K.G.C.E Karjat - Raiga				Page No.:
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Su	ibject ?- I	SLab		
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		॥ ज्ञानदीपेन भास्व	CAN	3
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K.G.C.E. Karjat - Raigad Page No. :

Date:

KGCEKGCEKGCEKGC	EKGCEKGCEKGCEKGCEKGCEKGCEKGCEKGCEKGCEKGC
0.2	consider following of 8 puzzle problem:
7	a male was the dead of the and
* 1	8 7 6
į.	2 1 5 2 1 6
12.5	3 4 - 5 - 5 -
i	in the state of the state of the said
	Initial confi. Goal config.
	CVA
	consider Aueristic functions define bolow
-	his Misplaced tiles count except space
_	hzà correctly placed tiles count
	except space
	h30 sum of Manhattan distance betwee
\$ · 10	current and correct position of
	all times except space.
_	Answer following questions ?-
	Jan 1
a	In 8 puzzle problem we are concerne
	with getting to goal configuration
, 3	with gotting to goal configuration within least number of Steps. All
	moves are thus equally costly.
	Define a(n) in you own words - what
	will be the cost of 6 Step solution
*	to some arbitary & puzzle
	within least number of Steps. His moves are thus equally costly. Define g(n) in you own words - what will be the cost of 6 Step solution to some arbitary & puzzle instance?

K.G.C.E. Karjat - Raigad

Page No.:

Date:

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	-The lowest path of a(n) can be
4	the cost to reach the goal configuration in least steps.
	contiquation in least steps.
31	- In case we can reach the final
*	- In case we can reach the final configuration in atleast four move: UP, EUP, LEFT, LEFT
	MOVE : MP# MP LEFT LEFT
•	The state of the s
7	- since all the moves are equally
	- sivice all the moves are equally
	roction lue compute achi à ac
31 /4 5	9 (m) =। जानतीयनाभा। क्र
	g(n) = 4-
	(9 (9 - (9 (9 (9 (9 (9 (9 (9 (9 (9 (9 (9 (9 (9
	M X X X X X X X M MUNICIPAL IN
	- consider the following arbitrary
in the second	- consider the following arbitrary 8 puzzle instance which since
	solution in steps.
•	
4	
	8 7 6
-	2 1 5
	- 13 4 × 12 × 12 × 12 × 12 × 12 × 12 × 12 ×
1000	
1-1	- The solution can be represent as:
	828, 4, 62, 22, 1, 53 2-13, 43>
	259, 4,63, 52, 1,53, £3, -, 433->
	958,4.63 32,1,53, 93,4,-33
	558, 7, 13 52, 1, -3, 53, 4, 533
	\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	2 2 8, -, +3, 22, 1, 63, 23, 4, 554 7
	29-18,73,82,1,69,83,4,533

Karjat - F	Raigad Page No. : Date :
GCEKGCEKGC	EKGCEKGCEKGCEKGCEKGCEKGCEKGCEKGCEKGCEKGC
	Since all the moves are equally cost the cost would be g(n) = 6
1	the cost to see the cost
	the cost would be
	q(N) = 6
	A A A A A A A A A A A A A A A A A A A
	/ इंग्लियन भारतवाः ॥ १४% ।
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	The transfer of the second of
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	- Raigad Page No.: Date :
	E KGCE KGCE KGCE KGCE KGCE KGCE KGCE KGC
Q.2 - C	Draw exhastise state space tree of depty limited to 4 for instance of 8 puzzle problem in the question
	depty limited to 4 for instance of
	e puzzle problem in the question
1	
A. 21 7.	
	MUTAL
	॥ ज्ञानदीपेन भास्वताः॥
1 1 3	
	999999
	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	900 - 100
	The Day of Day o
*	
Sa.	

2 1 5 Initial Configuration
3 4 -
LEFT
8 7 2 1 3 - 4 3 4 5
LEFT UP RIGHT UP LEFT DOWN
Dowlo
976 876 87- 976 876
215 2-5 215 216 2 - 1 2 15
-3431434- 345 345
LEFT LE DOWN
3 4 5
LEFT DOWN RIGHT
- 8 4 8 1 + 8 7 -
31. 5
3 4 5 3 4 5
Final
configuration
- 111-1-1-1

K.G.C.E. Karjat - Raigad Page No. :

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CEKGCEKGCEK	GCEKGCE	KGCEKGCEKGCEKGCEKGCEKGCEKGCEKGCEKGCEKGCE	KGCEKGCEKGCEKGCI
x	(e)	Compute hi(n) Where 1=1.2.	3 and
		Compute hi(n) Where i=1,2, n = initial state, goal state	from
		question.	
		V	
	=>	For i=1, n= initial state h_ (initial) = Misplaced files	
		he (initial) = Misplaced files	count
		except space	
		he (initial) = 4	
		A Comment of the second	
		n = goal state	
		he = (qoal= = 10 man 1)	
			N. N
	1 4	For = = 200 no= initial state	
1		hz (initial) = correctly placed	files
		count except spa	
		h2 Cinitial) =4	
		for n = goal state	
		hz(qoal) -8	
		For i = 3, N= initial state	<u>L</u>
		hs cinitial = sum of Manhatia	an distance
		between current a	nd count
		position of all time	except s
		h3 ("nitial) = 0+0+0+1+1+1+1	7
		4	
		For n = Goal State	[7]
		h3 (goal) = 0	
			A p
			d .