University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

FOURTH YEAR SECOND SEMESTER EXAMINATIONS

FOR THE DEGREE

OF

BACHELOR OF EDUCATION MECHANICAL ENGINEERING

COURSE CODE:　TEM 466

COURSE TITLE:　COMPUTER AIDED DRAFTING

SUPPLEMENTARY/ SPECIAL

DATE:　3/10/2022　　　　**TIME: 9:00 AM – 11:00 AM**

INSTRUCTIONS TO CANDIDATES
Answer Question One , and any other TWO questions

Paper lasts 2 hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over

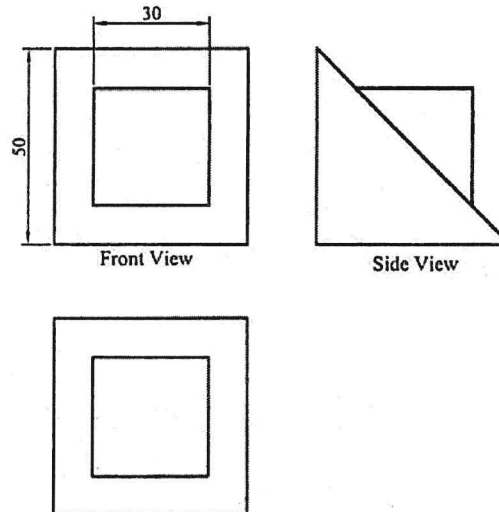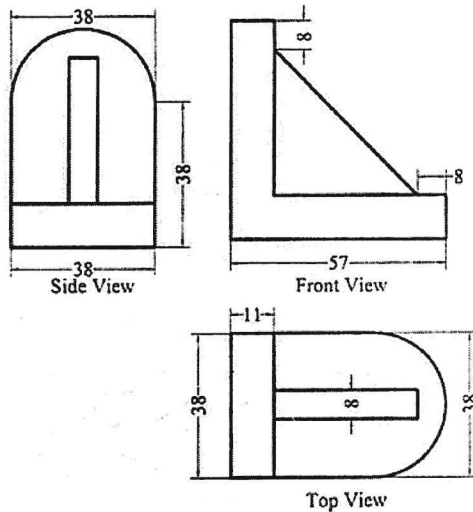## QUESTION ONE   (30 marks)   PART ONE

Fig.1   fig. 2

Choose either of the two figures I or 2, then make **FREE-HAND** perspective drawing of the object. A set of views: side, top, and end views are provided. Marks are offered for comprehension, interpretation, neatness, and correct answers.

PART TWO   (70 marks)

IN PART TWO YOU ANSWER ALL 70 MULTIPLE CHOICE QUESTIONS

SECTION C   [section C ranges from No. 20 to 34]

20. How you select the last set of object(s) you selected?

○ Type 'L'   ○ Type 'P'

○ Type 'H' to highlight them   ○ You can not do this

21. What is the best way of drawing a rectangle?

○ Using the Line command command   ○ Using the Polyline

○ Using the Rectangle command command   ○ Using the Multiline

22. To move something four units to the right, what would be the 2nd point of displacement?

○ @4,0   ○ @4<0

○ Neither 1 nor 2   ○ Both 1 and 2

23. How should you select objects when using the stretch command?

○ With a crossing window   ○ Pick them one by one

○ Hold the shift key while selecting   ○ Type 'S'

24. The origin of a drawing is at:

○ The first point you select   ○ 0,0

○ A random point in space   ○ 10,10

25. Objects are rotated around the

○ Base point   ○ Bottom right of the object   ○ Centre of the object

○ Origin

26. The fillet command creates:?

○ Sharp Corners   ○ Round Corners   ○ Round and Sharp Corners   ○ A boneless fish

27. A polar array creates new objects...

○ In a grid pattern   ○ In a straight line   ○ In a circular pattern   ○ In an northern pattern

28. The distances of a chamfer are:

○ Always different   ○ Always the same   ○ Sometimes different   ○ Never the same

29. You should use Osnaps when you dimension...

○ Never   ○ Always   ○ Only on lines   ○ Only on arcs and circles

30. How many layers should a drawing have?

○ One   ○ Ten   ○ One for each object   ○ As many as are needed to clearly display the objects

