



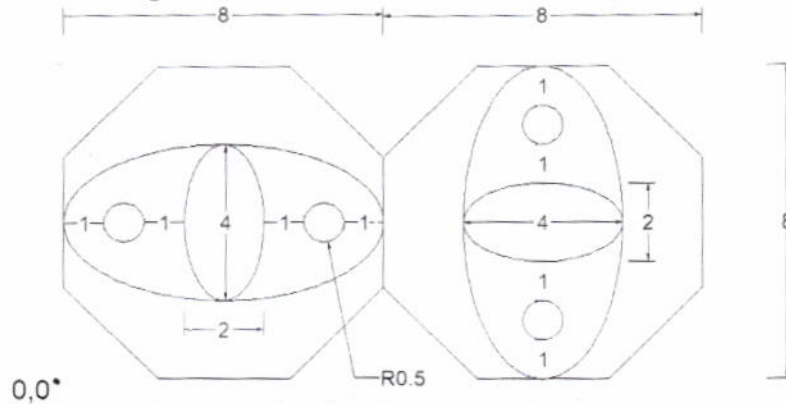
Subject :Computers Principles
 Branch :All Engineering Branches
 Examiner :Computers Committee

Class: First Year
 Time :3Hours
 Date : 10 /6 /2014

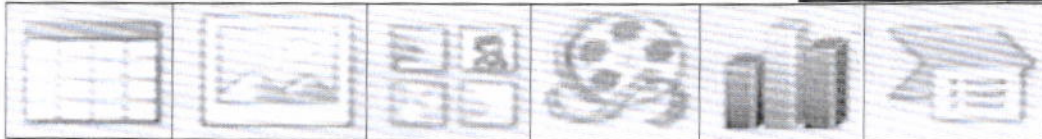
NOTE: Answer (4) Questions Only / Each Question Has (25) Degree

Q1.a. List the two basic components of CPU, explain the functions of each of them briefly.(10%)

b. Draw the figure below using **AutoCAD** commands.The figure start from the point (0,0).(15%)



Q2.a. Explain the name and function of icons in PowerPoint slides.(choose 5 only).



b. Fill the cells **D1 to E5** using **Excel** functions.

| | A | B | C | D | E |
|---|----|----|----|-----------------|-----------------|
| 1 | 2 | 1 | 3 | =AVERAGE(C1:C3) | = INT(C2/2) |
| 2 | -1 | -2 | -3 | = MIN(A1:C3) | = ABS(A2-B2) |
| 3 | 4 | 5 | 6 | = COUNT(B1:C2) | = SIGN(B3) |
| 4 | 5 | 4 | 6 | = SUM(A1:C2) | = SQRT(A4+B4)*2 |
| 5 | 10 | 5 | 12 | = MAX(A3:B5) | = A5-A5/B5-B5 |

Q3.a. Choose the appropriate words from following list to fill the blanks.

(Bridge, WAN, Router, LAN, OS, Firewall, HTTP, Internet Protocols, HTML, FTP).

- is a device that forwards data from one network to another.
- is software or hardware that checks information coming from the Internet.
- are set of rules determines how computers communicate with each other.
- connects a group of users in the different countries.
- is short for Hyper Text Transfer Protocol.

b. Answer the following questions in Microsoft Word application.

- What is the advantage of use **Borders** command?
- In what menu the **Font** command is found?
- How is using the **Merge Cells** command different from **Split Cells** command?
- Explain the purpose of **Sort** command.
- What is the command used for add **Special Characters** to the document?

Q4. a. Convert the following equation to appropriate formula in MS- Excel application. (10%)

$$Z = e^{x.3} \sqrt{\frac{2X^2}{\sqrt{e^{2X}}}} + \sin(X)^2 \cdot \log(X + Y) - \ln|(X.Y)^3|$$

b. What is the shape result from execute following commands in AutoCAD application. Put all the necessary coordinates on the resulting shape. (15%)

Command : Circle
Specify center point for circle:0,0
Specify radius of circle:6

Command: Line
Specify first point :5,-8
Specify next point :12,-8
Specify next point :12,8
Specify next point :5,8
Esc

Command: Line
Specify first point :-5,-8
Specify next point :-12,-8
Specify next point :-12,8
Specify next point :-5,8
Esc

