Question 3

5 points (1 + 1 + 3)

(a) 1 point:
- One point is earned for identifying the profit-maximizing quantity of labor as 100 units.

(b) 1 point:
- One point is earned for identifying the wage rate TreeMart pays as $10.

(c) 3 points:
- One point is earned for identifying the quantity of labor in a competitive labor market as 200 units.
- One point is earned for identifying the quantity of labor, 150 units, given a minimum wage of $12.5.
- One point is earned for explaining that the MFC curve (or the supply curve for labor) becomes horizontal at the minimum wage up to a quantity of 150.
3. Profit-maximizing quantity of labor is 100 where \( MFC = MRP \).

(b) The wage rate is $10 where quantity supplied is 100.

(c) (i). The quantity operates in a competitive market is 200, for Free Mart, where \( S = MRP \).

(ii) The quantity will be 150 if the government imposes a minimum wage of $12.5.

![Graph](image)

- The imposed $12.5 price will cause the supply become perfectly elastic before \( Q = 150 \) and cause the MFC become \( MFC_2 \). The huge increases at \( Q = 150 \) is because after the point the supply increases and the firm \( Q \) has to increase all labor's wage, where the new marginal factor cost (MFC) meet the MRP determine the quantity, which is exactly the \( Q = 150 \).
Write in the box the number of the question you are answering on this page as it is designated in the exam.

3

(a) 100

(b) $10

(c) \$: 200

ii: 25. In a monopsony, the monopsonist hires less and pays less due to the monopsonist's dominant position.
Write in the box the number of the question you are answering on this page as it is designated in the exam.

3.

(a) 200 units of labor
(b) $15
(c) i. 100 units of labor
   ii. 150 units of labor because it's where the minimum wage hits the supply of labor. The firm will hire only 150 labor at wage of $12.5.
Question 3

Sample: 3A
Score: 5

The student answers all parts of the question correctly and so earned all 5 points.

Sample: 3B
Score: 3

The student lost both points in part (c)(ii) for incorrect answers.

Sample: 3C
Score: 1

The student received 1 point in part (c) for correctly identifying the quantity of labor hired under the minimum wage.