It can be concluded that in the long run, firms in perfect competition make normal profits, without considering the initial situations in the short run—> the industry will adjust with firms entering or leaving the industry until a normal profit situation is reacher:

- firms sell at new price P where MC=MR and so they are maximising profits by producing q. At that output P is equal to AC and they are therefore making normal profits. With this situation, there is no incentive for firms lo enter or leave the industry and so equilibrium will persist until there is a new change in demand curve or costs the firm has to face leading to new short run situations.

Long run equilibrium in perfect competition graph

Productive and allocative efficiency in perfect competition

A firm is said to be productively efficient if it produces it's product at the lowest possible average costs and this occurs at a point where MC=AC as MC cuts the average costs curve at it's minimum point. If a firm is able to produce at this level, then it is allocating and combining it's resources as efficiently as possible and they are not wasted

Allocative efficiency occurs when suppliers are producing the optimal mix of goods and services required by consumers and it occurs where marginal costs (the cost of producing one more unit) is equal to the average revenue (the price received for unit) MC=AR—> beneficial to consumers

Short run

If a firm is making short run abnormal profits, as seen in the graph, it is a producing at an output level where they are profit maximising (MC=MR), but also at a point where the price of the good is equal to the costs for the production of that good(MC=AR). At the same time, the firm is not producing at the most efficient level of output because MC is not equal to AC.

If a firm is making short run losses, they are also producing at a level where they are profit maximising or, loss minimising and at the allocatively efficient level of output, but not producing at the most efficient level of output.

Short run graphs for losses and abnormal profits showing allocative and productive efficiency

Long run

Profit maximising firms in perfect competition in the long run all reduce at the lowest point of their average cost curves. Due to the fact there is perfect knowledge, all firms will face the same costs curves, indicating they are selling at the same price and minimising average costs where MC=AC as it cuts at it's minimum point. At the same time, firms also produce at an allocatively efficient level of output where MC=MR

Long run allocative and productive efficiency graph