Average fixed cost (AFC) is total fixed cost (TFC) divided the quantity of output. Because TFC does not change regardless of the quantity of output, AFC decreases as output increases. However, AFC reaches a minimum where production is maximized (A).
Average variable cost (AVC) is total variable cost (TVC) divided by output. AVC reflects diminishing marginal productivity by initially declining, reaching a minimum and then increasing. AVC is minimized at output level B; the same level of output where APP is maximized.
Average total cost (ATC) is the summation of AFC and AVC. ATC minimizes at a level of output somewhere between B and A; that is, somewhere in the range of output that corresponds to Stage II.