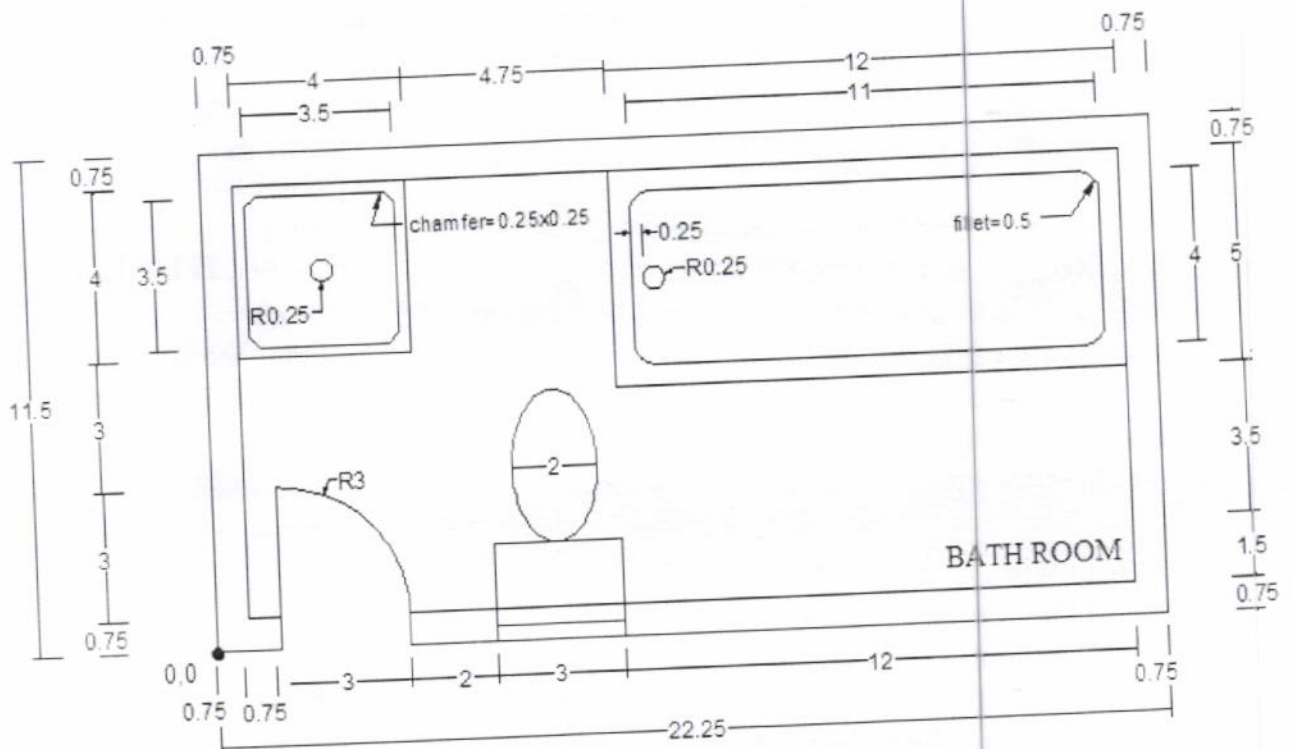
Command: Arc
Specify 1st point :5,8
Specify 2nd point :0,10
Specify end point: -5,8

Command: Arc
Specify 1st point :-5,-8
Specify 2nd point :0,-10
Specify end point: 5,-8

Command : Ellipse
Specify axis end point : 9,6
Specify other end point: 9,-6
Specify distance to other axis :1

Command : Ellipse
Specify axis end point : -9,6
Specify other end point: -9,-6
Specify distance to other axis :1

Q5. Draw the Bath floor plan on board its sides are (25, 15 ft), note that the figure Start from Original point (0, 0). Use Relative Polar Coordinate System. (25%)





Q1.a. (10 mark).

- CPU contains two units:

1. **Control Unit (CU).**
2. **Arithmetic and Logic Unit (ALU).**

1. Control Unit (CU).

This unit control or supervised to all parts of computers such as:

- Control operations for transfers data and instruction from input unit to memory and from memory to output unit.
- Control operations of account executable instructions on ALU.
- Basic work of CU is interpreter the instructions that is mean data oriented to specific location on ALU. for example: if the instruction is (B+C) the B,C values transfers to (Adder) part, if the instruction is (BxC) the B,C values transfers to (Multiplier) part,

2. Arithmetic and Logic Unit (ALU).

This unit execute the following operations:

