

كلية العلوم جامعة بنها

قسم الرياضيات- ساعات معتمدة- الفصل الدراسي الثاني 2013م

أالسئلة + نموذج الاجابة

المادة : حاسب 2

كود المادة: mg40

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تاريخ الامتحان 13-6-2013 الخميس

BANHA UNIVERSITY

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The Final Exam 2013 Level one 40 mg Computer (2)

Answer the questions.

Question 1. Write the general form for (if else – while - switch- for) statement and state the errors in the following program, and then re-write it in correct form.

```
≠ include <iostream>
```

```
Int main ( );
```

```
{ int x, y;
```

```
if x<y min=x
```

```
++y;
```

```
else min=y;
```

```
cout << "min = < min << "y = << y ;}
```

Answer Question 1. General forms

(1)-

if (condition)

statement1;

else statement2;

(2)-

for (initialization; condition; update){

statement 1;

statement 2;

statement 3;

statement N;}

(3)-

while (condition)

{statement1; statement 2; ...statementn;}

(4)-

switch (expression){

case 1: statement; break;

case 2: statement2; break;

.

.

.

case n: statement n; break;

default; statement 0;}

program in correct form

≠ *include <iostream.h>*

Int main ()

```

{ int x, y;
if ( x<y ) min=x;

++y;

else min=y;

cout << "min = " << min << "y = " << y ;}}

```

Question 2. Choose the correct answer for each of the following

1 -All program variables should be declared before usage

(i) Yes (ii) NO

2 -Given: int i=10, sum=0; what is the value of variable "sum" after executing i%=-1;

Sum +=++i;

(i) 10 (ii) 1 (iii) 11

1- Given : for (i=0.1 ; i=1.0 ; i+=0.1) cout << i; Is it correct statement

(i)Yes (ii) NO

4- How many times break statement is executed

for (i=0 ; i<= 3; i++) break;

(i) 1 (ii) 4 (iii) 3

5-The object cin is defined in the header file

(i) Math.h (ii) iostream.h (iii) string.h

6-The result of this operation (27%6*(3+(6*3/(3)))) is

(i) Zero (ii) 27 (iii) 27

7-Any C++ program starts execution at the function

2 main () (ii) mail () (iii) ≠ include < ... >

8- Is it possible to write more than one C++ statement on the same line.

- (i) Yes (ii) No

9- The body of **while** statement is executed at least once regardless of the Status of its condition.

- (i) Yes (ii) No

Answer Question 2.

Choose the correct answer for each of the following

1 -All program variables should be declared before usage

- (ii) Yes

2- Given: int i=10, sum=0; what is the value of variable “sum” after executing i%=1;

Sum +=++I;

- (iii) 11

2- Given : for (i=0.1 ; i=1.0 ; i+=0.1) cout << I; Is it correct statement

- (ii) NO

4- How many times break statement is executed

for (i=0 ; i<= 3; i++) break;

- (i)- 1

5-The object cin is defined in the header file

- (ii) iostream.h

6-The result of this operation (27%6*(3+(6*3/(3)))) is

- (iii) 27

7-Any C++ program starts execution at the function

- (i) main ()

8- Is it possible to write more than one C++ statement on the same line.

(i)- Yes

9- The body of **while** statement is executed at least once regardless of the Status of its condition.

(i)-Yes

Question 3. Write C++ program to compute and prints the real roots of the quadratic equation $Ax^2 + Bx + C = 0$

Answer Question 3. C++ program is

```
#include <iostream.h >
#include <cmath.h >

Int main ()
{ float a,b,c;

cout << "Enter coefficients of quadratic equation " ;

cin >> a >> b >> c;

if (a = 0){ cout << "This equation is not quadratic equation " << \n ;
return (0);}

double d,X1,X2;      d=b*b-4*a*c;

if (d < 0){ cout << "The has no real roots " << \n ; return (0);}

X1=(-b+sqrt(d))/2*a;   X2=(-b-sqrt(d))/2*a;

cout << "the roots are" << X1 << " " << X2 << endl; return (0); }
```

Question 4. Write the following equation as a C++ expression and state the order of evaluation of the binary operators:

$$\frac{(m+1)}{n^2} + \sqrt{n} + e^m + \sin(x^3)$$

Answer Question 4. (1)

Equation as a C++ expression

$$((m+1)/\text{pow}(n,2)) + \text{sqrt}(n) + \text{Exp}(n) + \sin(\text{pow}(x,3))$$

حيث ينفذ اولا الاقواس من الداخل الى الخارج اولا حسب الاتي الاس اولا ثم الضرب او القسمة حسب الظهور من اليسار الى اليمين ثم الجمع او الطرح حسب الظهور من اليسار الى اليمين حسب الظهور.

Question 4. (2)

Describe the output from this program

```
# include < iostream.h>

Int main()

{ int i, j;

for ( i=1;i<=5;i++){

for ( j=1; j<=i; j++) cout<<i+j;

cout <<endl;}
```

Answer Question 4. (2)

2

3 4

4 5 6

5 6 7 8

6 7 8 9 10