11.02.20   TT – Maths

STD:XI (Maj)   Marks:25

1. Let A = { 1,2,3}, B= { 3,4} and C= {4,5,6}.

Find i) A X (B∪C)   ii) (AXB) ∪ (AXC)

2. Let A = {1,2,3,4,6}. Let R be the relation on A defined by {(a,b):a, b∈ A, 'b' is exactly divisible by 'a'}.

i) Write R in roster form   ii) Find the domain and range of R.

3. Define : i) Identify function ii) Modulus function

4. Let A = {1,2,3,4,5,6}. Define a relation R from A to A by R={(x,y):y=x+1}.

i) Show this relation using an arrow diagram

ii) Write domain, co domain and range of R.

5. A function 't' which maps defined by f(x)= 2x-5. Write down the values of i) f(0) ii) f(7) iii) f(-3) iv) f(-11)

11.02.20   TT –Computer Science

STD:XI (Con)   Marks:25

I. Answer in short: 4x2=8

1. Why are dictionaries called mutable types?
2. What do you understand by ordered collation and unordered collection?
3. Can you remove key: value pairs from a dictionary and if so, how?
4. How do you add key: value pairs to an existing dictionary?

II. Answer in Brief: 4x3=12

1. How are individual elements of dictionaries accessed?
2. What are different ways of creating dictionary?
3. How are dictionaries different from lis?
4. Why can't list can be used as keys?

III. Answer in Detail: 1x5=5

1. Consider the following code fragments what outputs will they produce?

a) aDict = { 'Dharani' : 1, "Richard" : 2, "Firoza" : 10, "Arshnoor" : 20}
temp = 0
for value in aDict. Vaulues ( ):
temp = temp + value
print (temp)

b) aDict = { 'Bhana' : 1, "Richard" : 2, "Firoza" : 10, "Arshnoor" : 20}
temp = " "
for key in aDict :
if temp < key:
temp = key
print (temp)