8.BMI

Aim:

To calculate the body mass index of the individual students using c program.

Algorithm:

Step 1:Start the program.

Step 2:Get the number of students.

Step 3:Get the height and weight of persons in two-dimensional array

Step 4:calculate Body Mass Index

Step 5:Stop the program.

Program coding:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int stu[100][2];
int index[100];
int i,n;
float h;
clrscr();
printf("enter the no of students:");
scanf("%d",&n);
for(i=0;i<n;i++)
{printf("enter the height and weight of student %d:",i+1);
scanf("%d%d",&stu[i][0],&stu[i][1]);
h=(float)(stu[i][0]/100.0);
index[i]=(float)stu[i][1]/(float)(h*h);
}
printf("\n stu no.\t height\tweight\tBMI\tresult");
for(i=0;i<n;i++)
{
```

```
printf("\n %d\t%d\t%d\t%d\t",stu[i][0],stu[i][1],index[i]);
if(index[i]<15)
printf("sTARVATION\n");
else if(index[i]>14&&index[i]<18)
printf("underweight\n");
else if(index[i]>17&&index[i]<26)
printf("healthy\n");
else if(index[i]>25&&index[i]<31)
printf("over weight\n");
else if(index[i]>30&&index[i]<36)
printf("obese\n");
else
printf(" severe obese\n");
}
getch();
}
```

Output: