3. Two bus companies, Roadway and Rankin Wheels, operate a route from Greensboro to Spring City, transporting a mix of passengers and freight. They must file their schedules with the local transportation board each year and cannot alter them during that year. Those schedules are revealed only after both companies have filed. Each company must choose between an early and a late departure. The relevant payoff matrix appears below, with the first entry in each cell indicating Roadway's daily profit and the second entry in each cell indicating Rankin Wheels' daily profit.

		Rankin Wheels	
		Early	Late
Roadway	Early	$1,000, $900	$950, $850
	Late	$750, $650	$700, $800

(a) In which market structure do these firms operate? Explain.

(b) If Roadway chooses an early departure, which departure time is better for Rankin Wheels?

(c) Identify the dominant strategy for Roadway.

(d) Is choosing an early departure a dominant strategy for Rankin Wheels? Explain.

(e) If both firms know all of the information in the payoff matrix but do not cooperate, what will be Rankin Wheels' daily profit?

STOP

END OF EXAM

Question 3

6 points (1 + 1 + 1 + 2 + 1)

(a) 1 point:
- One point is earned for identifying the market as an oligopoly, since there are only two firms and their actions are mutually interdependent.

(b) 1 point:
- One point is earned for stating that Rankin Wheels will choose early departure.

(c) 1 point:
- One point is earned for stating that Roadway's dominant strategy is early departure.

(d) 2 points:
- One point is earned for stating that early departure is not a dominant strategy for Rankin Wheels.
- One point is earned for reasoning that if Roadway chooses a late departure, Rankin Wheels is better off choosing a late departure.

(e) 1 point:
- One point is earned for identifying $900 as Rankin Wheels' daily profit.