Kafrelsheikh University   **Mathematics II**   Time: 3 Hours
Faculty of Computers& Information   First year
                    The second semester exam. (2016-2017)   Date : 21-5-2017

Answer the following questions

1- (a) Express $\dfrac{5x-4}{x^2-x-2}$ as the sum of its partial fractions.

   (b) Find the sum of the following series

$$\sum_{k=1}^{\infty}\frac{1}{k}=1+\frac{1}{2}+\frac{1}{3}+\frac{1}{4}\ldots\ldots$$

2- Find the Maclaurin series for $f(x)=\sin x$.

   (b) Use the integral test to determine whether or not $\displaystyle\sum_{n=1}^{\infty}\frac{1}{n}$ converge.

3- (a) Find the angle between the vectors
   $\underline{a}=4\underline{i}+3\underline{j}+7\underline{k}$, $\underline{b}=2\underline{i}+5\underline{j}+4\underline{k}$
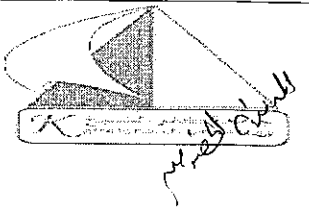
   (b) Find the value of x for the linear equation $\dfrac{1}{2x+1}-\dfrac{3}{4}=\dfrac{7}{2x+1}$

4- Find the general solution of the differential equation
$$y^2\frac{dy}{dx}=\frac{1}{x^3}$$

5- (a) Calculate the inverse of $A=\begin{pmatrix}1 & 2\\ 3 & -5\end{pmatrix}$

   (b) Find the value of x for the linear equation $\dfrac{2x+1}{5}+\dfrac{x-4}{6}=\dfrac{2}{3}$

With my best wished
Prof. Dr. Osama Abo-Seida

Answer the following questions

Q1. Put True (T) or False (F) and correct the false sentences(15 points)

1. *Data mining* means searching and analyzing masses of data to find patterns and develop new information or knowledge.   (   )
2. Social and personal activity is the responsibility of the companies only.   (   )
3. The Fourth Amendment protects a right to privacy from business companies.   (   )
4. History sniffers often downloaded from a website without the user's knowledge.   (   )
5. Government can ask someone to un-encrypt the files for search warrant.   (   )
6. Noninvasive but deeply revealing search our homes and vehicles by physically enter or open them.   (   )
7. Federal laws and regulations require specific privacy protections for financial and medical information.   (   )
8. If the person does not take action, the presumption is that the organization may use the information under the Opt-out policy. (   )
9. Search warrant should be in a specific search area.   (   )
10. Companies Pay for consumer information directly.   (   )

Q2. Give the scientific term for the following definition(15 points)

1. Enforces rights and responsibilities is essential to a complex, robust society and economy for enforcement of agreements and contracts.   (...................)
2. Allows a person to make loan applications, business contracts online, saving time and paper.   (.................)
3. Any information relating to, or traceable to, an individual person.   (...................)
4. Analyzing data to determine characteristics of people most likely to engage in certain behavior.   (...................)
5. The art and science of hiding data in plain sight.   (..................)

Answer only **Two** questions of the following

Q3. (15 Points)

1. Define Secondary use and discuss its methodologies and purpose? (**5 points**)
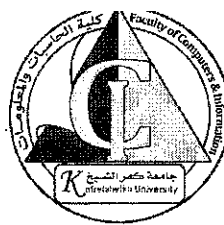2. Compare between Warren and Brandeis and of Thomson in their view of protecting privacy?(**10 points**)

Q4. (15 points)

1- Why store search queries? (**5 points**)
2- Give five reasons why noninvasive but deeply revealing search threaten the fourth amendment concept?(**5 points**)
3- New technologies threaten privacy in many ways; Give five reasons to prove this assumption. (**5 points**)

Q5. (15 points)

1. How Companies build a detailed picture of the person? (**5 points**)
2. Define invisible information gathering and discuss five examples of that concept. (**10 points**)

مع تمنياتى بالنجاح والتوفيق
د/ منى جمال جعفر

Kafrelsheikh University
Faculty of Computers and Information
Department of Computer Science

Final Exam of
Programming Fundamentals (CS141)
2016/2017 (second term)
Date: 28/5/2017
Time: 3hrs

Question (1)   Answer the following *sub-questions* as required at each of them: (12 marks)

(1) Define the *Program*, and What is the Attributes of *Program* ?

(2) What are the stages of the translation of the source program?

(3) When is the array *symmetric*? Explain with drawings

(4) What are the three different actions of the Methods? With brief explain for each one.

