SENIOR SECONDARY IMPROVEMENT PROGRAMME 2013

education
Department: Education
GAUTENG PROVINCE

GRADE 12

GEOGRAPHY

LEARNER HOMEWORK SOLUTIONS

TABLE OF CONTENTS

LEARNER HOMEWORK SOLUTIONS

HOMEWORK SOLUTIONS: SESSION 12

TOPIC: PEOPLE AND PLACES – PROCESSES AND SPATIAL PATTERNS

QUESTION 1

1.1	Number of functions and population size√√	(1 x 2) (2)
1.2	Hamlets have fewer functions and population size√√	(1 x 2) (2)
1.3	A village has a smaller population than a city√√	(1 x 2) (2)
1.4	Hamlets or villages√√ as they are the smallest √√	(2 x 2) (4)

[10]

QUESTION 2

2.1   X – scattered / dispersed √√
       Y – clustered / nucleated √√
       Z – linear √√   (3 x 2) (6)

2.2   X – settlements occur over a wide / extensive area√√
       Y – settlements are confined to a smaller area and occur close together
       Z – settlements occur in rows (lines) next to each other√√   (3 x 2) (6)

2.3   X – relief / high- lying area√√
       Y – at transport crossing√√
       Z – alongside roads at lower lying areas√√   (3 x 2) (6)

2.4   Settlement Y: economic disadvantages
- No independent decision-making√√
- Cannot show individual initiative√√
- Fields are scattered – time wasting√√
- Machinery must be shared√√
- Difficult to be economically successful√√   [Any TWO]

   Settlement X: economic advantages
- Farmer works for self, keeps own profits√√
- More efficient√√
- Can use own single tract of land√√
- Can maximise use of machinery (no need to share) √√

                                                [Any TWO]   (4 x 2) (8)

2.5   Live close together:
- Daily social contact√√
- Community involvement
- Protection √√
- Sharing of ideas√√
- Helping each other√√   [Any ONE]   (1 x 2) (2)

[28]

QUESTION 3

3.1   Site of a settlement refers to the exact piece of land√√ which is occupied by a
       settlement and the physical nature of that terrain: relief, soil characteristics,
       drainage.
       Situation of a settlement is a broader concept referring to the relationship of
       The settlement with its immediate environment√√ (how it is situated with
       respect to the general relief of the area, traffic routes, and the type of soil).   (2 x 2) (4)

3.2
3.2.1 D√√
3.2.2 A√√
3.2.3 E√√
3.2.4 B√√
3.2.5 A√√
3.2.6 C√√   (6 x 2) (12)

3.3   Danger of flooding – flood plain√√
       Marshes are present – difficult to practise farming or construct buildings –
       very costly to drain marshes√√
       Breeding ground for insects√√   [Any TWO]   (2 x 1) (2)

3.4
3.4.1 linear√√   (1 x 2) (2)
3.4.2 The forests / woodlands would be cleared – deforestation would result in
       less oxygen. √√ The river water near E could become polluted. Its water
       would be used by the inhabitants of settlement E. √√ Ecosystems would be
       affected √√
                                                         [Any TWO]   (2 x 2) (4)
                                                                              [24]

