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MARL

Assignment – 1

Ans. 1 :- States → hostel, academic building, canteen

Actions → eat food, attend class.

s	a	s'	$P(s'|s,a)$	$r(s,a,s')$
hostel	attend class	academic building	0.5	+3
hostel	attend class	hostel	0.5	−1
hostel	~~canteen~~ eat food	canteen	1	+1
academic building	attend class	academic building	0.7	+3
academic building	attend class	canteen	0.3	+1
academic building	eat food	canteen	0.8	+1
academic building	eat food	academic building	0.2	+3
canteen	attend class	academic building	0.6	+3
canteen	attend class	hostel	0.3	−1
canteen	eat food	canteen	1	+1
canteen	attend class	canteen	0.1	+1

A state diagram with nodes: hostel, academic building, canteen.

- attend class: 0.6, +3
- attend class: 0.7, +3
- 0.3, +1
- attend class
- attend class: 0.5, +3
- eat food
- attend class: 0.5, −1
- 0.2, +3
- 0.8, +1
- attend class: 0.1, +1
- eat food: 1, +1
- eat food: 1, +1
- 0.3, −1