precautions to be taken while **plastering**. (04 marks)
- d. Suggest any four precautions to be taken during **demolition** of existing buildings work. (04 marks)

Question-05

- a. Design and sketch the plan and elevation of a **dog-legged shaped staircase**. Consider the floor to floor height of the building as 3m. (08 marks)
- b. Define the terms of **Newel post** and **Headroom** in vertical transportation. (04 marks)
- c. Explain four defects occurring in plastering with neat sketches. (08 marks)

Question-06

- a. Separately describe the **procedures** and **importance** of water proofing in building construction used on concrete surfaces such as concrete roof top, concrete water tank and concrete slab etc. (08marks)
- b. Enlist any four types of **floor finishes**. (04 marks)
- c. State four names of the **pitched roof** types with its angles. Provide justifications for each roof types. (04 marks)
- d. Write down the necessities / requirements of having '**Scaffolding and Shoring**' in construction fields. (04 marks)