SOLUTIONS TO HOMEWORK: SESSION 13

TOPIC 1: TRANSPORT AND TRADE - THE IMPORTANCE AND CHALLENGES OF THE INFORMAL SECTOR

TOPIC 2: GLOBALISATION AND TRADE. FOOD SECURITY IN SOUTHERN AFRICA

QUESTION 1

1.1.1	Housing that is built by the government for people who cannot afford to buy or build their own homes. √√	(1 x 2) (2)
1.1.2	People use anything they can find: metal sheeting, cardboard or waste√√	(1 x 2) (2)
1.2.1	They are protesting about a lack of housing√√	(1 x 2) (2)
1.2.2	They blame the government and the local municipality. √√	(1 x 2) (2)
1.3.1	To encourage people to vote for a political party√√	(1 x 2) (2)
1.3.2	(Any TWO) People expect to receive housing√√ people will protest if promises are not delivered√√can lead to political unrest and blame/ people feel cheated if promises are not kept	(2 x 2) (4)
1.4.1	South Africa√√ Ireland √√ Netherlands √√ (or Holland) and Zambia√√	(4 x 2) (8)
1.4.2	The global economy is interconnected and global trade is easy√√	(1 x 2) (2)
1.4.3	Some countries may be cheaper than others√√ some countries may provide better quality than others	(1 x 2) (2)
1.4.4	They will base their offices wherever they can get cheap labour and/or resources√√	(1 x 2) (2)
1.5.1 (a)	He feels multi-national companies have the power to pay low wages√√ and escape regulations in their own countries√√	(2 x 2) (4)
(b)	They can threaten to move their offices to another country if workers don't accept the lower wages. √√	(1 x 2) (2)
1.5.2 (a)	It can create real peace and stability√√ and it should allow wealth sharing√√.	(2 x 2) (4)
(b)	Powerful country must not dominate the process√√ and the wealth of smaller countries should not be drained. √√	(2 x 2) (4)
1.5.3	More economically developed countries control the process of globalisation. √√	(1 x 2) (2)
1.5.4	They have the power to bargain with the work forces in less economically developed countries. √√	(1 x 2) (2)

[46]

QUESTION 2

2.1   As it is an example of exchange between countries all over the world and it
      includes an increase in foreign trade√√   (1 x 2) (2)
2.2   Approximately 15 times√√   (1 x 2) (2)
2.3   The difference in value between a country's visible exports and visible
      imports √√   (1 x 2) (2)
2.4.1 Workers in China may be poorly paid√√   (1 x 2) (2)
2.4.2 Many workers in South Africa have lost their jobs√√   (1 x 2) (2)
2.5   (Any two) Sign a trade agreement with China that it will limit its clothing
      exports √√ promote the buying of local clothing products through
      advertising √√ or the Proudly South African campaign.   (2 x 2) (4)
                                                                                         [14]

QUESTION 3

3.1   Food security is a reliable supply of food for a country and its citizens√√   (1 x 2) (2)
3.2   (Any ONE)
      The target beneficiaries are more at risk of experiencing food insecurity√√
      While men are often the breadwinners, women and children often don't
      have a source of income.
      Child-headed households often have no source of income   (1 x 2) (2)
3.3   Poor√√.
      (any one of the following)
      It is an arid area√√ it has no major cities   (2 x 2) (4)
3.4   (Any TWO)
      Encouraging people to grow their own food or produce their own supply of
      eggs, milk or meat√√
      Supporting rural development schemes by providing supplies and
      equipment√√
      Creating employment opportunities or ways of generating income   (2 x 2) (4)
3.5.1 Sources include: the Orange River √√ (for those people living in its vicinity)
      and groundwater√√ (which is pumped from boreholes)   (2 x 2) (4)
3.5.2 (Any TWO)
      Collecting and storing rainwater run-off from roofs in rainwater tanks√√
      Mulching the soil to reduce evaporation√√
      Not using groundwater faster than it is replaced
      Using grey water (from the bath or washing up) in the garden   (2 x 2) (4)
                                                                                         [20]

SOLUTIONS TO HOMEWORK: SESSION 14
TOPIC: EXAMINATION PAPER 1

QUESTION 1

1.1	B√√	
1.2	D√√	
1.3	E√√	
1.4	G√√	
1.5	F√√	(5 x 2) **[10]**

QUESTION 2

2.1	True√√	
2.2	False√√	
2.3	False√√	
2.4	True√√	
2.5	True√√	(5 x 2) **[10]**

QUESTION 3

3.1	Eye√√	(1 x 2) (2)
3.2	Centre of a hurricane where there is the lowest pressure√√ Sinking air prevents formation of clouds and rain√√ so it is an area of calm, clear conditions	(2 x 2) (4)
3.3	Increase in rainfall over a short period of time√√ Wind speed increase to hurricane force speeds of over 200km/h√√ Pressure drops as centre of cyclone approaches Temperatures drop as rain cools conditions	(2 x 2) (4)
3.4	Flooding from heavy rain√√ as well as storm surge from rising sea levels√√ along the coast. Excessive wind damage to property along beaches.	(2 x 2) (4) **[14]**

QUESTION 4

4.1	HP cell over land which is common in winter due to lower level of this system√√ Cold fronts about to hit Cape Town – further north in winter√√ Lower temperatures over the land e.g. 20°C	(2 x 2) (4)
4.2	Overcast√√ NW wind√√ 30 knot wind, temperature 12°C, dew point temperature 10°C, pressure 1 000hPa (any two)	(2 x 2) (4)
4.3	Cold front is over Marion island causing air to rise and form clouds so that is why it is overcast√√ Temperatures are low due to cold polar air behind front√√ Strong pressure gradient so winds are 30 knots	(2 x 2) (4)
4.4	HP cell over the interior√√ - air is subsiding causing cloudless conditions due to stable air.	(1 x 2) (2) **[14]**