31. When can you change the height of your text?

○ Only when you start the drawing   ○ Only in a special
text dialog box

When you are starting the Text command ○ You can't, it is preset by AutoCAD

32. Scaling objects makes them...

○ Bigger ○ Smaller ○ It only stretches them ○ Both Bigger and Smaller

33. How many view do you need Orthographic Projection?

○ 1 ○ 2 ○ 3 ○ As many as are needed

34. Does it matter which Hatch pattern you use in Section views?

○ Yes ○ No ○ Only if it is steel ○ Sometimes

SECTION D   **[section D runs from No. 1 till No. 52]**

1. How many views can you generate from a 3-D drawing?

○ One ○ Three ○ Up to 99 ○ As many as you need

2. What is one advantage of 2-D over 3-D CAD drafting

○ You can get more detailed ○ It is easier to learn

○ You can print out 2D drawings ○ 2-D is more
accurate

3. What are the advantages of 3-D over 2-D CAD drafting?

○ You can generate realistic renderings ○ It is easier to adjust one model
instead of many drawings

○ You can create protypes easier ○ All of the above

4. Which axis will you use in 3-D that you didn't use in 2-D?

○ X ○ Y ○ Z ○ None of the above

5. Is isometric drawing true 3-D drawing?

○ Never ○ Only in AutoCAD 2004 ○ Always ○ Only after you
press "F4"

6. To switch isoplanes, you press:

○ "F3" ○ "F4" ○ "F5" ○ "F6"

7. Which command do you use to draw a circle in isometric drafting?

○ The Ellipse command   ○ The circle command

○ The Arc command   ○ None of the above

8. Does the screen grid look the same in isometric mode as is regular drawing mode?

○ Yes   ○ No   ○ Only when you press "F5"   ○ Isometric mode has no grid

9. In a new drawing, which direction is the Z axis pointing?

○ Up   ○ Down   ○ Towards you   ○ Away from you

10. How long is a line from '0,0,0' to '4,3,2'?

○ 2 units   ○ 3 units   ○ 4 units   ○ Over 5 units

11. Do you have to turn on the Z axis?

○ Yes   ○ No

○ Only in old versions of AutoCAD   ○ Only if you are drawing a house

12. How can you check if a line is drawn in 3D?

○ You can't ○ Dimension it   ○ Press 'F5'   ○ Check the line's properties

13. Tiled Viewports are used in...?

○ Model space   ○ Paper space (or layouts) ○ In both ○ In neither

14. How many tiled viewports are in a new drawing?

○ One ○ Two ○ Three ○ Four

15. When changing views, should you be concerned about the orientation of the UCS/WCS icon?

○ Never   ○ Always

○ No, because I don't need to know which way is up ○ No, it will never change

16. When you are using using multiple viewports, you can change to another by...

○ Pressing 'F1' ○ Using the Zoom command ○ Pressing Control+Z ○ Picking inside the viewport

17. If you copy an object 2 units up in the Z axis, can you see it from the plan view?

○ Yes, it will look different than the original object close enough

○ Yes, if you zoom in

○ No, because it is directly on top of the original object

○ Only if it is a circle

18. Switching to a SW isometric view will...

○ Hide the bottom objects most 3-D objects

○ Allow you to see

○ Turn everything upside down commands

○ Disable all drawing

19. Why should one use multiple layers in 3-D?

○ Because it's more colorful bigger

○ Because more layers make the drawing

○ It's good practice

○ to avoid an eventual jumbled mess

20. Wireframes are the most complex form of 3D drawing

○ Yes   ○ No ○ They can be   ○ Only if you are drawing bridges

21. Is 'line thickness' a true 3-D method of drawing?

○ Yes

○ Yes, but only in AutoCAD LT

○ Yes, but only if you use lots of layers ○ No, it is only a representation

22. Is line thickness the same a polyline width?

○ In most cases, yes

○ Yes, but for 3-D

○ No, they are not related

○ Only on polylines

23. How commands are needed for line thickness?

○ 2 ○ 3 ○ 5 ○ You only change the object's properties

24. Wireframes are just like isometric drawing

○ Yes ○ No   ○ They can be ○ Only when you view them from the SW isometrec view

25. What shapes can you create a region from?

○ Arc   ○ Line   ○ Rectangle   ○ Text

26. If a command to create a region fails, what might have been wrong?

○ You selected more than one object   ○ The object was not
closed
○ There was a gap or space in the shape   ○ You tried the
command on a polyline

