



University Of Technology
Building and Construction Eng. Dept.
Final Exam – First Attempt – 2010/2011



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

Class: First Year
Time : 3 Hours
Date : 8/6/2011

(NOTE: 1. Answer Only Five Questions \ 2. Each Question has 20 Degree)

Q1- a. Define Computer Software, list their types, explain each type in details.

b. Convert arithmetic expressions to appropriate formulas in QB language. **(choose 5 only).**

$$1. Y = \sqrt{\frac{2 - X^2}{\sqrt{X + (X^2 - 1)^5}}} + \sqrt{\frac{X - 2}{X + 2}}$$

$$2. Y = 3X^2 \log(X + 5) + \frac{2}{3}(e^X - e^{-X})$$

$$3. Y = \frac{\ln|3e^X - 9|}{\sqrt{3X^2}} + \left(\frac{X - 3}{X}\right)^{2+X}$$

$$4. Y = \left(\sin\left(\frac{X}{2}\right) - \tan\left(\frac{X}{2}\right)\right)^2 + 2\cos\left(\frac{X}{2}\right)$$

$$5. Y = \log\left(\frac{1 - e^{-2X}}{1 + X}\right) + \frac{1}{3}X^3 \tan(X)$$

$$6. Y = \sqrt{e^{2X} + X} + \frac{X^2}{X.Y}$$

Q2-a. List steps of execute following commands in Windows Operating System.

Sorting folders, Change file name, Search for files, Select files ways, Check drive capacity.

b. Write a Program for read A, B values and compute S value from following equation.

$$S = \left(\sum_{i=1}^{i=20} \frac{ABI + AI^3 + BI^2}{I!}\right)^2$$

Q3-a. List steps of execute following commands in MS-Office Programs?. **(Choose 5 only).**

1. Add page numbers (Word).

2. Using find and replace feature (Word).

3. Apply Slide Design (PowerPoint).

4. Apply Matrices Multiply (Excel).

5. Using Chart Wizard (Excel).

6. Apply Custom animation (PowerPoint).

b. Fill the blanks with appropriate words in Internet Explorer Application.

1. ----- connects a group of users in the same physical location.

2. ----- a set of rules, that determines, how computers communicate with each other.

3. ----- is copy a files from the internet to computer.

4. ----- is programming Language use to create files in web pages.

5. The extension ----- is used for commercial enterprises.

Q4: Answer the following questions in MS-Excel Application.

1. Write a formula to compute the Sum of cells A1 through B20?

2. Cell A1=5, you select cell B1 and type =2*SIGN (A1) .What is the value store in cell B1?

3. What is the formula used to compute TAN² (60°)?

4. Cell A1=10, cell B1=5, you type = A1-A1/B1-B1, in cell C1, what is the result?

5. What is the formula used to calculate the smallest value in cells B1 through B20?

6. Cell A1=365, you type =INT (A1/2) in Cell B1, what is the value store in cell B1?

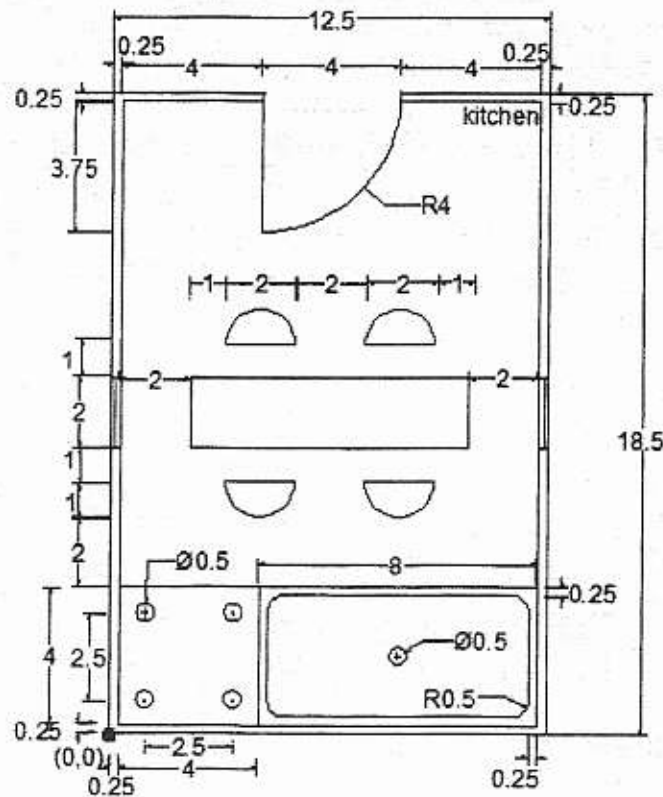
7. Cell A1=9 and cell B1=16, you type =SQRT (A1*B1) ^3 in cell C1 what is the result?

8. Cell A1 =-3 , you type =ABS (A1-9/-A1) in cell B1, What is the value store in cell B1?

9. What is the formula to add 1 to cell D1 and multiply the sum by B5?

10. Cells A1 through A3 contained the values 10, 20, 30, If you type =Average (A1:A3) in cell A4, what is the value store in cell A4?

Q5: Using AutoCAD Program, Draw the kitchen floor plane on board its' sides are (15,20ft). Note that the figure starts from original point (0, 0). Apply: Relative Polar Coordinate System.



Q6-a. Answer the following questions in AutoCAD Program.

1. Explain the purpose of **Lock Layers**?
2. What are the commands used for change pattern **Direction** and **Size** in **Hatch** window?
3. What is the advantage of use **Offset** command?
4. What is the command used for add **Writing** to the drawing?
5. Explain the difference between **Trim** and **Extend** command?
6. How is using the **Break** command different from using **Erase** command?
7. In what toolbar is the **Fillet** button found?
8. What is the function of the **Chamfer** command?
9. Name two types of **Dimensions**?
10. How might **Mirror** command be useful? Give at least one example?

b. Draw the figure results from execute following commands in AutoCAD Program, Put all necessary coordinate in resulting figure.

Command: Rectangle
Specify first corner point: 0, 0
Specify other corner Point: @8,8

Command: Rectangle
Specify first corner point: 2,2
Specify other corner Point: @4,4

Command: Circle
Specify center point for circle: 4,4
Specify radius of circle: 2

Command: Line
Specify first point :4,0
Specify next Point :@4,4
:@-4,4
:@-4,-4
:@4,-4

Command: Line
Specify first point :0,0
Specify next Point :@2,2

Command: Line
Specify first point :8,0
Specify next Point :@-2,2

Command: Line
Specify first point :8,8
Specify next Point :@-2,-2

Command: Line
Specify first point :0,8
Specify next Point :@2,-2