QUESTION 5

5.1   (Any ONE)
        Convectional thunderstorms√√/frontal systems/tropical cyclones   (1 x 2) (2)
5.2   Any six relevant individual facts in paragraph format.
        Concrete and tar in urban areas do not allow infiltration of water to occur, so
        there is an increased surface run-off causing sudden rises in river system
        Move informal settlements away from river banks√√
        People should be taught not to cross rivers during flood periods√√
        People should be warned not to drive on roads that are flooded
        Educate people as to when not to cross rivers or play near rivers√√
        Fencing river banks in urban areas to prevent access√√
        Protecting wetland areas, and preventing urban developments along rivers√√
                                                                          (6 x 2) (12)

QUESTION 6

6.1   An area into which a river and its tributaries drain and from where the river
        system gets its water√√   (1 x 2) (2)
6.2   The area of highland separating two drainage basins√√   (1 x 2) (2)
6.3   Q- river flows into the sea – mouth is where a river ends√√   (1 x 2) (2)
6.4   Has source in Drakensberg, which has lots of rainfall√√. Perennial river
        flowing through very dry area so it is exotic to the region√√   (2 x 2) (4)

6.5   Dendritic √√ tree shaped pattern where all the tributaries join the main
        trunk√√. Not dependent on the rock structure over which it flows.   (2 x 2) (4)

6.6   **Advantages**
        Water can be stored √√
        Can be used for household purposes √√
        Can be used for irrigation √√
        Can be used for industries√√
        Infrastructural development √√
        Economic advantages √√
        Flood control √√
        Periodic stream can become permanent √√
        Recreational facilities and tourism √√

        Disadvantages
        Characteristics of the river channel will change √√
        Lower reaches of the river may be dry most of the time √√
        People living in the lower reaches might not be able to practice crop
        farming √√
        Flow characteristics of river will also change √√
        Displacement of local inhabitants √√
        Local ecosystems destroyed √√
        [Accept other reasonable answers]
        [Any **SIX**. Must give advantages and disadvantages]   (6 x 2) (12)
                                                                              [26]

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QUESTION 7

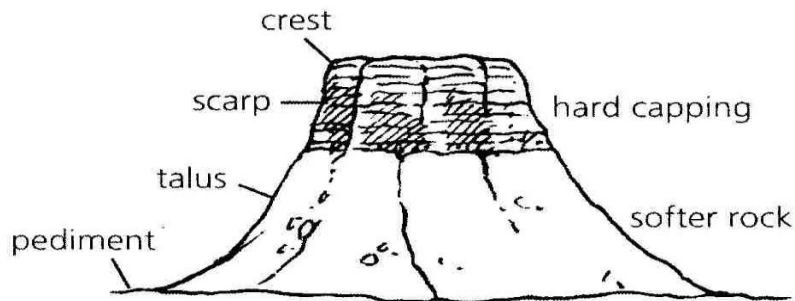7.1   Mesa√√   (1 x 2) (2)

7.2
                                                                                               (2 x 2) (4)
7.3   Labeled on the sketch map   (4 x 1) (4)
7.4   Any one of soil creep / landslides / rock falls√√
       e.g. soil creep on talus slope – slow movement of top layer of soil down the
       slope. √√   (2 x 2) (4)
                                                                                                    [14]

SOLUTIONS TO HOMEWORK: SESSION 15 TOPIC:
CONSOLIDATION – EXAMINATION PAPER 1

QUESTION 1

1.1
1.1.1 polar√√
1.1.2 mid-latitude√√
1.1.3 high√√
1.1.4 tropical easterly√√
1.1.5 convergence√√   (5 x 2) (10)

1.2
1.2.1 true√√
1.2.2 false√√
1.2.3 false√√
1.2.4 true√√
1.2.5 true√√   (5 x 2) (10)
     [20]

