

FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI
SCHOOL OF ENGINEERING AND ENGINEERING TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

HARMATTAN SEMESTER EXAMINATION

2015/2016 SESSION

COURSE: ENG 203 – ENGINEERING DRAWING III

TIME: 3 HOURS

INSTRUCTION: I PREPARE THE TITLE BLOCK FIRST

DATE: 26TH APRIL, 2016

II WRITE YOUR NAME, REG. NO AND DEPARTMENT IN INK

III ANSWER QUESTIONS ONE AND TWO AND ANY OTHER ONE

1a. Draw in the first angle projection, three views of the body of shaft bearing shown in fig. 15-49.

b. Complete the pictorial views of an assembly drawing of body (1) and cap (2) of the shaft bearing.

c. Complete a part list of the principal parts of the assembly drawing.

d. Draw in third angle projection the following views of the drilling and tapping jig (fig 15-48):

(i) Front Elevation – F.E and

(ii) End Elevation – E.E.

2. Two pieces of metallic materials each 50mm thick are to be secured together by an M16 hexagonal bolt and nut. The nominal length of the bolt is to be 120mm and a plain washer is to be used under the nut. Draw the following views (sectional) of this assembly in the first angle projection:

(i) Front view (ii) End view (iii) Plan

3a. Make an instrumental drawing of how electricity can be brought into a house (identify the important features).

b. Make drawings (symbols and weld) of the following fillet and groove welds:

(i) With legs of equal length (ii) With different leg lengths (iii) V-groove welds (side and front views).

4a. Draw the following architectural symbols as used in presentation drawings: Closed stairs (up and down), Screened Partition, Folding door, outside storage and Dressing room.

b. Make an instrumental drawing of a small stanchion that will be connected to a base plate using two equal angles. Identify the major parts of the joining (Use your own dimensions).

N.B: Adopt your dimensions in SI units.

