(i) Missionaries and Cannibals			
	DFS	BFS	
Length of Path	9 edges	7 edges	
Number of Nodes Expanded	10 states expanded	10 states expanded	
Path from Start to Goal	M on left:3	M on left:3	
	C on left:3	C on left:3	
	M on right:0	M on right:0	
	C on right:0	C on right:0	
	boat is on the left.	boat is on the left.	
	M on left:2	M on left:2	
	C on left:2	C on left:2	
	M on right:1	M on right:1	
	C on right:1	C on right:1	
	boat is on the right.	boat is on the right.	
	M on left:3	M on left:3	
	C on left:2	C on left:2	
	M on right:0	M on right:0	
	C on right:1	C on right:1	
	boat is on the left.	boat is on the left.	
	boat is on the left.	boat is on the left.	
	M on left:0	M on left:1	
	C on left:2	C on left:1	
	M on right:3	M on right:2	
	C on right:1	C on right:2	
	boat is on the right.	boat is on the right.	
	_		
	M on left:2	M on left:3	
	C on left:2	C on left:1	
	M on right:1	M on right:0	
	C on right:1	C on right:2	
	boat is on the left.	boat is on the left.	
	M on loft:1	M on loft:0	
	M on left:1	M on left:0	
	C on left:1	C on left:1	
	M on right:2	M on right:3	
	C on right:2	C on right:2	
	boat is on the right.	boat is on the right.	
	M on left:3	M on left:1	
	C on left:1	C on left:1	
	5 511 161612	0 011 101012	

M on right:0 M on right:2 C on right:2 C on right:2 boat is on the left. boat is on the left. M on left:0 M on left:0 C on left:1 C on left:0 M on right:3 M on right:3 C on right:2 C on right:3 boat is on the right. boat is on the right. M on left:1 C on left:1 M on right:2 C on right:2 boat is on the left. M on left:0 C on left:0 M on right:3 C on right:3 boat is on the right.

(ii) Farmer, Fox, Chicken, Grain		
	DFS	BFS
Length of Path	7 edges	7 edges
Number of Nodes Expanded	7 states expanded	10 states expanded
Path from Start to Goal	[Farmer Fox Chicken Grain]	[Farmer Fox Chicken Grain]
	[Fox Grain Chicken Farmer]	[Fox Grain Chicken Farmer]
	[Farmer Fox Grain Chicken]	[Farmer Fox Grain Chicken]
	[Grain Chicken Farmer Fox]	[Fox Chicken Farmer Grain]
	[Chicken Farmer Grain Fox]	[Chicken Farmer Fox Grain]
	[Chicken Farmer Fox Grain]	[Chicken Farmer Fox Grain]
	[Chicken Farmer Fox Grain]	[Chicken Farmer Fox Grain]
	[Chicken Farmer Fox Grain]	[Chicken Farmer Fox Grain]

(iii) Towers of Hanoi		
	DFS	BFS
Length of Path	40 edges	18 edges
Number of Nodes Expanded	40 states expanded	70 states expanded
Path from Start to Goal	[[4, 3, 2, 1],[],[]]	[[4, 3, 2, 1],[],[]]
	[[4, 3, 2] ,[1] ,[]]	[[4, 3, 2] ,[1] ,[]]
	[[4, 3] ,[1] ,[2]]	[[4, 3] ,[1], [2]]
	[[4, 3, 1] ,[] ,[2]]	[[4, 3, 1] ,[] ,[2]]
	[[4, 3] ,[] ,[2, 1]]	[[4, 3],[],[2, 1]]
	[[4] ,[3] ,[2, 1]]	[[4],[3],[2, 1]]
	[[4, 1],[3],[2]]	[[4, 1],[3],[2]]
	[[4],[3, 1],[2]]	[[4, 1] ,[3, 2] ,[]]
	[[4, 2] ,[3, 1] ,[]]	[[4] ,[3, 2, 1] ,[]]
	[[4, 2, 1] ,[3] ,[]]	[[] ,[3, 2, 1] ,[4]]
	[[4, 2] ,[3] [1]]	[[1],[3, 2],[4]]
	[[4],[3, 2],[1]]	[[],[3, 2],[4, 1]]
	[[4, 1],[3, 2],[]]	[[2],[3],[4, 1]]
	[[4],[3, 2, 1],[]]	[[2, 1],[3],[4]]
	[[],[3, 2, 1],[4]]	[[2, 1],[],[4, 3]]
	[[1],[3, 2],[4]]	[[2],[1],[4,3]]
	[[],[3, 2],[4, 1]]	[[],[1],[4, 3, 2]]
	[[2],[3],[4,1]]	[[1],[],[4, 3, 2]]
	[[2, 1],[3],[4]]	[[] ,[] ,[4, 3, 2, 1]]
	[[2],[3,1],[4]]	
	[[],[3, 1],[4, 2]]	
	[[1],[3],[4, 2]]	
	[[],[3],[4, 2, 1]] [[3],[],[4, 2, 1]]	
	[[3, 1],[],[4, 2]]	
	[[3],[1],[4,2]]	
	[[3, 2],[1],[4]]	
	[[3, 2, 1],[],[4]]	
	[[3, 2],[],[4, 1]]	
	[[3],[2],[4,1]]	
	[[3, 1],[2],[4]]	
	[[3],[2,1],[4]]	
	[[],[2, 1],[4, 3]]	
	[[1],[2],[4, 3]]	
	[[],[2],[4, 3, 1]]	
	[[2],[],[4, 3, 1]]	
	[[2, 1],[],[4, 3]]	
	[[2],[1],[4,3]]	
	[[],[1],[4, 3, 2]]	
	[[1],[],[4, 3, 2]]	
	[[] ,[] ,[4, 3, 2, 1]]	