FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

FIRST SEMESTER EXAMINATION **2012/2013 SESSION**

INTRODUCTION TO TECHNICAL DRAWING: **COURSE CODE - TCD 111**

TIME ALLOWED = 1HR: 30 MINS.

INSTRUCTION = ANSWER QUESTION (1) ONE AND ANY OTHER (3) QUESTIONS.

NOTE: GOOD TITLE BLOCK = 4MKS, GOOD PENCIL WORK = 1MK, NEATNESS = 1MK, LEGIBILITY = 1MK, PROPORTIONALITY= 1MK TOTAL = 8Mks.

Q1. Construct a regular heptagon of given side AB 4CM to produce the remaining sides of the polygon using trial and error method. Shows every construction work 13mks

Q2. Construct a regular pentagon with the given length of side AB 60mm so that perpendicular OP = AB, the diagonal line PQ = ½ AB and point D from R. 13mks

Q3. Inscribe a regular pentagon in a given circle with a diameter of 70mm AM to produce the first side of the polygon EA from H2E. Shows every construction work.13mks

Q4. Circumscribed a circle to a given triangle ABC such that angle CAB = 112.5^0 and angle ABC = 15^0 inverse. Take AB = 7.5CM. Shows all constructions work of the angles. 13mks

Q5. Construct an equilateral triangle and inscribed three (3) circles, each circle to touch two sides and two other circles. Take AB 60mm. Shows every construction work. 13mks

Q6. Inscribe (4) equal circles in a given square so that each circle touches one side and two other circles. Take AB 55mm. 13mks