Department of Computer Systems Engineering
University of Engineering & Technology
Peshawar, PAKISTAN

Subject: Signal and Systems (4th Semester)

Exam: Mid Term (Spring 2020)

Max Marks: 20

Attempt All Questions. **Time allowed : 2 hours**

Question 2:

1) For the continues time signal x(t) and discrete-time signal x[n] given in Figure-2, find and sketch the following signals. (CLO1) **(4 Marks)**

S = Smaller among the digits at units and tens places of your registration number

B = Bigger among the digits at units and tens places of your registration number

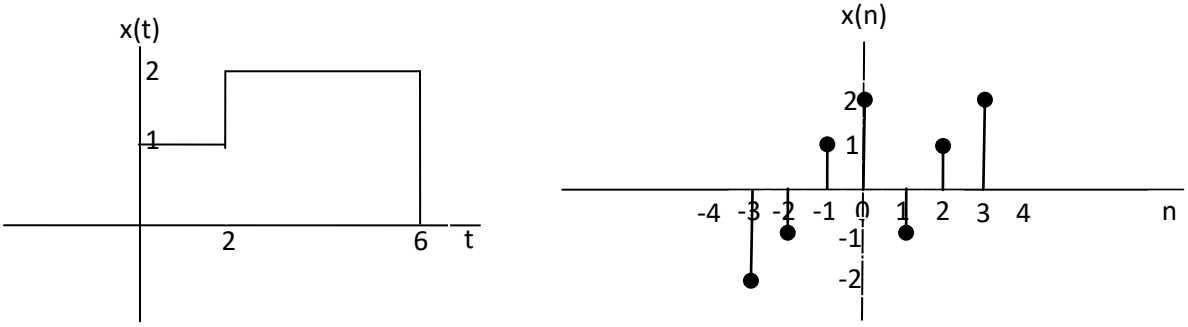

Figure-2

a) $\frac{1}{S}x(-St-B)$

b) $Bx[-2n+S]$

2) How does the (a) shifting, (b) scaling and (c) reversal operations affects a signal? What is the best order of applying these operations? What corrective steps need to be taken if we do reversal or scaling before shifting? (CLO1) **(3 Marks)**