Computer programming (2016-17)
Group Quiz 2

Analyse the progam below and answer the questions (10 marks)

```c
#include<stdio.h>

typedef struct
{
  int day;
  int month;
  int year;
}date;

typedef struct person
{
  char name[10];
  date birthday;
  float salary;
}emprec;

void printout(emprec);
int highest(emprec rec[],int);

void main( )
{
  int j;
  emprec record[]={{"Arun",10,8,75,4000.00}, {"Vinod",3,1,75,3000.00},
{"Tanuj",21,1,75,5500.00}};
```

_____   **//function call**

```c
  printout(record[j]);
return;
}

int highest(emprec record[],int n)
{
  float t;
  int i,j=0;
  t=record[0].salary;
  for(i=1;i<n;i++)
{
if(t<record[i].salary)
{
t=record[i].salary;
j=i;
      }
 }
  return(j);
}


void printout(emprec per)
{
```

```
printf("Employee details:\nName: %s\n Birthdate:%d:%d:%d\n Salary: %f\n",
per.name, per.birthday.day,per.birthday.month,per.birthday.year, per.salary);
return;
}
```

a) Write the C statement for function call.   (2 mark)

   j=highest(record,3);

b) What is the output of this program?   (2 marks)

   Employee details:
   Name: Tanuj
   Birthdate: 21.1.75
   Salary: 5500.000000

c) Assume another function **oldest** which determines the oldest person amongst **n** persons. Assume all persons are born in the same year. The function definition is:

```
_____oldest(_____)              //Function header
{
int i;
emprec temp=record[0];

for(i=1;i<n;i++)
{
if(temp._____ >record[i]._____)          //Line 1, compare months
    temp=record[i];
else
{
if(_____==_____)        //Line 2;if months are equal
{if(temp._____>record[i]._____)        //Line 3,compare days
    temp=record[i];
}
}
}
printf("The oldest person is %s",_____);}    //Line 4
```

i)Complete function header   (2 marks)

   void oldest(emprec record[ ], int n)

ii) Complete Lines 1,2,3,4.   (4 marks)

   Line 1: if(temp.birthday.month>record[i].birthday.month)
   Line 2: if(temp.birthday.month == record[i].birthday.month)
   Line 3: if(temp.birthday.day>record[i].birthday.day)
   Line 4: printf("The oldest person is %s", temp.name);