27. The Extrude command creates a...?

○ Solid   ○ Wireframe model   ○ Region   ○ Thick line

28. A 3d Face can be...

○ Based on any shape   ○ Based on any 4-sided shape   ○ Based on rectangles
○ Based on lines only

29. Which command will give you a solid object?

○ Revsurf   ○ Revolution   ○ Revolver   ○ Revolve

30. Surftab1 and surftab2 are used in conjunction with which command?

○ Revsurf   ○ Revolution   ○ Revolver   ○ Revolve

31. You can use the Revolve command on...

○ Rectangles   ○ Regions   ○ Neither 1 nor 2   ○ Both 1 and 2

32. To rotate an object in 3-D space, you use the...

○ Rotate command   ○ 3Drotate command   ○ Rotate3D command   ○ Both 1
and 2

33. Can you see the materials on your objects without rendering the drawing?

○ Yes   ○ No   ○ Only in 3-D   ○ Yes, if you use the Hide command

34. Does the Materials Library allow you to add materials to your objects?

○ Yes   ○ Sometimes   ○ No, it only imports them into the drawing   ○ Only on
solid objects

35. Do you have the option to apply materials to all objects on a particular layer?

○ Only 3-D walls   ○ Only if the material is wood   ○ Never   ○ Always

36. To see rendered materials, you must use which option(s) in the render dialog box

○ Photo Real ○ Photo Raytrace ○ Both ○ Neither

37. Which command is not a Boolean Operation?

○ Union ○ Subtract ○ Join ○ Intersect

38. After using the Union command, the resulting object will have the properties of...

○ The current layer   ○ The first object selected

○ The last object selected   ○ You will be asked to create
a new layer

39. When using the Subtract command, which object do you select first?

○ The object to subtract from   ○ The object to subtract
○ You select everything at once   ○ The largest one

40. If you Intersect 2 objects what will you be left with?

○ Nothing   ○ The volume of both
objects combined

○ The volume where the two objects interfere with each other   ○ Nothing

41. Does an object created with the Box command have 6 identical sides?

○ Always   ○ Never

○ Only if you type the command in upper case   ○ Only if you
choose to draw it that way

42. How do you define the size of a Sphere?

○ With the Radius   ○ With the Diameter

○ By Stretching it   ○ You have the option for either
Radius or Diameter

43. What shape best describes a Torus?

○ A helix ○ A spiral ○ A donut ○ A black hole

44. How many sides does a Wedge have?

○ 4   ○ 5   ○ 6   ○ Depends on how you draw it

45. Which is the default coordinate system when starting a new drawing?

○ UCS   ○ XYZ   ○ WCS   ○ There isn't one

46. Which is not a valid option for the UCS command?

○ Next   ○ 3 Point   ○ Random   ○ Save

47. Which method of creating a UCS does myCADsite.com recommend?

○ View   ○ 3 Point   ○ Origin   ○ World

48. In older versions of AutoCAD, a broken pencil symbol means...?

○ That you cannot Save drawing

○ That you cannot draw on that plane adjusting

○ That you need to print the

○ Your monitor needs

49. What is the main advantage to manually mapping materials?

○ So you can see the North position look more natural

○ So that you can change the colour of the material advantage

○ Your materials can

○ There is no

50. Which is not a valid option for mapping Projection?

○ Cylindrical   ○ Spherical   ○ Resize   ○ Solid

51. Can you resize the appearence of the material without adjusting the bitmap size?

A. Yes   B. No   C. Only on cylindrical objects   D. Only on flat objects

52. By default, which direction is the material projected?

○ From the back   ○ From the front   ○ From the top   ○ From the bottom

STOP   **END**