



TECHNICAL UNIVERSITY OF MOMBASA

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FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF BUILDING AND CIVIL ENGINEERING

DIPLOMA IN BUILDING AND CIVIL ENGINEERING

EBC 2306: CONSTRUCTION PLANT AND EQUIPMENT

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

### INSTRUCTIONS TO CANDIDATES

You should have the following for this examination

- Answer booklet
- Scientific calculator

This paper consists of **FIVE** questions

Answer any other **THREE** questions

Use neat, large and well labelled diagrams where required

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed papers.



### QUESTION ONE

- a) i) Outline the use of concreting batching plant (2marks)  
ii) Outline how a ready mix plant operates (4marks)  
iii) Outline the components of a mobile batch plant (4marks)
- b) Describe 'Jaw' as a crushing machine (10marks)

### QUESTION TWO

- a) i) What is a pile driver (6marks)  
ii) Name six types of pile drivers (6marks)
- b) Outline the operation mechanism of a pile driver (6marks)
- c) What is the environmental effects of shore pile driving (2marks)

### QUESTION THREE

- a) i) Outline the five requirements of plant management (5marks)  
ii) What are the three important reasons of plant management (3marks)  
iii) Outline the 4 types of plant routine maintenance mechanism (4marks)
- b) i) Outline 4 types of transporting plants (4marks)  
ii) What are the functional operations of transporting plant (4marks)

### QUESTION FOUR

- a) Briefly describe the following roadworks equipment
- i) Vibrating steel drum compactor (4marks)
  - ii) Pneumatic tired roller compactor (4marks)
  - iii) Combination compactor (4marks)
- b) Outline 3 advantages of pneumatic compater over steel roller (3marks)
- c) Outline the phases consisted in road and highway construction (5marks)

### QUESTION FIVE

- a) i) What does an asphalt plant consist of (6marks)  
ii) How does the finished roads to be kept heated in roadworks (4marks)
- b) i) Explain what an asphalt distributor is (2marks)  
ii) What is a road claimer (3marks)
- c) Name five types of excavating plant (5marks)