Question (2)   Write *only, the term that expresses* each of the following paragraphs: (12 marks)

(1) Is the basal layer required in order to C# operates on Windows.

(2) Are the programming languages which are the proximity of human languages (close to the language that is understood by humans).

(3) Is a program that to translate the source programs which is written by programming language and turning it in one batch to the target program.

(4) Is similar to the programming languages but it is not a programming language, as they contain a mixture of language expressions with the math. symbols and expressions with arithmetic operations.

(5) Is a basic part of a program. It consist of the program's logic, and it can solve a certain problem, eventually take parameters and return a result.

(6) Is used for Increment or decrement such that we place them immediately before the variable, i.e. the new value is calculated first and then the result is returned.

(7) Are an operators that acts on the binary representation of numeric types.

(8) Is square brackets [ ] are used to access element of an array by its position in array.

Question (3)   Answer the following questions as required in each of them: (12 marks)

(a) Write the general structure for (*switch-case, while, and nested for*)

(b) Write for each one of following names **proper** or **improper** as variables with the reason.

@9ahmed   _ali_6   1ahmed $ali_9   FOR   if

(c) Write algorithm in *Pseudo-Code*, and draw *Flowchart* to find the <u>Arithmetic Mean</u> for Ages of (*N*) students in the class.

Question (4)   Write the program by C#.Net for *(a)* , and *only one* of *(b)* or *(c)*   (12 marks)

(a) Use the Methods and Loop in C# to create program to draw Triangles of numbers with Different Size . The size N of numbers will be read from the console. As following example:

```
n = 5                    n = 6
1                        1
1 2                      1 2
1 2 3                    1 2 3
1 2 3 4                  1 2 3 4
1 2 3 4 5                1 2 3 4 5
1 2 3 4                  1 2 3 4 5 6
1 2 3                    1 2 3 4 5
1 2                      1 2 3 4
1                        1 2 3
                         1 2
                         1
```

(b) Write a program that calculates $n!*k!/(n-k)!$ by using a *Method* for given n and k $(1<k<n)$.

(c) Write a program that use the coefficients a, b and c of a quadratic equation: $ax^2 + bx + c$ to calculate and print <u>its real roots</u> (if they exist), check it has real roots or imagine roots.

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Question (5) **Write the output of the following programs in console of C#.Net.** **(12 Marks)**

(A)

```csharp
int a = 16;
int b = 12;

Console.WriteLine(a + (b++));
Console.WriteLine(a + b);
Console.WriteLine(a + (++b));
Console.WriteLine(a + b);
Console.WriteLine( 28 / a);
Console.WriteLine( 28 % b);
Console.WriteLine("{0} + {1} = {2}", a, b, a + b);
Console.WriteLine("{0} * {1} = {2}", a, b, a * b);
```

OUTPUT

(B)

```csharp
Console.Write("n = ");
int n = int.Parse(Console.ReadLine());
Console.Write("m = ");
int m = int.Parse(Console.ReadLine());
int num = n;
long product = 1;
do
{
    product *= num;
    num = num+3;
} while (num < m);

Console.WriteLine("product[n...m] = " + product);
```

OUTPUT
n = 2
m = 6

(C)

```csharp
Console.Write("n = ");
int n = int.Parse(Console.ReadLine());
int sum = 0;
for (int i=0; i<=n; i +=2)
{
    if (i % 5 == 0)
    {
        continue;
        //break;
    }
    sum += i;
}
Console.WriteLine("sum = " + sum);
```
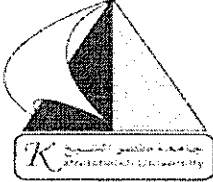
OUTPUT at using *continue*
n = 20

OUTPUT at using *break*
n = 20

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	Academic Year 2016/2017 Level One Social Context of Computing (HUM121) (60 marks) 2 Pages	
Kafrelsheikh University		College of Computers and Information

Date: *31/5/2017*   Time: 180 minutes

Question number one: (30 Marks)

a. Define Globalization, illustrate its major factors?   (5 Marks)

b. Define The Science of Informatics, demonstrate its scope?   (5 Marks)

c. What is meant by: Digital Divide, state some ways for Bridging the Gap
                                                           (5 Marks)

d. What is meant by Online Recruitment Services, indicate its benefits?
                                                           (5 Marks)

e. Differentiate between: Social network analysis (SNA), Socio-Technical Interaction Network (STIN).   (5 Marks)

f. Simply state some ways of using IT in :   (5 Marks)
    1. Customer Care Service,
    2. Solving Crime.

