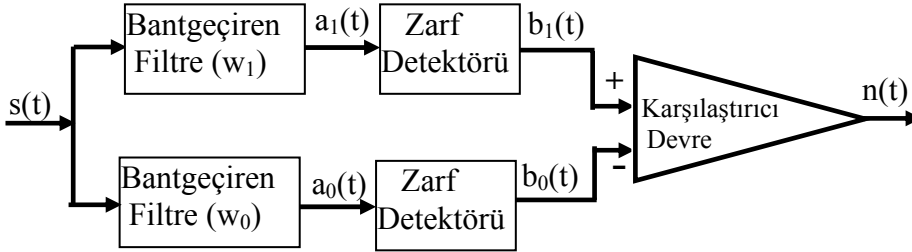
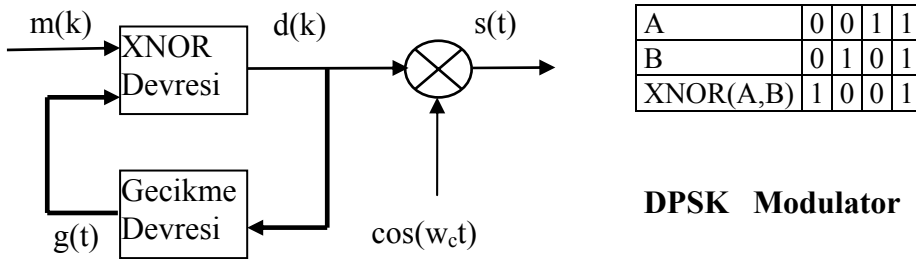


1) A KHz lik bir ses sinyali örneklenerek 8 bit Quantalama yapılmıştır. Quantalanmış işaret ASK modülasyonuna tabi tutulsa bant genişliği ne olur.

2)Eşvreli olmayan (noncoherent) FSK Demodulasyon Devresinin çalışma prensibini açıklayın.



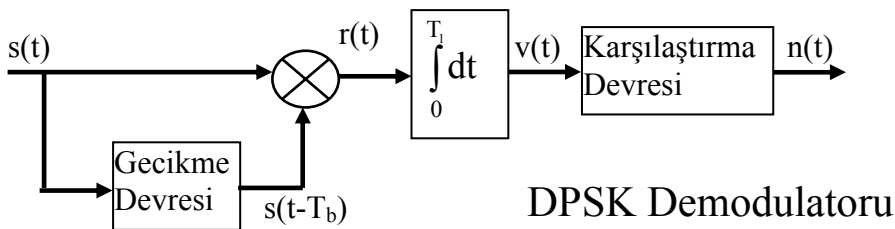
3) DPSK devresinin girişine Qx isareti geliyor. Tabloyu doldurun. Qx 2. soruda verilmiştir.



Adım	1	2	3	4	5	6	7	8	9	10	11
m(k)	Qx										
d(k)	1*										
dFaz	0										
d(k-1)											

**Verici ile karşıya gönderilen**

4)DSPK Demodulator girişine s(t)=Qz geliyor. Tabloyu doldurun.



Adim	1	2	3	4	5	6	7	8	9		
dFaz	Qz										
d(k-1)Faz											
dFaz*d(k-1)Faz											
n(t)											

No	Qz
19110011501	0 π π 0 0 0 π π 0 π 0
20110011011	0 0 π π 0 0 0 π π 0 π
20110011026	0 π 0 π 0 0 0 π π 0 π 0
20110011031	0 π 0 0 π 0 π π 0 0 π 0
20110011040	0 π 0 π 0 0 0 π π 0 0 π
21110011029	0 π π π 0 0 π 0 0 π π 0
22110011008	0 π π 0 0 0 π π 0 π 0
22110011011	0 0 π π 0 0 0 π π 0 π
22110011019	0 π 0 π 0 0 0 π π 0 π
22110011022	0 π 0 0 π 0 π π 0 0 π 0
22110011024	0 π 0 π 0 0 0 π π 0 0 π
22110011031	0 π 0 0 π 0 π π 0 0 π 0
22110011035	0 π 0 π 0 0 0 π π 0 0 π

No	Qz
22110011049	0 π 0 0 π 0 π π 0 0 π 0
22110011322	0 π 0 π 0 0 0 π π 0 0 π 0
22110011329	0 π π π 0 0 π 0 0 π π 0
22110011358	0 π π 0 0 0 π π π 0 π 0
22110011367	0 0 π π 0 0 0 π π π 0 π
22110011373	0 π 0 π 0 0 0 π π π 0 π 0
22110011399	0 π 0 0 π 0 π π 0 0 π 0
23110011022	0 π 0 π 0 0 0 π π 0 0 π 0
19110032505	0 π 0 0 π 0 π π 0 0 π 0

No	Qx
19110011501	0 0 1 0 0 1 0 0 1 1
20110011011	1 1 0 0 1 0 0 1 1 0
20110011026	0 1 1 0 0 1 0 0 1 0
20110011031	1 0 0 0 0 1 0 0 1 1
20110011040	1 1 1 0 1 0 0 1 1 1
21110011029	1 0 1 0 0 1 1 1 0 0
22110011008	0 0 1 0 0 1 0 0 1 1
22110011011	1 1 0 0 1 0 0 1 1 0
22110011019	0 1 1 0 0 1 0 0 1 0
22110011022	1 0 0 0 0 1 0 0 1 1
22110011024	1 1 1 0 1 0 0 1 1 1
22110011031	1 0 1 0 0 1 1 1 0 0
22110011035	0 0 1 0 0 1 0 0 1 1

No	Qx
22110011049	0 0 1 0 0 1 0 0 1 1
22110011322	1 1 0 0 1 0 0 1 1 0
22110011329	0 1 1 0 0 1 0 0 1 0
22110011358	1 0 0 0 0 1 0 0 1 1
22110011367	1 1 1 0 1 0 0 1 1 1
22110011373	1 0 1 0 0 1 1 1 0 0
22110011399	0 0 1 0 0 1 0 0 1 1
23110011022	1 1 0 0 1 0 0 1 1 0
19110032505	0 1 1 0 0 1 0 0 1 0