Structured Programming

Test 2, 14.12.2015, Group: A

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

Name: _____

ID: _____

1. Which of the following is the correct declaration of twodimensional vector (matrix) of max 30 integers?
   (a) `int pole[3*10];`
   (b) `int pole[30];`
   (c) `int pole[6,5];`
   (d) `int pole[5][6];`
2. Given the function prototype: `float ab(float, float, int);` for some recursive function named 'ab', which of the following answers is a VALID call of the function?
   (a) `float x = ab(3.0f, 5.2f);`
   (b) `float x = ab(float 5, float 3, int 8);`
   (c) `float x = ab(3, 5, 7);`
   (d) `float x = float ab(5, 6, 7);`
3. Which of the following declaration is **not** a valid function prototype:
   (a) `int func(char,char);`
   (b) `double funcion;`
   (c) `void func();`
   (d) `float funcion();`
4. What will be the output after execution of the following code segment?

```
char *t = "prezime";
t += 4;
printf("%s", t);
```

   (a) nothing, it's compilation error
   (b) `ime`
   (c) `prezime`
   (d) `trezime`
5. What will be the output after execution of the following code segment?

```
int a = 3, *b, *c;
b = &a; c = b; *c = 5;
printf("%d\n", *b);
```

   (a) `1`
   (b) `3`
   (c) `5`
   (d) can not be determined

6. Which is the correct expression for accessing the last element of the array defined as: `int elements[] = { 5, 4, 3, 2, 1 };`

   (a) `*(elements + 4 * sizeof(int))`

   (b) `elements + 5`

   (c) `*(elements + 4)`

   (d) `elements[5]`

7. What will be the value of `a` after the execution of the following code segment?

```
int a = 0; char *word = "deleveled";
char *begin = word, *end = word + strlen(word) - 1;
while(begin++ <= end--) a += (*begin == *end);
```

   (a) `5`

   (b) `4`

   (c) `3`

   (d) undefined

8. What will be the value of `len` after the execution of the following code segment?

```
char a[] = { '3', '2', '1', 0 , '\n', '\0'}; int len = strlen(a);
```

   (a) `5`

   (b) `3`

   (c) `4`

   (d) undetermined

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

```
int f (int a) {
    printf("%d\t", a * a); if (a > 1) f(a - 2);   printf("%d\t", a * a);
}
int main() { f(7); return 0; }
```

   (a) `49 25 9 1 1 9 25 49`

   (b) `49 25 9 1`

   (c) `1 9 25 49`

   (d) could not be determined

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

```
void main() {
    int niza[7] = {1, 2, 3, 4, 5, 6, 7}, i = 0, n=7;
    *(niza+i) *= *(niza + n - 1 - i); printf("%d\n", *(niza));
}
```

   (a) `1`

   (b) `7`

   (c) `8`

   (d) could not be determined

Answer Key for Exam A

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   [(c)] `float x = ab(3, 5, 7);`

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3. Which of the following declaration is **not** a valid function prototype:

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   [(a)] `5`

   (b) `4`

   (c) `3`

   (d) undefined

8. What will be the value of `len` after the execution of the following code segment?

```
char a[] = { '3', '2', '1', 0 , '\n', '\0'}; int len = strlen(a);
```

   [(a)] `5`

   (b) `3`

   (c) `4`

   (d) undetermined

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int main() { f(7); return 0; }
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   (c) `1 9 25 49`

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void main() {
    int niza[7] = {1, 2, 3, 4, 5, 6, 7}, i = 0, n=7;
    *(niza+i) *= *(niza + n - 1 - i); printf("%d\n", *(niza));
}
```

(a) `1`

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(c) `8`

(d) could not be determined