



MACHAKOS UNIVERSITY

University Examination 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF BUILDING AND CIVIL ENGINEERING
FIRST YEAR THIRD SEMESTER EXAMINATION FOR
DIPLOMA IN BUILDING TECHNOLOGY

2705/2707/: CONSTRUCTION MATERIALS

DATE: 18/12/2020

TIME: 11:30 – 2:30 PM

INSTRUCTIONS

Answer all the five questions

1.
 - (a) Differentiate between ferrous and non ferrous metals citing two examples in each Case. (4 marks)
 - (b) State three methods of cast iron (3 marks)
 - (c) Define the following heat treatment of steel;
-hardening
-tempering
-annealing
-normalizing (8 marks)
 - (d) Mention three types of steel and state two uses of each (5 marks)
2.
 - (a) Describe two types of plastics and mention four uses in each case (8 marks)
 - (b) List down ten properties of plastics (10 marks)
 - (c) Mention any two constituents of plastics (2 marks)
3.
 - (a)
 - (i) Define the term painting (2 marks)
 - (ii) Mention why it is important to apply paints on a surface (5 marks)
 - (b) Mention and briefly explain what comprises the ordinary paint system (6 marks)
 - (c) Briefly explain the following terms as used in painting;
-binders
-pigments
-strainers
-extenders (7 marks)

4. (a) Mention four types of clay products used in the construction industry (4 marks)
- (b) Outline the procedure of manufacturing clay bricks (16 marks)
5. (a) Describe the constituents of glass. (10 marks)
- (b) By use of neat dimensioned sketches illustrate the following;
- (i) Solid brick
- (ii) Perforated brick
- (iii) Frogged brick (6 marks)
- (c) List down two classes of construction materials citing two examples in each case (4 marks)