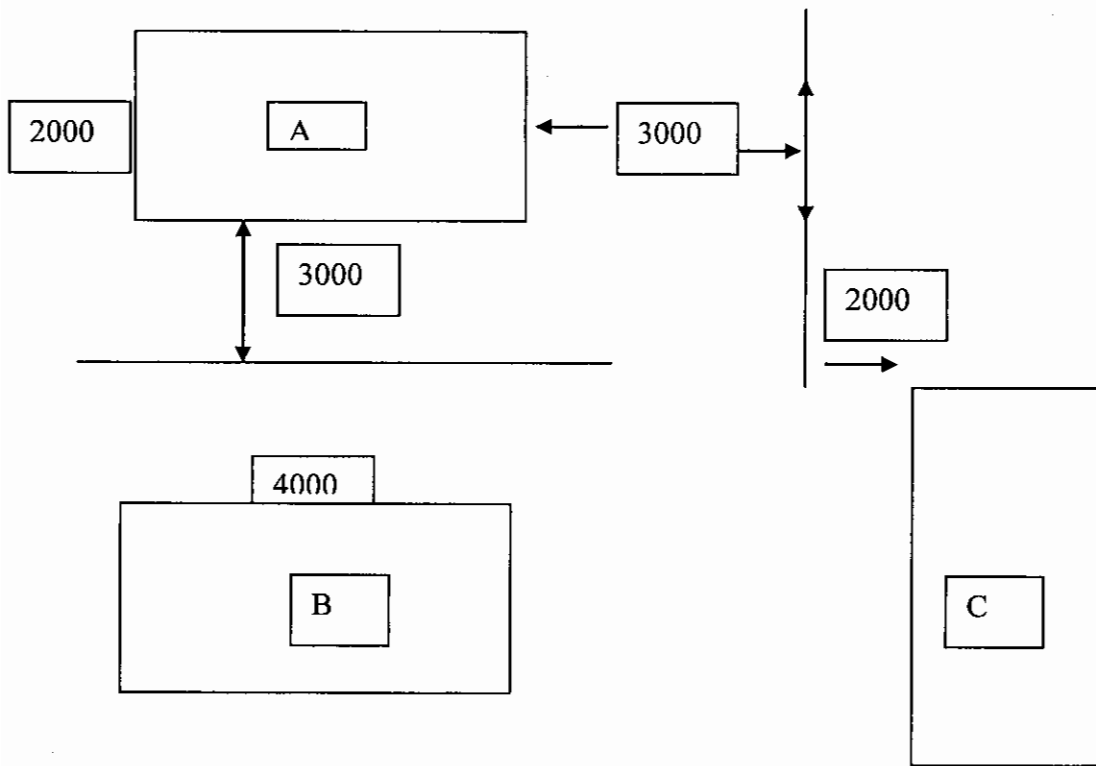


QUESTION ONE

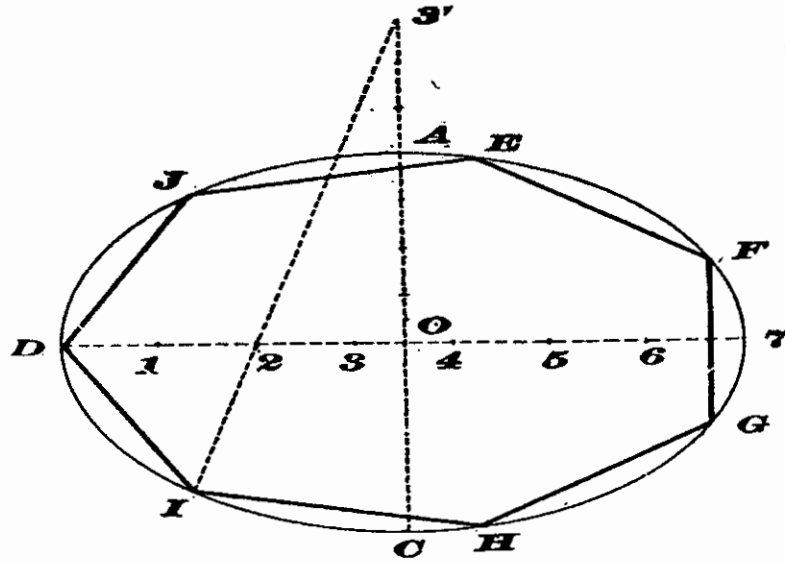
(a) Below is a rectangle A, B, and C with similar dimensions. Assuming you are starting with drawing rectangle A describe the CAD process for reaching rectangle C. [10]

(b) To come up with many A rectangles 3000 meters apart what CAD command would you use [6]



c) What is the name of the point around which objects are rotated in CAD? [2]

- d) Outline the CAD procedures to be followed when drawing a polygon with seven sides and circle both inside and outside when the circle has radius of 120mm. [7]



QUESTION TWO

- a) Outline building project activities that may be represented by the WBS links below:
- i. Finish to Finish, [2]
 - ii. Finish to Start, [2]
 - iii. Start to Start [2]
 - iv. Start to Finish [2]
- b) State three things to look for concerning toilets during scrutinization of building plans [3]
- c) Write notes on the legal and institutional framework for the construction industry in Eswatini [10]
- d) Define the following:
- i. Project Management [2]
 - ii. Project [2]

QUESTION THREE

- a) In construction, project success generally is defined in terms of document control, safety, quality, cost and schedule. Explain. [10]
- b) What are the recommended notations and symbols for the following? [5]
- i. Single door swing
 - ii. Double door swing
 - iii. Folding doors
 - iv. Reinforced concrete
 - v. Water closet
- c) Give four reasons for including sections in structural drawings [4]
- d) Define and clarify activities normally carried out during:
- i. Project start-ups, [2]
 - ii. Project Control, [2]
 - iii. Project Close out [2]

QUESTION FOUR

- a) Concerning Contracts:
- i. Describe the three different types of contracts [6]
 - ii. Explain five criteria used by clients and main contractors to decide to use subcontractors [5]
- b) Good ethical behaviour is very important in construction projects.
- i. Explain the role of good ethics by construction companies [2]
 - ii. Describe the three types of ethics that needs to be followed by construction companies in their quest for successful projects [6]
- c) Concerning AutoCAD
- i. Outline fully the AutoCAD opening sequence. [1]
 - ii. Complete the matrix below indication 10 toolbars under each category in CAD. [5]






DRAW TOOL BARS	MODIFY TOOLBARS
1	1
2	2
3	3
4	4
5	5

QUESTION FIVE

a) What is the significance of the following documents in a construction project

- i. 'Bill of Quantities' document [5]
- ii. Ganth Chart [5]
- iii. Assembly drawings [3]
- iv. Contract document [5]

b) Name and draw sketches to demonstrate the process of using the following CAD command? [5]

- i. 
- ii. 
- iii. 
- iv. 
- v. 

c) Name the two CAD symbols shown below and explain differences between them. [2]

