

Source code for problem 8:

```
clc;
close all;
clear all;
f = 20;
t = 1/f;
t1 = 0:t/100:1;
a = t;
y = a*sin(2*pi*f*t1);
subplot(2,1,1);
plot(t1,y);
xlabel('t');
ylabel('Amplitude');
grid on;

Am = 1;
fm = 5;
t = 0:0.001:1;
wm = 2*pi*fm;
msg_sig = Am*sin(wm*t);
subplot(2,1,2);
plot(t,msg_sig);
xlabel('t');
ylabel('Amplitude');
grid on;
```

Output:

