TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

DEPARTMENT OF MECHANICAL & AUTOMOTIVE ENGINEERING

DIPLOMA IN MECHANICAL ENGINEERING
DIPLOMA IN TECHNOLOGY ELECTRONIC ENGINERING

EME 2105: ENGINEERIGN DRAWING & DESIGN

END OF SEMESTER EXAMINATION
SERIES: OCTOBER 2014
TIME: 2 HOURS

Instructions to Candidates:
You should have the following for this examination
-   *Answer Booklet*

This paper consists of **FIVE** questions. Attempt question **ONE** and any other **TWO** questions
Maximum marks for each part of a question are as shown
This paper consists of **TWO** printed pages

Question One (Compulsory)

Figure 1 shows a pictorial view of a MACHINE PART. Draw FULL SCALE in first angle orthographic projection the following views:

   a)   Sectional front elevation along cutting plane x – x
   b)   Plan from arrow C

Include SIX important dimensions and symbol of projection.   **(20 marks)**

Question Two

Two views of a BRACKET in orthographic projection are shown in figure 2. Draw an OBLIQUE view of the bracket taking oblique rules into considerations.   **(20 marks)**

Question Three

Figure 3 shows two views of a truncated pentagonal pyramid. Copy the given views and draw:

a) Complete plan
b) End elevation from arrow E
c) True shape
d) Surface development   **(20 marks)**

Question Four

Figure 4 shows a ROCKER ARM template. Copy the template showing the clearly how the centres of the curves are obtained.   **(20 marks)**

Question Five

a) Write down the abbreviation or symbol of the following terms:
   (i)   Across corners
   (ii) Assembly
   (iii) Centre line
   (iv) Chamfered
   (v)   Material   **(3 marks)**

b) (i) Construct a diagonal scale, 10 times full size, to show mm and tenths of a mm and to read to a maximum of 20mm.

(ii) Using the scale in b (i) above, construct a triangle QRS with QR = 17.4mm, RS = 13.8mm and angle QRS = 45° **(17 marks)**