Question number two: (30 Marks)

a. Pint out the benefits of Group Decision Support System (GDSS)?
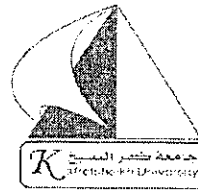   (5 Marks)

b. Simply state some features of weblogs?   (5 Marks)

c. What is meant by Social Computing (SoC), give examples? (5 Marks)

d. What is meant by: Webloging, give examples? (5 Marks)

g. Differentiate between: Technophile people and Technophobic people.

(5 Marks)

h. Simply state some Information technology **tools** used in: (5 Marks)
    1. Medicine,
    2. Banking.

Best Regards

Dr/ Mai R. Ibraheem

Kafrelsheikh University
Faculty of Computers & Information
Subject: Digital Circuits
Time Allowed: 3 Hours
Code: EE102

Full marks: 60
Date: 4/6/2017
Pages (2)

Answer the following questions

Question1:

(A) <u>Represent the following:</u>   (12 degrees)

Number	Representation	
$(246)_{10}$	(	$)_2$
$(1000100011)_2$	(	$)_{10}$
$(0.153)_{10}$	(	$)_8$
$(246.23)_{10}$	(	$)_{Excess-3}$
$(10100101001110)_2$	(	$)_8$
$(10110001101011.11110010)_2$	(	$)_{16}$

(B) Implement a full adder circuit with a decoder and two OR gates.   (4 degrees)

Question2:

(A) Check the following truth table, and then answer the questions following it.   (6 degrees)

X	Y	Z	F
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	0
1	1	1	0

a) Express the Boolean Function $F(X, Y, Z)$ in the sum of minterms form.
b) Express the Boolean Function $F(X, Y, Z)$ in the product of maxterms form.
c) Simplify the function $F(X, Y, Z)$ to its simplest form.
d) Implement the digital circuit corresponding to $F(X, Y, Z)$ using NAND gates only.

(B) Perform the following subtraction (11010 - 1101) using 2's complement.   (3 degrees)

Question3:

(A) Compare *Jk* Flip-Flop and *SR* Flip-Flop.   (3 degrees)

(B) Implement the following Boolean expression: (4 degrees)
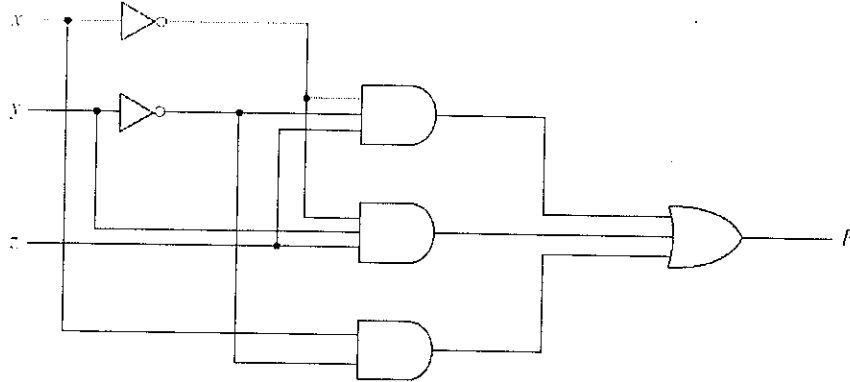
$$F(A, B, C) = (\ (A+BC)' + (AB')'\ )'$$

(C) Prove that NAND is a universal gate. (3 degrees)

Question4:

(A) Re-implement the following circuit after simplification: (5 degrees)

(B) Implement the following Boolean function with a multiplexer: (5 degrees)

$$F(x, y, z) = x'y'z + x'yz' + x'yz + xy'z'$$

Question5:

(A) Construct a 4-to-16-line decoders with two 3-to-8-line decoders and enable input. Use block diagrams for the components. (5 degrees)

(B) Implement the following Boolean function (With *NAND gates only*): (4 degrees)

$$F = XY + X'Y' + Y'Z$$

(C) Simplify the following Boolean function $F(w, x, y, z) = \Sigma(1, 3, 7, 11, 15)$ which has the don't-care conditions $d(w, x, y, z) = \Sigma(0, 2, 5)$ into: (6 degrees)
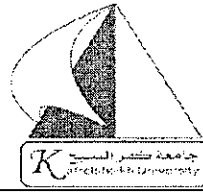
(a) Sum-of-products form.

(b) Products-of-sum form.

