SENIOR PHASE

GRADE 9

NOVEMBER 2016

**SOCIAL SCIENCES
GEOGRAPHY
MEMORANDUM**

MARKS: 100

QUESTION 1: MAPWORK

1.1 **MULTIPLE-CHOICE QUESTIONS**

    1.1.1 A 34°S: a latitudinal reference.   (1 x 2) (2)
    1.1.2 D river valley.   (1 x 2) (2)
    1.1.3 A 126 m.   (1 x 2) (2)
    1.1.4 C Golf course   (1 x 2) (2)
    1.1.5 D meandering channel pattern.   (1 x 2) (2)
    1.1.6 A there is deposited sediment in the river channel.   (1 x 2) (2)

1.2 **MAPWORK TECHNIQUES AND CALCULATIONS**

    1.2.1 North-easterly direction √√   (1 x 2) (2)

    1.2.2 56º √√   (1 x 2) (2)

    1.2.3

Method 1:		**Method 2:**
$\dfrac{4,7 \text{ cm } \sqrt{\ } \times 50\ 000\ \sqrt{\ }}{100\ 000\ \sqrt{\ }}$ = 2,35 km √	**OR**	4,7 cm ÷ 2 √√ = 2,35 km √√

                (4)

1.3 **MAP INTERPRETATION AND ANALYSIS**

    1.3.1 A One advantage: Clean energy, √√ less greenhouse gases
           emitted, √√ reduces reliance on coal-powered energy stations, √√
           allows for localised generation of energy √√
           (Any 1 logical choice).   (Any 1 x 2) (2)

        B One disadvantage: Noise of spinning turbines, √√ takes up
           space, √√ can cause the death of flying birds and bats, √√ looks
           unsightly, spoils the view √√
           (Any 1 logical choice)   (1 x 2) (2)

    1.3.2 (a) Low-income residential √   (1)

        (b) Small properties, √√ houses are small, √√ houses are built close
            together. √√
            (Any 1 logical choice)   (Any 1 x 2) (2)

    1.3.3 Good infrastructure (roads, railway lines), √√ windpumps and furrows
        for the provision of water, √√ windbreaks to protect field from prevailing
        winds, cultivated lands divided into camps, farms have names. √√
        (Any 2 logical choices)   (Any 2 x 2) (4)

    1.3.4 Preservation of fauna and flora (biodiversity), √√ filtering waste, √√
        absorbs flood water, √√ recreational purposes. √√
        (Any 2 logical choices)   (Any 2 x 2) (4)

[35]

QUESTION 2:   **SURFACE FORCES THAT SHAPE THE EARTH AND DEVELOPMENT ISSUES**

2.1 **PROCESSES**

      2.1.1   Exfoliation √   (1)
      2.1.2   Attrition √   (1)
      2.1.3   Hydraulic action √   (1)
      2.1.4   Deflation √   (1)
      2.1.5   Abrasion √   (1)

2.2 **FEATURES OF EROSION**

      2.2.1   A   Arch √   (1)
               B   Ox-bow lake √   (1)
               C   Barchan dune √   (1)
               D   Cirque √   (1)
               E   Wave-cut platform √   (1)

      2.2.2   A   Wave action along the coast. √   (1)
               B   River action or surface runoff √   (1)
               C   Wind action √   (1)
               D   Moving ice or glacier movement √   (1)
               E   Wave action along the coast √   (1)

2.3 **SOIL EROSION**

      2.3.1   Removal of soil √ by forces of erosion such as running water and wind. √   (2)

      2.3.2   Agricultural production declined, √ the number of daily meals have declined √ and the quantity of food per meal has declined. √
              (Any 1 explanation from the text)   (Any 1 x 1)   (1)

      2.3.3   Overgrazing, √√ over-cultivation, √√ deforestation, ploughing across contour lines, √√ over-use of pesticides and herbicides. √√
              (Any 2 logical choices)   (Any 2 x 2)   (4)

      2.3.4   A   **Reduce soil erosion**
                      To limit tilling of the soil, √√ crop rotation, √√ stock rotation, √√ reforestation, √√ cultivation parallel to contour lines to limit run-off, √√ constructing anti-erosion walls √√, use of windbreaks. √√
                      (Any 2 x 2)   (4)

