LAMPIRAN C
PROGRAM BAHASA C PENGHITUNG KECEPATAN DENYUT JANTUNG

```c
#include <mega16.h>
#include <delay.h>
unsigned int  i,j,HR,satuan,puluhan,ratusan,hitung1,hitung2,t;
unsigned char bil[10] = {0x3f,0x06,0x5b,0x4f,0x66,0x6d,0x7d,0x07,0x7f,0x6f};
void main(void)
{
PORTA  = 0x00;
DDRA   = 0xFF;
PORTB  = 0x00;
DDRB   = 0x00;
PORTC  = 0x00;
DDRC   = 0xFF;
PORTD  = 0x00;
DDRD   = 0x00;

periksa1:
if (PIND.3 == 0)
{goto periksa2;}
 else
{ goto periksa1;}

periksa2:
if (PIND.3 == 1)
{goto perioda;}
 else
{goto periksa2;}
```

```
perioda:
hitung1 = 0;
hitung2 = 0;
t=0;
for( i = 0 ; i < 4 ; i ++ )
 {
while(PIND.3==1)
{hitung1++;
delay_us(100);}

while(PIND.3 == 0)
{hitung2++;
delay_us(100);}

 t = hitung1+hitung2;
}
HR      = 2400000/t;
ratusan  = HR/100;
puluhan = ( HR /10)%10;
satuan   = HR %10;

  for(j = 0 ; j < 5000 ; j++)
    {
PORTA = 0x01;
PORTC = bil[ratusan];
delay_us(200);
PORTA = 0x02;
PORTC = bil[puluhan];
delay_us(200);
```

```c
PORTA = 0x04;
PORTC = bil[satuan];
  delay_us(200);
}

PORTA=0x00;
PORTC=0x00;
goto periksa1;
}
```