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a) MRP is the addition to total revenue that is made with one additional increase in a unit of labor. It represents a firm's demand for labor.

b)

<table>
<thead>
<tr>
<th>Labor Market</th>
<th>Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>wage</td>
<td>S</td>
</tr>
<tr>
<td>w1</td>
<td></td>
</tr>
<tr>
<td>O</td>
<td></td>
</tr>
<tr>
<td># of workers</td>
<td></td>
</tr>
</tbody>
</table>

i) Equilibrium wage is w1.

ii) The labor supply curve of the firm is the horizontal line, w1, as the firm is a wage taker.

iii) Qw is the number of workers the firm will hire.
Write in the box the number of the question you are answering on this page as it is designated in the examination.

C)

i) Wage rate will remain the same because the firm is a price wage taker.

ii) The number of workers increases due to increased MRPL. Firm hires more workers until mRP = wage.

\[ \text{Labor market} \]

\[ \begin{array}{c}
\text{Wage} \\
\text{\_\_\_\_\_} \\
\text{W}
\end{array} \]

\[ \begin{array}{c}
\text{Firm} \\
\text{\_\_\_\_\_} \\
\text{wage} \\
\text{\_\_\_\_\_}
\end{array} \]

\[ \text{Q_m} \quad \text{H of workers} \]

\[ \text{D_1} \quad \text{D_2 = mRP} \]

\[ \text{H of workers} \]
3a) MRPₜ is the amount of additional revenue the next laborer provides for the company through the scale of the units produced by said laborer.

3b) The equilibrium wage in the labor market is labeled $w^*$ and is on the Y-axis of the labor market graph.

3bii) The labor supply curve that the firm faces is labeled $S$ and is on the firm graph.

3biii) The number of workers the firm will hire is labeled $Q^*$ and is on the X-axis of the firm graph.

3c) With companies new technology, they will want to maximize their profits before other firms receive the technology. So -

i) Wage rates will increase

ii) Number of workers hired will also increase

this is because company XYZ will have an increased demand for laborers, the demand curve will shift
out to the right. This will increase the quantity of laborers, and will increase the wage at which they work.