            B   **Improve agricultural production**
                      To genetically manipulate seed varieties, √√ greenhouses and plastic tunnels, √√ permaculture or hydroponics, √√ use of naturally occurring methods to curb pests, √√ education of farmers, √√ to use a variety of compatible plant species, √√ rain-tanks, drip-irrigation, √√ use of appropriate technology that the people can understand and afford.
                      (Any 2 logical choices to improve small-scale cultivation)
                      (Any 2 x 2)   (4)

2.4   **UNFAIR TRADE AND AID PROVISION PRACTICES**

     2.4.1   Less Economically Developed Countries (LEDC) or developing countries. √ (Do not accept poor countries)   (1)

     2.4.2   More Economically Developed Countries (MEDC) or developed countries.√ (Do not accept rich countries)   (1)

     2.4.3   The tree trunk has been processed into planks which are now easier to use and therefore are more valuable. √√   (1 x 2)   (2)

     2.4.4   The poor man provided the resource √. Once the resource was processed the poor man had to buy it back from the rich man at a higher cost. √ As the poor man could not afford the chicken sheds the rich man said he would help the poor man by giving him a loan. The poor man is then charged interest and is in debt. √ The rich man then has the monopoly of the resource which he can buy at fixed prices. √ The poor man has no choice and has to trade with the rich man because of his debt. √
         (Any logical choice from the text)   (Any 1 x 2)   (2)

     2.4.5   Fair trade: To develop more equitable relationships between developed and developing countries:

         To create opportunities for economically disadvantaged producers, √ fair trade is open to all. √
         To improve managerial skills and open up market opportunities for the producers, √ pay a fair price for a resource, √ sustainable environmental practices and responsible methods of production. √
         (Any 2 logical choices)   (Any 2 x 2)   (4)
                                                                                               [40]

QUESTION 3: SUSTAINABLE USE OF RESOURCES

3.1   **SUSTAINABLE VERSUS UNSUSTAINABLE LINE FISHING PRACTICES IN SOUTH AFRICA**

     3.1.1   **Unsustainable fishing** (concept): irresponsible fishing, √ to not limit the amount and size of fish species caught, √ to not preserve future fish supplies. √   (Any 2 x 1)   (2)

     3.1.2   By informing consumers √ by using different colours √ of which fish species is in plentiful supply and can be eaten (green colour). Those species that are threatened (orange) and those that are endangered (red colour) should not be eaten. √ This helps the consumer to make responsible choices√ when purchasing fish.
         (Any 3 explanations)   (Any 3 x 1)   (3)

3.1.3   A   Over-fishing or commercial line fishing √√   (Any 1 x 2) (2)

          B   Large-scale commercial fishing√√ Use of illegal fishing methods, for example, the use of gill nets √√
(Any logical choice)   (Any 1 x 2) (2)

3.1.4   Limits set on the number of boats and their catch capacity,√√ limits set to catch only certain species in an area, √√ areas where fishing can take place are monitored those breaking the law are fined, √√ Marine Protected Areas (MPA's) to allow fish to breed, √√ only certain size limits are allowed, √√ mesh size of nets must allow immature fish to escape. √√
(Any 2 logical choices)   (Any 2 x 2) (4)

3.2 GREENHOUSE GAS EMISSIONS (GIVEN OFF) FROM ELECTRICITY PRODUCTION

3.2.1   <u>Greenhouse gases</u>: gases in the atmosphere that absorb and retain heat √ in the Earth's atmosphere. √   (2 x 1) (2)

                        AND/OR

       <u>Global warming</u>: An increase in greenhouse gases√ is causing a rise in atmospheric temperatures. √ This is called global warming.
(2 x 1) (2)

                        AND/OR

       <u>Climate change</u>: Global warming is causing a change in normal weather patterns √ over time bringing about climatic change. √
(2 x 1) (2)

                        AND/OR

       <u>Carbon footprint</u>: amount of carbon emissions √ each person, according to their life-styles, is responsible for. √   (2 x 1) (2)
Max. (Any 2 x 2) (4)

3.2.2   A   Coal-fired power stations √   (1)
          B   Nuclear power √   (1)
          C   Nuclear power √√   (1 x 2) (2)

3.2.3   <u>Carbon taxes</u>: fining businesses as punishment for releasing carbon emissions √√, use of low-carbon technologies that release less carbon, √√ LED and fluorescent light bulbs, educate people about the intelligent use of electricity, √√ implement a solar-water geyser programme, turn electrical appliances off at the wall when not in use.
(Any 2 logical choices)   (Any 2 x 2) (4)
[25]
TOTAL: 100