



Higher National Diploma in Construction Technology

NVQ Level 06 – Semester I

Building Technology II

F45C001M16

Three Hours

Answer any five (05) questions.

**Q1:a)** What unique role does each of the followings play in a construction project?

i. Owner / Client

ii. Designer / Consultant / Engineer

iii. Main / General contractor (06 Marks)

**b)** The construction process consists of numerous standardized and repetitive procedures. Why do expert guidance by a project manager necessary for a successful project? (04 Marks)

**c)** What is Two-Stage Tendering and how does it operate? (05 Marks)

**d)** What is the difference between Management Contracting and Construction Management? (05 Marks)

**Q2: a)** What is meant by the term “Liquidated Damages”? If the employer suffers no loss as a result of a contractor’s delay on completion, is he still entitled to deduct liquidated damages? (05 Marks)

**b)** Can a contractor be forced to carry out a variation after practical completion? (03 Marks)

**c)** What is the difference between patent defects and latent defects? (06 Marks)

**d) i)** How “Offer” is made in a construction contract, by whom, and the form used?

**ii)** What is the “Consideration” in a construction contract? And where is it mentioned?

**iii)** Who has the authority to issue “Variation Orders” in a construction contract? (06 Marks)

**Q3: a)** What do you understand by the term “Tender Document”? List out the components in a tender document. (05 Marks)

**b)** What are the mostly used three types of tendering methods? Briefly describe these three methods highlighting advantages and disadvantages. (10 Marks)



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c) Define the term “Life Cycle Costing” concerning construction projects and name at least four cost elements in life cycle cost calculations. (05 Marks)

**Q4: a)** State the type of systems by which air is brought into a building. (04 Marks)

b) Why we have to select Mechanical ventilation systems for a building? (04 Marks)

c) What is meant by “Air Conditioning”? (02 Marks)

d) State the types of fire fighting extinguishers used in a building? (05 Marks)

e) Compare a fixed sprinkler installation with other methods of fire-fighting. (05 Marks)

**Q5: a)** What is the major difference between a lift and an escalator when considering the load it conveys? (02 Marks)

b) What are the basic factors to be considered before selecting a lift for a high rise building? (08 Marks)

c) What is the function of a MCB? (04 marks)

d) State two types of grounding methods used in building wiring. (04 Marks)

e) Write short notes on followings. (02 Marks)

i) Alternating current (AC) and Direct Current (DC)

ii) Electrical circuit

**Q6: a)** Differently-abled persons too should have equal rights to access public places safely. How these rights are protected in Sri Lanka? (05 Marks)

b) According to Building Regulations, what are the basic requirements to be fulfilled for obtaining light and ventilation for a room legally? (05 Marks)

c) How “Rear space” is defined in building regulations? If the building has more than one access road, how the rear space is determined? Explain using a clear sketch. (05 Marks)

d) Give three reasons why Building Laws are necessary. (05 Marks)