Assign 2 Part & 2019114009 (colg sous) from state (11) (211) (12) (2,2)action right, 0-8 6 4 up 0-8 0.2 0 right 0-75 0:25 0 (112) down 0.8 left 0,8 002 0 up 0 0-2 0-8 (21) ACR - Probab -> 0-8 x0-25 = 0-2 Lost -> -4 ABR -> POD 606 -> 0.8×0.8 =0.64 LLOST 3-5 here we can see probability wise the optimal solution is ABR while cost wise the optimal solution

is ACR. Also this probabilities ox given both sepective paths.

If we choose ACR instead of ABR

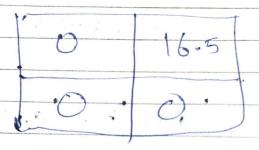
there is 20% - drop in cost. But probability goes

down from 64% to 20%
So, I think ABR is the best path.

Vo(A) =0 Vo(B) =0 V(C) =0

U(R) = 16-5

Roll por = 2019114009



U(A) = max [R(A)a) + Y & Vo(i) P(i) A,a)

a = & up, right y

R(A,a) = R(A,a,i) + EP(3/A,a) (= B,B,C,R

R(A, up) = 0.8 x -1 +0-2 x -1

R (AIBSN+) = 0.2x-1+0.8x-1 = -1

U,(A) = moca[0(1+0), 0++)
(-1+0)



U(B) = moc [R(B,a) + Y & Vo(3) P(3 | B,a)] a= LIGH, upy R(B, left) = 0-8x-1+0-2x-1=-R (BIUP) = 07.8x-4+0-2x-1= U₁(B) = mexa[(-3.4+ 16.5 × 0.8), (-1+ 16.5 × 0.2), (-1+ (-00.76,-1° U(B) = -0, 76 U(c) = maca[-1016, -1.14]. U(() = mara[R(C,a)+ x & vo(i)R(j|C,a) a = f. Right, down 3 R(R) 83ht)= 0.025 X-3+0-75 X-1 Q(C, down) = 0.8 x-1+0.2 x-2

= -1

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$$V_{(c)} = max[(-1.6), (-1.19)]$$
 $max[(-1.0), (-0.67)]$

= -0.67

-0.067 16.5 -1 -0.76

phroz DEA)

a= { vr night i.

Page No.

Date:

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	Date:
1 kg	Uy(A), mec -1-1734342 -1.17346.
	2-10173434
A	$U_{4}(B) = moc(-1-2)(1-0.79)$
(<u>)</u>	2-0.79
	Uy (U) = more [-1-211 -0-79]
	=-0.79
-0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	now Billman Essor is jessth 0.01
-/	in all States. De des convergence.
And	To you are at A i near highest cutility is B, A >B-5R would be best acc- to VI
-	Yes, Our privious guess wes consert - :)

ASS B. As we calculated the values of Ut (B), Ut(A) and Ut (C) in ques-3-

A to asedependent on the R-value (Reward)

So what i observe is that when the value of R is more then A>B>R is more likely whereas when A>C>R is more likely in lesser values of R.

Also if you calculate for some more values of R then you will see for smaller values the best path would be A>C>R and whereas in larger values the path will be A>B>R.

So, obviously there so shoots will be some value of R for which the cost of the peths $A \rightarrow C \rightarrow R$ and $A \rightarrow B \rightarrow R$ will be some.