QUESTION 2

2.1
2.1.1 The lowest point to which a river can erode√√   (Concept)   (1 x 2) (2)
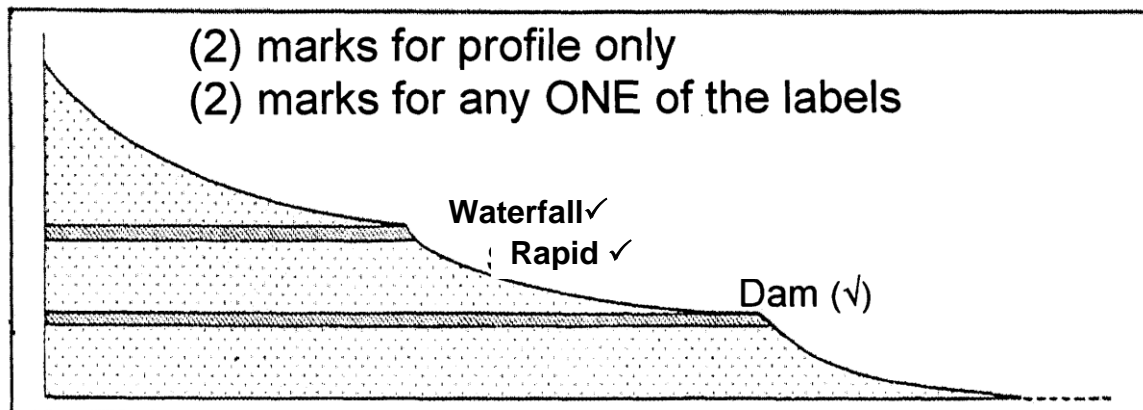
2.1.2 Rapid √√
     Waterfall
     Dam   (Any one)   (1 x 2) (2)

2.1.3

     (2 x 2) (4)
2.1.4 Ungraded√√   (1 x 2) (2)

2.1.5   The valley sides get gentler/the valley sides are lowered√√
          The width of the river increases
          The valley changes from v-shaped to more open valley

                                                        (Any one)   (1 x 2) (2)

2.1.6   The upper course vertical erosion is dominant√√
          Therefore the river has steep slopes in the upper course√√
          The valley is v-shaped√√
          In the middle course vertical erosion is slowed down and lateral erosion becomes
          dominant√√
          Therefore the valley assumes an open v- shape√√
          In the lower course lateral erosion is dominant√√
          The slopes of the valley become wide and gentler√√
          The valley becomes more open/the valley becomes a flood plain√√
          The lower course might have features such as meanders, oxbow lakes, braided
          streams, etc. √√
                          (Any six, but explaining all three courses)   (6 x 2) (12)
                                                                                      [24]

QUESTION 3

3.1
3.1.1   B√√
3.1.2   A√√
3.1.3   E√√
3.1.4   F√√
3.1.5   D√√   (5 x 2) (10)

3.2
3.2.1   It is centrally located√√   (1 x 2) (2)
3.2.2   (a)   Light industries√√   (1 x 2) (2)
          (b)   Land values are high in the transition zone and that will not be
                     suitable for heavy industries√√
                     Light industries require small plots of land therefore the transition
                     zone is affordable√√
                     Light industries can locate in high rise buildings found in the transition
                     zone√√
                     Light industries locate close to the market place√√
                     Light industries are not associated with pollution√√   (Any one)   (1 x 2) (2)
          (c)   The buildings are in a dilapidated state√√
                     Area has many social problems such as unemployment, crime and
                     prostitution√√
                     Waiting for expansion of the CBD √√   (Any one)   (1 x 2) (2)
3.2.3   Sector model√√
          Various land-use zones occupy sectors√√   (2 x 2) (4)

3.2.4 **Problems shanty towns pose to city authorities**
Lack of facilities and services√√
Houses constructed from plastic, tin, cardboard etc. √√
Land is illegally occupied√√
Crime√√
Unemployment√√
Overcrowding √√
Unhygienic conditions√√
They are vulnerable in times of floods and heavy rains which puts added
pressure on authorities√√
It is not easily accessible√√
Fire hazards√√

Solutions
Formalising the settlements√√
Improve the infrastructure (roads, buildings, facilities) √√
Provide jobs√√
Build away from the flood line√√
Provide services such as water, sewerage and electricity√√
                    (Any six. Accept other reasonable answers)   (6 x 2) (12)
                                                                              [34]

