R & U - Reason-Based Questions

Q.1. When AP = MP, AP is at its minimum.

Ans. False. When AP = MP, AP is at its maximum In this case, MP curve cuts AP curve from its top.

Q.2. MP starts diminishing from the point of inflexion.

Ans. True. Point of inflexion is a point from where slope of TP changes. As we know, slope of TP = MP. From this point onwards, TP increases at the diminishing rate. Therefore, MP stops increasing at this point. Or, we can say that this is a point from where MP starts diminishing.

Q.3. In the short run production function, factor ratio changes at different levels of output.

Ans. True. In the short run production function, factor ratio changes at different levels of output because only one factor is variable through out the production process.

Q.4. When marginal product decreases, total product always decreases.

Ans. False. This is because falling marginal product implies that total product should be increasing, though at a diminishing rate. It simply implies diminishing slope of TP (total product) curve, not diminishing TP. Total product decreases only when marginal product becomes negative.

Q.5. When there are diminishing returns to a factor, total product increases at decreasing rate.

Ans. True. This is because in a situation of diminishing returns to a factor, marginal product tends to fall. Falling marginal product implies that total product should be increasing, though at a diminishing rate. It simply implies diminishing slope of TP (total product) curve.

Q.6. In the second stage of production, when MP is diminishing TP increases at increasing rate.

Ans. False. Because, second stage of production is the stage of diminishing returns. Diminishing returns occur when MP is diminishing. Diminishing MP implies a situation when TP is increasing at a diminishing rate. Hence, in the second stage of production, when MP is diminishing TP increases at decreasing rate.

Q.7. When 10% increase in all factor inputs causes 12% increase in output, it is situation of increasing returns to scale.

Ans. True. Because, increasing returns to scale occurs when a given percentage increase in all factor inputs causes proportionately greater increase in output. Here, 10% increase in all factor inputs causes 12% increase in output, therefore, it is a situation of increasing returns to scale.