Good

Luck

Kafrelsheikh University
Faculty of Computers & Information
Subject: Interpersonal Communication
Time Allowed: 3 Hours
Code: HUM132

Full marks: 60
Date: 7 / 6 /2017
Pages (2)

Answer the following questions

Question1:

Choose the correct answer: (5 degrees)

1. The means by which the message is expressed to the receiver...........

   a. context b. channel c. feed back d. noise

2. You are allowed to use abbreviations in........... page of the report.

   a. abstract b. introduction c. conclusion d. title

3. .... communication occurs when one person communicates the same message to many people at once

   a. Public b. Small group c. Mass d. Impersonal

4. .... needs are the most basic level in Maslow's hierarchy.

   a. safety b. physical c. belonging d. self-esteem

5. A telephone call may cause........... barriers.

   a. semantic b. physical c. process d. psychosocial

Question2:

Mark the following sentences with True or False and correct the false ones: (10 degrees)

1. The abstract page in report shouldn't contain page number. ( )
2. Impersonal communication is defined as communication with the self. ( )
3. Majority of our communication is through the non-verbal channels. ( )
4. Encoder is the person determines whether your message was understood and appropriate. ( )
5. Posture is one of verbal communication forms. ( )

Question3:

Write the difference between: (15 degrees)

1. Self-Actualization and self-esteem needs of communication.
2. Interactive and transactional model of communication.
3. Instructions and description pattern of information.

Question4:

Explain the following: (20 degrees)

1- Basic steps for a successful oral presentation.
2- Non-verbal communication.
3- A Communication continuum.
4- Forms of communication.

Question5:
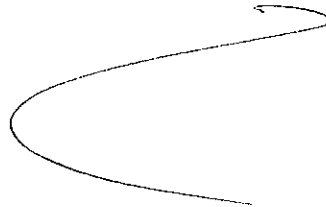
Write Short notes on: (10 degrees)

BLUF – intercultural communication – linear model of communication – a good plain English – physical barriers of communication – message – extempore speaking – barriers of written communication – jargon – proxemics.

Good

Luck

D. Diana Mosa

Kafrelsheikh University
Faculty of Computers and Information
Department of Computer Science

Final Exam of
Computing Economics (HUM133)
2016/2017 (second term)
Date: 11/6/2017
Time: 3hrs

Question (1)

Answer the following *sub-questions* as what is required at each of them: (1⁵ marks)

(1) Define A <u>Price</u> as in "Merriam-Webster Dictionary" ?

(2) Define A <u>Monopoly</u> ?

(3) Define A <u>Monopolistic Competition</u> ?

(4) Define A <u>flexible-price policy</u> ?

(5) Define A <u>Cloud Computing</u> ?

(6) What is the points for Determinants of supply ?

(7) What is the points of Establishing the Base Price ?

(8) What should governments do about Monopolies ?

Question (2)

Choose the correct answer among multiple choices in the follows, *only write the number of question and the correct answer*:
(14 marks)

(1) The externality which occurs because as new firms enter, other firms lose customers and profit.

  (a) The product-variety externality   (b) The business-stealing externality   (c) The positive externality   (d) Nothing

(2) Is detrimental to consumer welfare in the long run because once the competitors exit the market, the predators raises prices with the intention of collecting supra-normal profits.

  (a) Price competition   (b) Base pricing   (c) Predatory pricing   (d) Nothing

(3) <u>Tastes and preferences</u> is one of the determinants of .

  (a) Supply   (b) Demand   (c) Predatory pricing   (d) Nothing

(4) <u>Number of potential consumers</u> is one of the determinants of .

  (a) Demand   (b) Predatory pricing   (c) Supply   (d) Nothing

(5) Setting a high price for a new product to capitalize on high demand.

  (a) Base pricing   (b) Skimming pricing   (c) Predatory pricing   (d) Penetration pricing

(6) Setting a low initial price to encourage higher distribution and exposure.

  (a) Penetration pricing   (b) Skimming pricing   (c) Base pricing   (d) Predatory pricing

(7) Its vendors offers a development environment to application developers, also it including operating system, programming-language execution environment, database, and web server.

  (a) Utility Computing   (b) IaaS   (c) PaaS   (d) SaaS

Kafrelsheikh University
Faculty of Computers and Information
Department of Computer Science

Final Exam of
Computing Economics (HUM133)
2016/2017 (second term)
Date: 11/6/2017
Time: 3hrs

Question (3)

Write *only, the term that expresses* each of the following paragraphs: (14 marks)

(1) Is a table that shows the relationship between the price of a good and the quantity supplied.

(2) Is defined as "The set of controllable marketing variables that marketers employ to obtain the desired responses from their target markets".

(3) Are those who have received enough training to become licensed or certified in a particular trades field.