QUESTION 4

4.1
4.1.1 A√√
4.1.2 C√√
4.1.3 B√√
4.1.4 D√√
4.1.5 C√√   (5 x 2) (10)

4.2
4.2.1 When sufficient food is produced to meet the needs of people √√
                                                         (Concept)   (1 x 2) (2)
4.2.2 Reconstruction and Development Programme√√   (1 x 2) (2)
4.2.3 Shortage of fertile/arable land√√
       Natural disasters, e.g. droughts√√, floods√√, hailstorms√√
       Monoculture
       Land tenure and security
       Lack of capital by subsistence farmers to expand
       HIV/Aids lowers life expectancy of farmers and labourers
       Lack of subsidy from the government
       Inadequate support for agricultural research
       Poor infrastructure in deep rural areas
       Rural – urban migration leaves land unutilised
                    (Any two. Accept any other reasonable answers)   (2 x 2) (4)

4.2.4   Genetically modified crops are more resistant to diseases/pests/viruses√√
Produce more√√
They have greater nutritional value
They can grow under drought conditions/harsher climates
Tolerance to salty soils
More digestible crops for animals
Longer storage life
<div align="center">(Any two. Accept any other reasonable answers)   (2 x 2) (4)</div>

4.2.5   Conservation farming – use of organic compost, crop rotation, paddock
grazing, drip irrigation√√
Storing of food from seasons where there has been surplus√√
Diversify economic activities in rural areas to include cottage industries
such as dairy products and dried fruit√√
Use of genetically modified crops to increase output√√
Government to provide incentives and subsidies to farmers√√
Convert from subsistence farming to commercial farming to increase output√√
To hasten land-reform policies so that more people have access to land for farming√√
More research on how to improve food production for local conditions√√
We need more dams to be built in the drier parts of the country so that it encourages
cultivation√√
Making farming research accessible to traditional farmers to improve production√√
Use of hybrid seeds√√
Growing mixture of crops/mixed farming√√
Building terraces and stone lines to conserve soil and water√√
Laws ensuring citizens' basic food needs are met√√
Introduction of national food-security strategy√√
(Any six. Accept any other reasonable answers)
(If listed and only words/phrases used **ONE mark**. If full sentences used **TWO marks**)
<div align="right">(6 x 2) (12)</div>
<div align="right">**[34]**</div>

SOLUTIONS TO HOMEWORK: SESSION 15
TOPIC: CONSOLIDATION – PAPER 2: MAPWORK

QUESTION 1:   CALCULATION

1.1   MB = TB + MD√
            = 346°+25°09'
            = 371°09'   √   TB = 346°√
                                          MD in 1997 = 23°59'Wof TN
                                          Annual change = 5'W√
                                          Change in years = 2011 – 1997 = 14 years√
                                          Change in MD = 14 x 5' = 70'√
                                          MD in 2011 = 1°10'√
                                          MD in 2011 = 23°59' + 1°10'
                                                            = 25°09'W of TN√   **[8]**

QUESTION 2:   GIS

2.1
2.1.1 The use of satellite photographs to gather geographical information √√
                                                                                                    (1 x 2) (2)
2.1.2 Information gathered by satellites√√   (1 x 2) (2)

2.2   Maps√√
           Aerial photographs√√   (Any TWO)   (2 x 2) (4)
2.3   Spatial data is information about the real world√√
           Attribute data is additional information about a feature
           (e.g. statistical) √√   (2 x 2) (4)
2.4   Dwellings √√
           Population size√√
           Other buildings√√
           Recreational areas   (Any THREE)   (3 x 2) (6)
2.5   The raster model represents objects in the real world as data stored
           in grid structures on rectangular cells√√

           The vector model represents objects in the real world as points,
           lines and areas (polygons) √√   (2 x 2) (4)
                                                                                                         [22]

SOLUTIONS TO HOMEWORK: SESSION 15

TOPIC: CONSOLIDATION – EXAMINATION PAPER 2: MAPWORK (2)

