Q.1. The concept of fixed cost is relevant for short period as well as for long period.

Ans. False. The concept of fixed cost is relevant only for short period. All costs are variable in the long period. The difference between fixed costs and variable costs disappears in the long period.

Q.2. Variable cost curve starts from the point of origin (zero).

Ans. True. Because TVC = 0 when output = 0.

Q.3. Total cost curve starts from the origin in the short period.

Ans. False. Total cost curve does not start from the origin in the short period. At zero level of output, total cost is equal to fixed cost. Therefore, total cost curve starts from the Y-axis.

Q.4. Total cost and total variable cost curves are parallel to each other.

Ans. True. Total cost and total variable cost curves are parallel to each other. This is because fixed cost (which is the difference between total cost and total variable cost) is constant at all levels of output.

Q.5. Average total cost is greater than average variable cost.

Ans. True. Average total cost is greater than average variable cost because average total cost (ATC) is the sum of average variable cost (AVC) and average fixed cost (AFC).

Q.6. TVC increases at a decreasing rate in the initial stages of production.

Ans. True. Because, initially a firm may be enjoying increasing returns to a factor (because of underutilisation of the fixed factor). It corresponds to a situation when MP is rising and MC is falling.

Q.7. Short period average cost curve is U-shaped because of returns to scale.

Ans. False. Short period average cost curve is U-shaped because of the law of variable proportions (or returns to a factor): it tends to fall owing to increasing returns to a factor; it tends to stabilise owing to constant returns to a factor; and it tends to rise owing to diminishing returns to a factor.

Q.8. ATC and AVC curves intersect each other at some point.

Ans. False. ATC and AVC curves never intersect each other, because ATC is the sum of AFC and AVC. Since AFC can never be zero, the AVC can never be equal or greater than ATC. Thus, ATC always remains above AVC.

Q.9. Marginal cost is an inverse U-shaped curve.

Ans. False. Marginal cost is U-shaped curve because of the law of variable proportions. Initially, it is falling because of increasing returns to a factor. Subsequently, it tends to rise because of diminishing returns to a factor.

Q.10. Fixed cost does not influence MC.

Ans. True. MC is additional cost. By definition, additional cost cannot include any component of fixed cost (which is constant and incurred even before production **actually starts). Hence, MC is not influenced by fixed cost.**

Q.11. Long run average cost curve is U-shaped.

Ans. True. Long run average cost curve (LRACC) is U-shaped because of the returns to scale. When increasing returns to scale are in operation, LRACC tends to decline. When constant returns to scale are in operation, LRACC tends to stabilise. When decreasing returns to scale are in operation, LRACC tends to rise.

Q.12. Long run average cost curve is flatter than the short run average cost curve, even when both the curves are U-shaped.

Ans. True. Long run average cost curve is flatter than the short run average cost curve, because short run average cost curve relates to one plant, or the constant scale of output. Long run average cost curve, on the other hand, relates to several plants or the expanding scale of output.