```
1  ////////////To generate basic continuous signal gerations
2  clc;
3  clear;
4  //ieee(1); //to add floating point exception mode
5  xdel(winsid()); //Deletes all graphics windows
6  t = 0:0.001:1; //Continuous time, t
7  f = 5; //Frequency
8  a = 5; //Amplitude
9  pi = %pi; //%pi is defined for pi
10 //Sine Wave
11 x1 = a*sin(2*pi*f*t);
12 subplot(331);
13 plot(t,x1) //to plot vertical lines (MATLAB STEM Eq.)
14 title('Sine Wave','color','red','fontsize',3);
15 xlabel("Continuous Time, t","fontsize",2,"color","black");
16 ylabel("Amplitude, x(t)","fontsize",2,"color","black");
17 //Cosine wave
18 x2 = a*cos(2*pi*f*t);
19 subplot(332);
20 plot(t,x2);
21 title('Cosine Wave','color','red','fontsize',3);
22 xlabel("Continuous Time, t","fontsize",2.5,"color","black");
23 ylabel("Amplitude, x(t)","fontsize",2.5,"color","black");
24 //Square Wave
25 x3=a*squarewave(2*pi*f*t);
26 subplot(333);
27 plot(t,x3);
28 title('Square Wave','color','red','fontsize','3');
29 xlabel("Continuous Time,t","fontsize",2,"color","black");
30 ylabel("Amplitude,x(t)","fontsize",2,"color","black");
31 //Ramp wave
32 x4 = a*t;
33 subplot(334);
34 plot(t,x4);
35 title('Ramp Wave','color','red','fontsize',3);
36 xlabel("Continuous Time, t","fontsize",2.5,"color","black");
37 ylabel("Amplitude, x(t)","fontsize",2.5,"color","black");
38 //Exponential wave
39 x5 = exp(t);
40 subplot(335);
41 plot(t,x5);
42 title('Exponential Wave','color','red','fontsize',3);
43 xlabel("Continuous Time,t","fontsize",2,"color","black");
44 ylabel("Amplitude,x(t)","fontsize",2,"color","black");
45 //Unit Step Wave
46 x7 = ones(t);
47 subplot(336);
48 plot(t,x7);
49 title('Unit Step Wave','color','red','fontsize','3');
50 xlabel("Continuous Time,t","fontsize",2,"color","black");
51 ylabel("Amplitude,x(t)","fontsize",2,"color","black");
52 //Sinc Wave
53 t1 =-50:50;
54 f1=0.0625;
55 y =sinc(2*%pi*t1*f1);
56 subplot(337);
57 plot(t1,y,2);
58 title('Sinc Wave','color','red','fontsize','3');
59 xlabel("Continuous Time,t","fontsize",2,"color","black");
60 ylabel("Amplitude,x(t)","fontsize",2,"color","black");
61 //Impulse Wave
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62  n1=-10:10;
63  x3=[zeros(1,10) 1 zeros(1,10)];
64  subplot(338);
65  plot(n1,x3);
66  title('Impulse Wave','color','red','fontsize','3');
67  xlabel("Continuous Time,t","fontsize",2,"color","black");
68  ylabel("Amplitude,x(t)","fontsize",2,"color","black");
69  //Random wave
70  t=0:0.01:1;
71  x6 = rand(1,length(t)); //rand(row,column) gives a random matrix
72  subplot(339);
73  plot(t,x6);
74  title('Random Wave','color','red','fontsize',3);
75  xlabel("Continuous Time,t","fontsize",2,"color","black");
76  ylabel("Amplitude,x(t)","fontsize",2,"color","black");
77
78
79
80
```