The College Board: Connecting Students to College Success

The College Board is a not-for-profit membership association whose mission is to connect students to college success and opportunity. Founded in 1900, the association is composed of more than 4,700 schools, colleges, universities, and other educational organizations. Each year, the College Board serves over three and a half million students and their parents, 23,000 high schools, and 3,500 colleges through major programs and services in college admissions, guidance, assessment, financial aid, enrollment, and teaching and learning. Among its best-known programs are the SAT®, the PSAT/NMSQT®, and the Advanced Placement Program® (AP®). The College Board is committed to the principles of excellence and equity, and that commitment is embodied in all of its programs, services, activities, and concerns.
Overview

The question tested the students’ understanding of the relationship between the firm and the market in a perfectly competitive industry. Part (a) asked the students to draw side-by-side graphs for the market and a typical firm in long-run equilibrium. Part (b) required students to determine the effect of a change in market demand on the industry and the firm in the short run. In part (c) students were asked to state the condition necessary for firms to produce in the short run. Finally, students were asked to compare industry price, firm output, and the number of firms in the industry from the initial long-run equilibrium to the new long-run equilibrium produced by the change in market demand from part (b).

Sample: 1A
Score: 12

The student received full credit.

Sample: 1B
Score: 9

The point in part (c) was lost because the student does not correctly state that P must be greater or equal to AVC to produce in the short run. Two points were lost in part (d) for not correctly identifying the price and output at the new long-run equilibrium.

Sample: 1C
Score: 5

The student lost 2 points in part (a) for not showing that the firm’s price comes directly from the market and that long-run equilibrium is where P=MC=MR=minimum ATC. Points were lost in parts (b) and (c) for not shading the correct loss for the firm and not correctly stating that P must be greater or equal to AVC to produce in the short run. All points were lost in part (d).
Question 2

Overview

The question tested the students’ ability to determine the effects of a tax on price, consumer surplus, producer surplus, tax revenues, and deadweight loss. Part (a) asked students to identify price, quantity, consumer surplus, and producer surplus before a tax. Students were asked in part (b) to explain why the burden of the tax was shared between producers and consumers. In part (c) students were required to identify the post-tax consumer surplus, deadweight loss, tax revenues, and net price received by sellers.

Sample: 2A
Score: 9

The student received full credit.

Sample: 2B
Score: 7

The student lost 2 points in part (c) for not correctly identifying the amount of tax revenue and the area of deadweight loss.

Sample: 2C
Score: 4

The student lost both points in part (b). The student lost 3 points in part (c) for not correctly identifying the net price received by sellers, the amount of tax revenue, and the area of deadweight loss.
Question 3

Overview

The question tested students’ understanding of market structure in the product and labor markets and the firm’s profit-maximizing use of labor.

Sample: 3A
Score: 8

The student received full credit.

Sample: 3B
Score: 5

The student lost 2 points in part (b) for not correctly stating and explaining that the firm hires labor in a perfectly competitive market. One point was lost in part (d) for stating an incorrect analysis of the number of workers to be hired.

Sample: 3C
Score: 3

The student earned 1 point in part (a) for stating that the product market structure is perfectly competitive and 2 points in part (c) for correctly identifying the marginal revenue product of the third worker, using a correct explanation.