

**TECHNICAL UNIVERSITY OF MOMBASA** 

#### FACULTY OF ENGINEERING AND TECHNOLOGY IN CONJUCTION WITH KENYA INSTITUTE OF HIGHWAYS AND BUILIDNG TECHNOLOGY (KIHBT)

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

## UNIVERSITY EXAMINATION FOR:

## HIGHER DIPLOMA IN BUILDING ECONOMICS

### EBE 3105: CONSTRUCTION TECHNOLOGY I A

END OF SEMESTER EXAMINATIONS SERIES: OCTOBER 2016

TIME: 2HOURS

# **Instruction to candidates**

You should have the following for this examination

- Answer booklet
- Pocket Calculator

This paper consist of five question. Answer any three questions of the five questions All question carry equal marks Maximum marks for each part of a question are as shown This paper consist of two printed pages

### **QUESTION 1**

a)	Outline six advantages of timber as a construction materials (6)			6 mrks)	
b)	State FIVE clay products and their point of application in building works			(5mrks)	
c)	State THREE main categories of stone classification depending on their origin or				
	composition			(9mrks)	
οι	JESTION 2				
a)	Define the term dewatering		(	(2mrk)	
b)	With aid of a diagram explain THREE methods of dewatering 9mrk				
c)	Explain three factors which make underpinning necessary in foundations			(6mrks)	
d)	) State three advantages of framed structures			(3mrk)	
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-	JESTION 3	ram, explain procedures of placing bored piles		(8mrk)	
	-	EE basic forms of framed structures 6mrk		(onnk)	
	-			nrk)	
ΟΙ	JESTION4				
-	Procedure of mixing, handling and placing of plain concrete. (10 mrk)			-)	
	Outline purposes of site clearance			(4mrk)	
	Explain the following terms				
	i.	Manual excavation			
	ii.	Mechanical excavation			
	iii.	Backfilling (6mrks)			
QUESTION 5					
a)	With aid of a diagram explain the following types of foundations				
	i.	Strip			
	ii.	Stepped			
	iii.	Isolated column			
	iv.	iv) Beam and strip			
		(12mrk)			
b)	Define the following terms as used in construction work				
	i. 	i). Backfilling			
	ii. :::	ii). Timbering			
	iii. iv.	<ul><li>iii). Profile board</li><li>iv). Dead loads</li></ul>			
	1.	(4mrk)			
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c) State FOUR TYPES of waterproof materials and points of application. (4mrk)