(4) Is one in which all customers are charged the same prices, quoted to them by means of signs and price tags without deviations.

(5) Refers to price adjustments required because of the location of the customer for delivery of products, whereas, the manufacturer assumes responsibility for the cost and management of product delivery.

(6) Is a systematic approach to estimating the strengths and weaknesses of alternatives that satisfy transactions, activities or functional requirements for a business.

(7) Is a strategic technique employed to make money yield the highest interest-yielding value for any amount spent.

Question (4)

Answer the following questions as required in each of them: (9 marks)

I. Write the reasons for arising the monopolies.

II. Write short notes about Service models of Cloud Computing.

III. Write about (The Defense of Advertising) in the Debate over Advertising.

Question (5)   (9 marks)

(a) Prove the break-even point (BEP) in terms of Unit Sales (X): $X = \dfrac{TFC}{P - V}$

(b) Calculate the *present value* of money at the following case:

One hundred Euros will to be paid after 1 year from now, where the expected *rate* of return is 6% per year, is worth in today's money.

(c) Calculate the *future value* of money at the following case:

The current value of money now is equal 92 Euros, where the expected *rate* of return is 5% per year. Compute the value of money will to be paid after 3 year from now.

With best wishes;
Dr. Osama M. Abu Zaid

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Answer the following questions

1. Three players on a reality TV show are brought to the center of a large, flat field with the following three displacements:

$\vec{A}$: 72.4 m, 32.0° east of north $\vec{B}$: 57.3 m, 36.0° south of west $\vec{C}$: 17.8 m due south

these displacements lead to the point in the field where the key to a new car is buried. To win faster than the other what one can calculate? **(10 degree)**

2. Find the magnitude of $\vec{D} + \vec{E} + 2\vec{F}$ **(10 degree)**

   If you know that $\vec{D} = 8\hat{i} + 3\hat{j} - 2\hat{k}$ $\vec{E} = 4\hat{i} - 5\hat{j} + 6\hat{k}$ $\vec{F} = 2\hat{i} + 7\hat{j} - 1\hat{k}$

3. Find the angle between the vectors   **(10 degree)**

$$\vec{A} = 3\hat{i} + 2\hat{j} - 1\hat{k} \qquad \vec{B} = 5\hat{i} + 3\hat{j} + 1\hat{k}$$

4. Prove that $x - x_0 = \left(\dfrac{v_{0x} + v_x}{2}\right)t$ **(10 degree)**

5. You throw a ball upward from the roof of a building. The ball leaves your hand at a point with an upward speed of 15.0 m/s; the ball is then in free fall. On its way, back down, it just misses the railing. Find (a) the ball's position and velocity 1.00 s and 4.00 s after leaving your hand; (b) the ball's velocity when it is 5.00 m above the railing; (c) the maximum height reached; (d) the ball's acceleration when it is at its maximum height. **(10 degree)**

6. Rover is exploring Mars. The stationary Mars lander is the origin of coordinates; the rover has x- and y-coordinates that vary with time:

$$x = 2.0 \text{ m} - (0.25 \text{ m/s}^2)t^2 \qquad y = (1.0 \text{ m/s})t + (0.025 \text{ m/s}^3)t^3$$

(a) Find the rover's coordinates and distance from the lander at $t = 2.0$ s. (b) Find the rover's displacement and average velocity vectors for the interval $t = 0.0$ s to $t = 2.0$ s. (c) Find a general expression for the rover's instantaneous velocity vector $\vec{v}$. Express $\vec{v}$ at $t = 2.0$ s in component form and in terms of magnitude and direction. **(10 degree)**

End of the test   With my best wishes ·   Dr. Mahmoud Saad

امتحان دور يونيو ٢٠١٧

يوم الأربعاء الموافق ٢٠١٧/٦/١٤ من ١٠ صباحا حتى ١٢ ظهرا

==

-أجب عن **اثنين فقط من الأسئلة الثلاثة الأتية على أن يكون الأول من بينها:**

السؤال الأول: أ- اذكر دون شرح حقوق الانسان التى وردت في الكتاب المقدس؟

ب- وضح ما المراد بـ "القرآن الكريم"؟

السؤال الثانى: وضح معنى "الحقوق الانسانية المجردة" التى تضمنها القرآن

الكريم، ثم تكلم عن الحقوق الأخرى المتفرعة عنها في مجالات

"الحياة والعقيدة والسلام"؟

السؤال الثالث: اكتب في الحقوق الاجتماعية والسياسية التى وردت الاشارة اليها

في القرآن الكريم؟

مع خالص تمنياتنا بالنجاح والتفوق &