

**W1-2-60-1-6**

## JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

**UNIVERSITY EXAMINATIONS 2020/2021**

**YEAR 3 SEMESTER 1 EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN PUBLIC HEALTH**

**IPH 2313: BUILDING MATERIAL SCIENCES**

**DATE: APRIL 2021 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER ONE QUESTION**

**QUESTION ONE (48 MARKS)**

a) Explain three climatic agencies which bring about deterioration of building stones

(6 marks)

b) Compare stones and bricks as building materials of construction (6 marks)

c) Explain why it is necessary to reduce Moisture Content (MC) of finiber used in the building works (6 marks)

d) Describe three types of glass used in building construction (6 marks)

e) Explain briefly the specific uses of plastics in building construction (6 marks)

f) Explain the steps in the manufacture of day bricks (6 marks)

g) Explain the wet process of manufacture of cement (6 marks)

h) Describe briefly the manufacture of cast iron and give four uses of cast iron (6 marks)

**QUESTION TWO (22 MARKS)**

a) Discuss the precautions that should be taken when handling time (6 marks)

b) Discuss the essential characteristics that aggregates should possess (8 marks)

c) Discuss the requirements of good timber preservatives (8 marks)

**QUESTION THREE (22 MARKS)**

Discuss the methods in timber preservation (22 marks)

**QUESTION FOUR (22 MARKS)**

a) Building stones undergo three different process during their formation. Discuss these processes giving two examples in each group (12 marks)

b) Discuss the properties that good concrete should have (10 marks)