5)

```
close all;
clc;
f=5;
f2=10;
x=[1 1 0 0 1 0 1 0] % input signal ;
nx=size(x,2);
i=1;
while i<nx+1
t = i:0.001:i+1;
if x(i)==1
ask=sin(2*pi*f*t);
fsk=sin(2*pi*f*t);
psk=sin(2*pi*f*t);
else
ask=0;
fsk=sin(2*pi*f2*t);
psk=sin(2*pi*f*t+pi);
end
subplot(3,1,1);
plot(t,ask);
hold on;
grid on;
axis([1 10 -1 1]);
title('Amplitude Shift Key')
subplot(3,1,2);
plot(t,fsk);
hold on;
grid on;
axis([1 10 -1 1]);
title('Frequency Shift Key')
subplot(3,1,3);
plot(t,psk);
hold on;
grid on;
axis([1 10 -1 1]);
title('Phase Shift Key')
i=i+1;
end
```

```
x =

     1     1     0     0     1     0     1     0

fx >>
```