QUESTION 1:   GIS

1.1.1 E√√
1.1.2 C√√
1.1.3 A√√   (3 x 2) (6)
 1.2   (Any two)
        Digitising maps√√
        Image processing√√
        Data management
        Spatial analysis   (2 x 2) (4)
1.3
1.3.1 Process of demarcating an area around a feature or an object√√
                                                (Concept)   (1 x 2) (2)
1.3.2 Create a buffer zone next to the coast where no development may
        take place√√   (Concept)   (1 x 2) (2)
1.4   Topographical map   (1 x 2) (2)
1.5   Check database to see if any clues left behind by the gang
        correspond with other crime scenes√√
        Check the crime scene and surroundings and see if there is a
        pattern √√
        Demarcate the areas within which the crime takes place
        Research the modus operandi of gangs that were involved in
        similar crimes.   (Any two – accept other reasonable answers). (2 x 2) (4)
                                                                                [20]

QUESTION 2

2.1   The Gauss Conformal projection is an extract (smaller section) of
        Mercator's Cylindrical Projection   (1 x 2) (2)
2.2   (Any two)
        Position always constant√√, accurate direction shown√√, true bearing
        drawn accurately, shapes of coastlines accurately shown, small islands
        have their exact shape, reliable map to use for navigation.   (2 x 2) (4)
2.3
2.3.1 The data structure in which the wetland is stored allows us to see
        how different areas of the wetland are affected by pollution√√   (1x2) (2)
2.3.2 Vector√√ town planners can identify how pollutants affected
        different locations of the wetland√√ This allows planners to give
        information to municipalities about reducing pollution.   (2 x 2) (4)
2.3.3 Least vulnerable√√
        Low vulnerability√√
        Medium vulnerability√√
        High vulnerability√√
        Very high vulnerability√√   (5 x 2) (10)

2.4
2.4.1   The geographical feature and its relative location, referenced by
        using lines of latitude and longitude. √√   (1 x 2) (2)
2.4.2   Additional information about the feature. √√   (1 x 2) (2)
2.4.3   The location of information√√   (1 x 2) (2)
2.5   Educational Department: teenage pregnancy awareness programmes√√
        Schools implementing teenage pregnancy awareness programmes√√
        Learners exposed to teenage pregnancy awareness programmes√√
        Communities (friends and wider society outside schools) informed of
        teenage pregnancy awareness by learners√√   (4 x 2) (8)
                                                                     [36]

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HOMEWORK SOLUTIONS: SESSION 15

TOPIC 1: SUSTAINABILITY- RELATED STRATEGIES AND URBAN SETTLEMENTS

TOPIC 2: STRUCTURES AND PATTERNS OF URBAN SETTLEMENTS,
          HUMAN-ENVIRONMENT INTERACTIONS AND SUSTAINABILITY
          STRATEGIES

QUESTION 1

1.1 (a)   Shona – F/D/G√√   Rosa- D√√   Violet - E√√   (3 x 2) (6)

   (b) Shona: In high-rise flat/high density – F
              Lowest cost – F
              Close to primary school – F
              Close to CBD – F
              Close to employment – F
              Good condition of apartment – D
              Urban renewal results in upgrading of buildings - G√√

       Rosa: Medium-sized house
               House has basic amenities
               Intermediate –cost house√√

       Violet: Large house
                Large plot / ground
                House has many luxury amenities
                Highest cost house √√   one reason for each choice)   (3 x 2) (6)

   (c) Low density – high income as people can afford large stands√√
       High density – low income as people can only afford small stands or afford
       housing in high-rise flats√√   (2 x 2) (4)

1.2 (a) Commercial / functional decentralisation√√   (1 x 2) (2)

   (b) Traffic congestion in CBD√√ inaccessibility√√, high level of pollution in CBD,
       High crime rate in CBD, Office space expensive in CBD, lack of open spaces,
       poor state of buildings, lack of parking for customers   (Any TWO)   (2 x 2) (4)

   (c) Less traffic/accessibility √√, more peaceful environment √√, less pollution √√,
       Modern buildings, less crime, aesthetic appeal/beauty. (any two)   (2 x 2) (4)

   (d) Suburbs on outskirts √√/ rural-urban fringe, outlying /regional shopping
       centres √√, Outlying malls/ walkways, office parks   (Any ONE)   (1 x 2) (2)

   (e) Modernise/upgrade buildings to meet needs of occupants√√
       Facadism- retaining the front of the building and build behind√√
       Gentrification – modernise old houses close to the CBD
       Develop obsolete spaces into loft apartments
       Develop entertainment opportunities in the CBD
       Demolish buildings to reduce high density
       Provide open spaces to CBD
       Develop walkways in the CBD
       Slum clearance   (Any TWO)   (2 x 2) (4)
                                                                                    [32]

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