- Mathematical operations such as: add (+), abstract (-), multiplier (\times), divide (\div).
- Logical operations: this is basic to account comparisons to choose true or false specific case, such as $>$, $<$, $>=$, $<=$, $<>$, $=$ as a result of these comparisons specific instructions may be executable.
- Merge number of simple comparisons by specific tools such as: AND, OR, NOT.

b. (15 mark)

Command: Pol

Enter number of sides:8

Specify center point or [edge]:4,4

Specify radius of circle:4

Command: Pol

Enter number of sides:8

Specify center point or [edge]:12,4

Specify radius of circle:4

Command : ellipse

Specify axis end point of ellipse: 4,2

Specify other end point of axis: 4,6

Specify distance to other axis :1

Command : ellipse

Specify axis end point of ellipse: 0,4

Specify other end point of axis: 8,4

Specify distance to other axis :2

Command : ellipse
Specify axis end point of ellipse: 10,4
Specify other end point of axis: 14,4
Specify distance to other axis :1

Command : ellipse
Specify axis end point of ellipse: 12,0
Specify other end point of axis: 12,8
Specify distance to other axis :2

Command : C
Specify center point for circle:1.5,4
Specify radius of circle:0.5

Command : C
Specify center point for circle:6.5,4
Specify radius of circle:0.5

Command : C
Specify center point for circle:12,1.5
Specify radius of circle:0.5

Command : C
Specify center point for circle:12,6.5
Specify radius of circle:0.5

Q2. a. (10 mark)(choose 5 only).

Table: it is used to insert a table onto an existing slide.

Picture: insert a picture from file to slide.

Clipart: insert clipart to slide including drawing, movies, sounds or stock photography to illustrate a specific concept.

Move and Sound: a great way to add some interest to the Power Pint Presentations is to add sounds and movies to slides.

Charts :are used to represent numeric data graphically. Bar, pie ,line ,area and surface are some of the available type.

Smart art: insert smart art graphic to visually communicate information. such as diagram and organizations.

b. (15 mark)

| D | E |
|----|----|
| 2 | -2 |
| -3 | 1 |
| 4 | 1 |
| 0 | 6 |
| 10 | 3 |

Q3. a. (10 mark).

1.Router 2.Firwall 3.Internet Protocol 4.WAN 5. Http

b.(15 mark)

1.Borders: A border can be placed around any text, paragraph, table cells and pages .

2.Home menu

3.Merge Cells: to make many cells one cell where **Split Cells:** To split one cell to two cells or more cells .

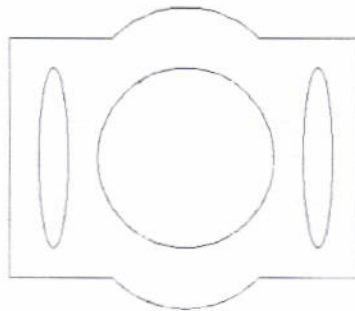
4.Sort: to arrange a list of data ascending (0 to 9, A to Z), or descending (Z to A, 9 to 0) orders.

5.symbol

Q4. a.(10 mark)

$$Z= \exp(X)*((2*X^2)/\sqrt{\exp(2*X)}^{(1/3)}+\sin((X*3.14/180)^2)*\log(X+Y)-\ln(\text{abs}(X*Y)^3)$$

b. (15 mark)



Q5. (25 mark)

Draw walls

Command: Line (enter)

Specify first point: 0, 0

Specify next point:@1.5<0

Specify next point:@0.75<90

Specify next point:@0.75<180

Specify next point:@10<90

Specify next point:@20.750<0

Specify next point:@10<270

Specify next point:@17<180

Specify next point:@0.750<270

Specify next point:@17.75<0

Specify next point:@11.5<90

Specify next point:@22.25<180

Specify next point:@11.5<0 or c

or

Command: Line (enter)

Specify first point: 0, 0

Specify next point:@11.5<90

Specify next point:@22.25<0

Specify next point:@11.5<270

Specify next point:@17.750<180

Specify next point:@0.750<90

Specify next point:@17<0

Specify next point:@10<90

Specify next point:@20.750<180

Specify next point:@10<270

Specify next point:@0.75<180

Specify next point:@0.75<270

Specify next point:@1.5<180 or c

Draw Washbasin

Command: Rec

Specify first corner point:0.75,6.75

Specify other corner Point:@5.656<45

Command:Rectangle (enter)

Command:Chamfer

Specify first chamfer distance for rectangle :0.25

Specify second chamfer distance for rectangle: 0.25

Specify first corner point: 1,7

Specify other cornerpoint:@4.949<45