

Q17. What do the short run marginal cost, average variable cost and short run average cost curves look like?

Ans: The short run marginal cost (SMC), average variable cost (AVC) and short run average cost (SAC) curves are all U-shaped curves. The reason behind the curves being U-shaped is the law of variable proportion. In the initial stages of production in the short run, due to increasing returns to labour, all the costs (average and marginal) fall. In addition to this in the short run MP of labour also increases, which implies that more output can be produced by per additional unit of labour, leading all the costs curves to fall. Subsequently with the advent of constant returns to labour, the cost curves become constant and reach their minimum point (representing the optimum combination of capital and labour). Beyond this optimum combination, additional units of labour increase the cost, and as MP of labour starts falling, the cost curve starts rising due to decreasing returns to labour.

Q18. Why does the SMC curve cut the AVC curve at the minimum point of the AVC curve?

Ans: SMC curve always intersect the AVC curve at its minimum point. This is because to the left of the minimum point of AVC, SMC is below AVC. SMC and AVC both fall but the former falls at a faster rate. At the minimum point K, AVC is equal to SMC. Beyond K, AVC and SMC both rise but the latter rises at a faster rate than the former and also SMC lies above AVC. Therefore, the only point where SMC and AVC are equal is where SMC intersects AVC, i.e., at the minimum point of the AVC curve.

Q19. At which point does the SMC curve cut the SAC curve? Give reason in support of your answer.

Ans: SMC curve intersects SAC curve at its minimum point. This is because as long as SAC is falling, SMC remains below SAC and when SAC starts rising, SMC remains above SAC. SMC intersects SAC at its minimum point P, where SMC = SAC.

