

Solutions

2.1 Tax per item=consumer price–producer receipt= $12-9=3$ currency units/item. Consumer burden= $12-10=2$ units/item; producer burden= $10-9=1$ unit/item. The stated burden split concerns this equilibrium, not a universal tax rule. Tax revenue=tax per item $\times$ post-tax quantity; that quantity must be known. Revenue is a transfer, while welfare effects require changes in surplus, resource use and any external harm. A corrective tax can reduce inefficient overproduction, but only with the relevant external-cost model and evidence. Collection cost, evasion and access matter. Authored points for method, application and relevant qualification.

3.1 Greater output can increase external harm even if consumers and producers gain privately. Identify marginal social/private costs and the efficient versus market quantity before judging. A targeted charge or standard may address the harm more directly, subject to measurement, enforcement and distribution. A subsidy for a cleaner alternative might help through a different mechanism; its fiscal and behavioural effects still need evaluation. IGCSE pupils use the supported private/external/social distinction; detailed marginal welfare geometry belongs only where the course's mapped outcomes authorize it. Authored points for judgement, case-linked reasoning and justified qualification. Accept supported alternatives.