Structured Programming

Test 1, 29.10.2015, Group: A

*Each question has exactly **one correct** answer.*

Name: _____

ID: _____

1. What will be the value of x after the execution of the following code segment?

```
int x, a, b;
int x = scanf("%d%d", &a, &b);
```

   (a) `0`

   (b) `1`

   (c) `2`

   (d) `3`

2. Which of the following expressions **outputs 0.75** on the standard output if the variables are declared as `int a = 3, b = 4`?

   (a) `printf("a/b=%d", a/b)`

   (b) `printf("a/b=%.2f", a/b)`

   (c) `printf("a/b=%0.2f", (float)a/b)`

   (d) `printf("a/b=%0.2f", (float)(a/b)`

3. What will be the output after execution of the following code segment?

```
#include<stdio.h>
int main (){
    for (printf ("-1"); printf ("%d", printf("01")); printf ("3"))
        break;
    return 0;
}
```

   (a) `-1012`

   (b) `-10123`

   (c) `-1`

   (d) `-1011`

4. What will be the output after execution of the following code segment?

```
int x, a, b;
int x = scanf("%d%d", &a, &b);
```

   (a) `y = 1`

   (b) `y = 2.25`

   (c) `y = 1.00`

   (d) `y = 001`

5. What will be the value of x after the execution of the following code segment?

```
#include<stdio.h>
int main (){
    for (printf ("-1"); printf ("%d", printf("01")); printf ("3"))
        break;
    return 0;
}
```

(a) `0`

(b) `1`

(c) `-1`

(d) `9`

6. Which of the following expressions will declare an array of 5 integers?

(a) `pole int[5];`

(b) `int pole[];`

(c) `int pole[] = {1, 2, 3, 4, 5};`

(d) `array int[5];`

7. What will be the output after the execution of the following code segment?

```
int x = 23;
switch(x) {
  case 1: printf("1"); break;
  case 23: printf("2"); break;
  case 123: printf("3"); break;
}
```

(a) `123`

(b) `1`

(c) `23`

(d) `2`

8. What is the result from the execution of the following code segment?

```
int a, b, d = 2; float c = 0;
for(a = 5, b = a--; a > 0, b < 10; a--, b++) c += 1 / d;
printf("%3.1f\n", c);
```

(a) 2.5

(b) 0.0

(c) 2.0

(d) 3.0

9. What will be the output after the execution of the following code segment?

```
if(1 <= x <= 2) printf("YES");
else printf("NO");
```

   (a) YES

   (b) NO

   (c) cannot predict, will depend on value of variable x

   (d) the code will produce a syntax error

10. Which from the following expressions does not result in 3.5 if the variables are declared as `int a=7, b=2;`

   (a) `a/(float)b`

   (b) `a*1./b`

   (c) `float(a)/b`

   (d) `(float)(a/b)`

Answer Key for Exam A

1. What will be the value of x after the execution of the following code segment?

```
int x, a, b;
int x = scanf("%d%d", &a, &b);
```

(a) 0

(b) 1

(c) 2

(d) 3

2. Which of the following expressions **outputs 0.75** on the standard output if the variables are declared as `int a = 3, b = 4`?

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```
#include<stdio.h>
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(a) -1012

(b) -10123

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(d) -1011

4. What will be the output after execution of the following code segment?

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(a) `0`

(b) `1`

[(c)] `-1`

(d) `9`

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(a) `pole int[5];`

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  case 123: printf("3"); break;
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```

(a) `123`

(b) `1`

(c) `23`

[(d)] `2`

8. What is the result from the execution of the following code segment?

```
int a, b, d = 2; float c = 0;
for(a = 5, b = a--; a > 0, b < 10; a--, b++) c += 1 / d;
printf("%3.1f\n", c);
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(a) 2.5

[(b)] 0.0

(c) 2.0

(d) 3.0

9. What will be the output after the execution of the following code segment?

```
if(1 <= x <= 2) printf("YES");
else printf("NO");
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[(a)] YES
(b) NO
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(d) the code will produce a syntax error

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(a) `a/(float)b`
(b) `a*1./b`
(c) `float(a)/b`
[(d)] `(float)(a/b)`