

Sustainable urban development 3.2.3.8 ANSWERS

| Q1 | <i>Match the terms with their correct definition</i> | | |
|----|---|-----------------------|--|
| A | Acting in a way such that current operations don't compromise or leave issues for future generation | Sustainability | |
| B | The consequences of an action, the costs of which are borne by the area of impact rather than at the source of the process | Externality | |
| C | Taking all components into account when considering an issue, seeing links and associations and viewing the whole. | Holistic | |
| D | The average productivity of all biologically productive areas on earth (land and sea) in a given year measured in the stated area | Global hectare | |
| E | The quality of experience that can be anticipated in a particular place on the basis of health, education and other key measures | Liveability | |
| | | Liveability | Sustainability Externality Holistic Global hectare |

| Q2 | Tick if these are Inputs cities require or Outputs they generate | Input | Output |
|----|--|-------|--------|
| A | Agricultural produce | ✓ | |
| B | Construction materials | ✓ | |
| C | Acid rain constituents | | ✓ |
| D | Clean water | ✓ | |
| E | Unrecyclable solid waste | | ✓ |
| F | Energy and power | ✓ | |
| G | Contaminated effluent | | ✓ |

| Q3 | Which category of sustainable urban action does each of these most relate to? | <i>Physical</i> | <i>Environmental</i> | <i>Economic</i> | <i>Social</i> |
|----|---|-----------------|----------------------|-----------------|---------------|
| A | Investing in mass-transit transport systems | | ✓ | | |
| B | Limiting urban sprawl through green belt policy | ✓ | | | |
| C | Setting up funds to invest in rural improvement | | | ✓ | |
| D | Recycling and re-using urban waste water | | ✓ | | |
| E | Banning the use of PVC in new buildings | | ✓ | | |
| F | Reducing urban inequality by subsidising housing | | | | ✓ |

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| Q4 | <i>Suggest how urban areas can become more sustainable in their contributions to the following dimensions:</i> | |
| <i>Transport sustainability</i> <ul style="list-style-type: none"> • Investing in public transport systems • Designating bus lanes on existing roads • Integrating bus, rail & cycling systems • Designating cycles lanes/hiring • Banning cars from areas/ on days • Converting public transport to non-fossil fuel use | | <i>Water sustainability</i> <ul style="list-style-type: none"> • Reducing urban water consumption • Reducing water leaks • Recycling water • Grey water re-use • Rainwater harvesting • Metering of water use |
| <i>Economic sustainability</i> <ul style="list-style-type: none"> • Cutting emissions through clean air laws • Lower tax rates for reducing emissions • Encouraging long-term profitability • Diversifying the economic base • Encourage start-up businesses rather than encouraging from elsewhere | | <i>Health sustainability</i> <ul style="list-style-type: none"> • Ensuring clean air & water for all • Separating pedestrians & traffic • Education of healthy lifestyles • Preventative medical systems • Open social access medical provision • Provision of green spaces |
| <i>Regional sustainability</i> <ul style="list-style-type: none"> • Reducing negative resource-demand consequences on surrounding region without cutting revenue flows • Ensuring benefits flow from urban areas to surrounding region (social & economic) • Minimising waste transfer (liquid & solid) • Cutting air pollution (contaminants, particulates and noxious gases) • Balancing in-flows of talented people with reverse movement | | <i>Global sustainability</i> <ul style="list-style-type: none"> • Minimising particulate emissions (global dimming) • Minimising CO2 emissions (global warming) • Reducing air miles for key transfers • Exchanging best practice with other cities rather than competitive advantage |

| | | |
|---|---|--|
| Q5 | <i>Some cities claim they are becoming more sustainable but without effective strategies, termed 'greenwash' (from 'whitewash'). How could you tell if sustainable claims were just false imaging of the city? One has been started...</i> | |
| <i>Ineffective (greenwash) sustainable strategies:</i> <ul style="list-style-type: none"> • There is only a short-term improvement that quickly reverts back to the original state • Improvement tackle minor environmental issues but ignore the major ones • Improvements take place, but require inputs (of capital/people/resources) that are unsustainable • Benefits accrue to the wealthiest and powerful and widen inequality • Improvements are limited to parts of the urban area in least need • Strategies increase discord and conflict • Strategies solve one key issue, but create another/others • Strategies ignore externalities | | |