



MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A CONSTITUENT COLLEGE OF JKUAT)

Faculty of Engineering and Technology
University Examinations 2011/2012

YEAR ONE SEMESTER ONE EXAMINATION FOR THE DEGREE OF BACHELOR IN CIVIL ENGINEERING

EME 2106 : WORKSHOP PRACTICE I

DATE: AUGUST, 2011

TIME: 2 HOURS

INSTRUCTIONS:

1. Attempt **THREE** of the following **FIVE** Questions.
 2. Question **ONE** is **COMPULSORY**.
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Question ONE (Compulsory) (30 Marks)

- (a) Outline the general safety measures requirements in the workshop. (7½ Marks)
- (b) With the aid of suitable sketches show the necessary measures essential in excavation work. (7½ Marks)
- (c) Draw the structural features of a putlog scaffold and clearly show the safety requirements of a working platform. (7½ Marks)
- (d) Outline the setting out procedure for the building shown in fig. 02. (7½ Marks)

Question TWO

- (a) With reference to fig. no.02, design and draw the plan and the cross-sectional elevation of the open well staircase shown in the drawing. (12 Marks)
- (b) Illustrate the main requirements of the building code as pertains to the construction of the balustrade. (8 Marks)

Question THREE

- (a) Draw a typical cross section to show a p.c.c. door lintel with a fixed lining. (8 Marks)
- (b) Draw across section and elevation of a standard framed match boarded door.(12 Marks)

Question FOUR

- (a)
 - (i) Describe the operation and maintenance of a pipe die.
 - (ii) Explain the various techniques used in pipe bending. (6 Marks)
- (b) For the maissonnate shown in fig. 02, provide a schematic drawing of a water supply and distribution to the various outlets in the residence. (14 Marks)

Question FIVE

- (a) Draw a section through the timber roof for the maissonnette shown in drawing no.02. (12 Marks)
- (b) Detail the fixing of the timber roof truss at the;
 - (i) Eaves,
 - (ii) At the apex. (8 Marks)