



MERU UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

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University Examinations 2010/2011

FIRST YEAR, SECOND SEMESTER EXAMINATIONS FOR THE DEGREE OF
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

BIT 2111: COMPUTER AIDED ART AND DESIGN

DATE: APRIL 2011

TIME: 2 HOURS

INSTRUCTIONS: Answer question *one* in section A and any other *two* questions in section B

SECTION A

QUESTION ONE – (30 MARKS)

- (a) Explain, with the help of diagrams, the following modify commands in AutoCAD
- (i) Trim (2 Marks)
 - (ii) Fillet (2 Marks)
 - (iii) Break (2 Marks)
 - (iv) Extend (2 Marks)
 - (v) Lengthen (2 Marks)
- (b) Distinguish between the two types of the Array command: rectangular and polar array commands (4 Marks)
- (c) Outline the steps to be followed in order to draw a polygon in AutoCAD using the command line. (4 Marks)
- (d) Explain the following commands as applies to Hatches in AutoCAD
- (i) HPSPACE (2 Marks)
 - (ii) FILLMODE (2 Marks)
 - (iii) HPSCALE (2 Marks)
- (e) Develop an algorithm for designing a sphere using a Computed Aided Design Package. (6 Marks)

SECTION B

QUESTION TWO – (20 MARKS)

- (a) Explain diagrammatically the following types of dimensioning in a design package:
 - (i) Linear (4 Marks)
 - (ii) Radial (4 Marks)
 - (iii) Angular (4 Marks)
- (b) Discuss what a Gradient Fill is in Hatching (4 Marks)
- (c) Explain what viewpoints are in Design Package. (4 Marks)

QUESTION THREE – (20 MARKS)

- (a) Discuss the importance of the Design Centre in AutoCAD. (5 Marks)
- (b) Explain the following terms as applied to CorelDraw.
 - (i) Flyouts (2 Marks)
 - (ii) Scrapbook (2 Marks)
 - (iii) Artistic (2 Marks)
- (c) (i) Discuss the importance of manipulating text in a Design Package. (4 Marks)
- (ii) Discuss the role of Geometric models in Computer Aided Design. (5 Marks)

QUESTION FOUR – (20 MARKS)

- (a) Explain what a hyperlink is and outline the importance of hyper linking when using a graphics design software tool such as AutoCAD and CorelDraw. (10 Marks)
- (b) Explain ten principles of computer design (10 Marks)

QUESTION FIVE – (20 MARKS)

- (a) Discuss the internet utilities available in Computer Aided Design software. (12 Marks)
- (b) Explain the function of blocks in Computer Aided Design – AutoCAD. (8 Marks)