

**SUBIECTUL I**

(20 de puncte)

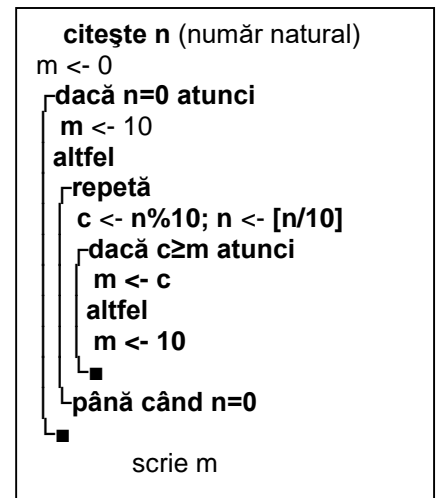
1. d
2. d
3. a
4. b
5. c

**SUBIECTUL al II-lea**

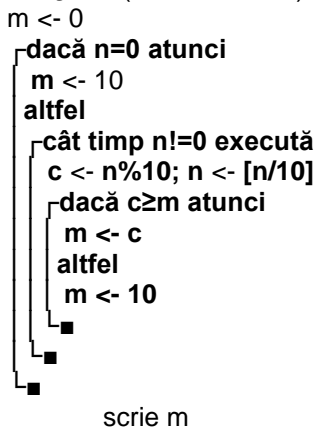
(40 de puncte)

1. a) 10  
b) 1000, 1100, 1110, 1111  
c)

```
main.cpp x
1  #include <iostream>
2  using namespace std;
3  int n,m,c;
4  int main()
5  {
6      cin>>n;
7      m=0;
8      if (n==0)
9          m=10;
10     else
11         do {
12             c=n%10;
13             n=n/10;
14             if (c>=m)
15                 m=c;
16             else
17                 m=10;
18         } while (n!=0);
19     cout<<m;
20     return 0;
21 }
22
```



- d)  
**citește n** (număr natural)



2.

```

struct sera
{
    int numar;
    struct
    {
        char denumireStiintifica[21];
        char denumirePopulara[21];
    } specia[101];
} s;

```

3.

```

main.cpp x
1 #include <iostream>
2 using namespace std;
3 int i,j,n,p,a[100][100];
4 int main()
5 {
6     cin>>n;
7     for (i=1;i<=n;i++)
8         for (j=1;j<=n;j++)
9             cin>>a[i][j];
10    while (n!=0)
11    {
12        p=1;
13        for (i=1;i<=n;i++)
14            {for (j=1;j<=n;j++)
15                {if (i==j)
16                    p=p*a[i][j];
17                }}
18        cout<<p<<" ";
19        n--;
20    }
21    return 0;
22 }
23

```

**SUBIECTUL al III-lea**

**(30 de puncte)**

1.

```

void patrate (int x, int y)
{
    int s=0,i,j;
    for (i=x;i<=y;i++)
        {for (j=1;j<=i/2;j++)
            if (j*j==i)
                {
                    s=s+i;
                    cout<<i<<" ";
                }
        }
    cout<<"="<<s;
}

```

2.

```

main.cpp x
1 #include <iostream>
2 #include <cstring>
3 using namespace std;
4 int i,n;
5 char s[101];
6 int main()
7 {
8     cin.get(s,101);
9     char *c=strtok(s, " ");
10    while (c)
11    {
12        i=0;
13        if (islower(c[0])==true)
14            c[0]=c[0]-32;
15        for (i=1;i<strlen(c);i++)
16            if (isupper(c[i])==true)
17                c[i]=c[i]+32;
18        cout<<c<<' ';
19        c=strtok(NULL, " ");
20    }
21    return 0;
22 }
23

```

3.

```

main.cpp x bac.txt x
1 #include <iostream>
2 #include <fstream>
3 using namespace std;
4 ifstream f("bac.txt");
5 int i,x,y,k;
6 int main()
7 {
8     f>>x; k=1;
9     while (f>>y)
10    {
11        if (x==y)
12            k++;
13        else {
14            cout<<x<<" "<<k<<" ";
15            k=1;
16        }
17        x=y;
18    }
19    cout<<x<<" "<<k;|
20    return 0;
21 }
22

```