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Quantity Surveying		
NVQ Level 05 - Semester II		
Material Technology	F45T001M10	Three Hours
Answer any five (05) questions		

**Question 01**

**“Concrete is a construction material composed of cement, fine aggregates (sand) and coarse aggregates mixed with water which hardens with time”**

- a) Write down three (03) types of concrete properties? (03Marks)
- b) List out three (03) types of concrete defects? (03Marks)
- c) Explain the factors that influence on the strength of concrete. (04Marks)
- d) Indicate four (04) advantages and disadvantages of concrete. (04Marks)
- e) List three (03) types of concrete tests and explain any two among them. (06Marks)

**Question 02**

**“A brick is one of the building materials used to make walls, pavements and other elements in masonry construction”**

- a) 1. What are the types of brick?  
2. Write down three (03) characteristics of first class brick? (05 Marks)
- b) What are the differences between first class brick and third class brick? (06 Marks)
- c) What is the standard size of brick and give three advantages of brick? (04Marks)
- d) What are the difference between brick and block, briefly explain? (05Marks)

### **Question 03**

**“Timbers may refer specifically to timber beams or boards used in house building. The timber often refers to felled trees and the terms lumber is used to refer to swan wood product.”**

- a) Briefly explain at least five (05) properties of good timber suitable for engineering purpose. (05Marks)
- b) Write down four (04) defects in timber or wood? (04Marks)
- c) What are the three (03) types of preservation methods applied for timber? (03 Marks)
- d) List down the four (04) objectives of seasoning of wood. (02Marks)
- e) State four (04) seasoning methods applied to wood and explain two of it. (06Marks)

### **Question 04**

**“Building components or path are essential materials for building construction and all building built with the same components such as foundation, walls, floors, rooms and roofs, all this works called building services.”**

- a) What are the four (04) common properties of building materials? (02 Marks)
- b) Write down the types of constructions materials used in the construction with two examples for each? (06 Marks)
- c) List out four (04) common defects of building materials? (02 Marks)
- d) Explain the factors affecting the selection of construction materials? (10Marks)

### **Question 05**

**“High performance engineering materials are the materials that have been introduced in to the engineering sectors and Industries”**

- a) List down four (04) high performance materials used in construction. (04 Marks)
- b) Give three (03) advantages and disadvantages of high performance materials used in construction. (06 Marks)
- c) Write down four (04) thermal properties of construction materials? (04 Marks)
- d) Briefly explain the types of construction warranties. (06 Marks)

### **Question 06**

**“Paint is a liquid or mastic materials that can be applied to surfaces”**

- a) What are the three (03) types of paints used in construction? (03 Marks)
- b) List down four (04) functions of painting in construction. (04 Marks)
- c) List down three (03) use of paint in construction. (03 Marks)
- d) What are the two (02) properties of paint (02 Marks)
- e) What are the four (04) defects of paint and four test of paint? (08 Marks)