



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2022/2023 ACADEMIC YEAR

FOURTH YEAR SECOND SEMESTER EXAMINATIONS

FOR THE DEGREE

OF

**BACHELOR OF TECHNOLOGY IN EDUCATION AND
MECHANICAL ENGINEERING**

MAIN EXAM

COURSE CODE: TEM 466

COURSE TITLE: CAD

DATE: 11.04.2023

TIME: 1200 - 1400 HRS

INSTRUCTIONS TO CANDIDATES

Question ONE (1) is compulsory

Answer TWO (2) additional questions

Paper Duration: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over

This Paper Consists of 4 Printed Pages. Please Turn Over.

SECTION A: MULTIPLE CHOICE QUESTIONS (30 marks)

- Q1.1 For cursor movements, SNAP MODE is used for -----
. step . default .jump .increment
- Q1.2 Which command creates a new object parallel to the original object?
.parallel command .PAN command .OFF-SET command .Polyline command
- Q1.3 What does UCS stand for in AutoCAD?
.Universal Coordinate System .User Computer Software .User Coordinate System
. Universal Computer Software
- Q1.4 Which of these does change the cursor into the hand cursor?
.ZOOM .PAN .Copy .All
- Q1.5 In ORTHO MODE , lines are drawn _____ to each other
.inclined .parallel , perpendicular .in any orientation
- Q1.6 Which command is used to attach a drawing in a different page?
.Xattach .image attach .hatch . all the above
- Q1.7 Which command is used to delete unnecessary object from the drawing?
.trim .purge .Erase .All
- Q1.8 Objects are rotated about the _____ of object
.bottom . centre .base point .origin
- Q1.9 How do you deselect an object from among selected set of objects?
.ctrl + click object to be removed .Shift .Alt .None
- Q1.10 Which of the following is not a bottom on the status bar in CAD graphics window?
.polar .DYN .OSNAP . Color
- Q1.11 Which function key toggles between drawing screen to text screen?
.F6 .F5 .F3 .F2
- Q1.12 The angle between three principal axes of an ISOmetric drawing is?
.30 .45 .90 .120
- Q1.13 In AutoCAD graphics window menu bar is located _____
. above the title bar .at the same level .as title bar . below title bar
- Q1.14 In AutoCAD relative coordinate system is designated by the symbol _____
. @ . < . > . @ & <
- Q1.15 Which command is activated to draw a solid circle?

- . circle . Donut .polyline .All
- Q1.16 For what command is Ctrl + Y in AutoCAD?
 .to cut . to copy .to paste .to use Redo
- Q1.17 What is the highest number of viewports in AutoCAD graphics?
 .6 . 3 .4 .8
- Q1.18 What is the extension file of LAYER STATES MANAGER?
 .LAS .IAS .LAYER .LAYERSTATES
- Q1.19 Which of these commands is not included in the MODIFY tool bar?
 .SCALE command .BREAK command .MOVE command TEXT
- Q1.20 How many grip points does a circle have?
 .5 .4 2 1
- Q1.21 What is the default size of an AutoCAD graphics window?
 .12" x 9" .12" x 12" .9" x 14" .None
- Q1.22 Which command is used to restore erased objects?
 .De-Erase .Zoom . OOPS .All the above
- Q1.23 What is also called drop-down-menu?
 Title bar . menu bar .standard tool bar .All
- Q1.24 The command used to erase a drawing partly is called _____
 .Erase .Explode .Trim .Rubbing
- Q1.25 One of the Extension file of a CAD is _____
 .doc .xls .exe .dwg
- Q1.26 What is the extension file of auto save in AutoCAD?
 .xls .doc .exe .sv\$
- Q1.27 The function key for toggling Dynamic Input Command is _____
 .F9 .F10 .F11 .F12
- Q1.28 Which command is used to draw a line that extends infinitely either way along the X axis?
 .autoLine .xLine .pLine .rayLine
- Q1.29 Which command is used to join two inclined lines by a curve?
 .polyLine .Fillet .Chamfer .join
- Q1.30 Which of the following commands can be used to edit or alter an existing drawing?
 .move . PAN .Trim .Donut

SECTION B SUBJECTIVE QUESTIONS (30 marks)

(Answer all parts of questions QB1 – QB4)

- QB1. Name FIVE most important sections of the screen in autoCAD **[10]**
- QB2. Explain the main advantages of using the autoCAD **[10]**
- QB3. Show a step-by-step procedure to be taken prior to setting up a drawing in AutoCAD. **[10]**
- QB4(i). What is ORTHO MODE useful for in AutoCAD? **[2]**
- QB4(ii). How is ZOOM EXTENTS different from ZOOM ALL? **[2]**
- QB4(iii). What is the purpose and function of ARRAY command? **[2]**
- QB4(iv). Spell out the uses of Layers **[2]**
- QB4(v). A student drew an equal sided pentagon. After that, they decided to remove one of the short sides so as to have a closed end four – sided cup. What steps had the student taken in drawing the pentagon if it turned out an impossible task to trim off the short side? State at least two best ways of drawing the pentagon so that it is possible to remove one of the sides. Explain how to acquire the open 4-sided cup. **[2]**

QB4(vi) With the help of matrix transformation, rotate the rectangle formed by points A(1,1), B(2,1), C(2,3), and D(1,3) 30° ccw about the point (3,2) in figQB4(v). **[10]**

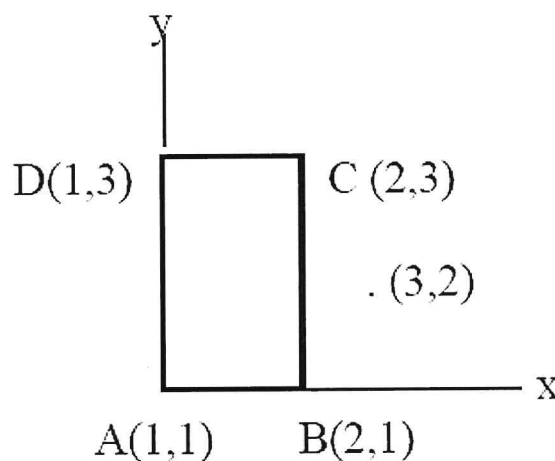


Fig. QB4(vi)