AL/2016/22/E-I

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரீட்சைத் திணைக்களம்
Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka
ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
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අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2016 අගෝස්තු
கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2016 ஓகஸ்ட்
General Certificate of Education (Adv. Level) Examination, August 2016

භූගෝල විද්‍යාව	I
புவியியல்	I
Geography	**I**

| 22 | E | I |

පැය දෙකයි
இரண்டு மணித்தியாலம்
Two hours

Index No. : ....

Instructions:

* *This paper consists of two parts.*
* *Part I consists of 30 multiple choice questions. Answers to Part I should be written on this paper itself.*
* *Answer scripts of both Part I and Part II, should be attached together and handed over.*

For Examiner's use only.

	Question No.	Marks
Part I	1 - 30	
Part II	1	
	2	
	3	
Total		

	Signature	Code Number
1st Examiner's		
2nd Examiner's		
Additional Chief Examiner's		
Chief Examiner's		
Arithmetic Checker's		

Part I

● *Select the correct answer for each question and write its number on the dotted line.*

1. What is answer that gives three drainage features identifiable in 1 : 50 000 topographic maps of Sri Lanka?
   (1) Watershed, cliff, swamp.
   (2) Meander, escarpment, trellis drainage.
   (3) Braided river, meander, spring.
   (4) Pot hole, ox-bow lake, escarpment.
   (5) Spring, estuary, saddle gap.   (......)

2. Select the statement that describes a frequency polygon most correctly.
   (1) Presents total value of each class of data.
   (2) Drawn connecting mid-points of each bar of a histogram.
   (3) Presents cumulative values of each class of data.
   (4) Shows deviation of each data from the median.
   (5) Organizes a data series in an ascending order.   (......)

3. The most appropriate cartographic method of presenting direction and volume of migration in a country is
   (1) composite bar graph.
   (2) choropleth map.
   (3) flow chart.
   (4) clock diagram.
   (5) dual bar graph.   (......)

4. Which of the following cartographic methods could be used to present continuous data?
   (1) Dot map
   (2) Line graph
   (3) Bar graph
   (4) Divided circle
   (5) Flow chart   (......)

5. What are the two main types of data that can be accommodated in a Geographic Information System (GIS)?
   (1) Nominal and Rank data
   (2) Continuous and Discrete data
   (3) Spatial and Aspatial data
   (4) Global Positioning Systems and Remote Sensing data
   (5) Landsat images and Google data   (......)

[see page two

6. What is meant by Remote Sensing?
   (1) A method of collecting data relevant to remote areas
   (2) A method of data downloading through the Internet
   (3) A data collection method through Global Positioning System
   (4) A data collection method without being to the object
   (5) A data processing method introduced very recently   (......)

7. Which of the following is an example for non-spatial data?
   (1) Total population in the city of Colombo
   (2) Path of Highway from Kottawa to Galle
   (3) West coastal line of Sri Lanka
   (4) Distribution of housing units in a village
   (5) Paddy land boundaries of a DS Division   (......)

8. The middle value of an ordered array of numbers is the
   (1) mode.   (2) mean.   (3) median.
   (4) range.   (5) central tendency.   (......)

9. The number of accidents in the city of Colombo during 2015 is a
   (1) discrete data.   (2) continuous data.
   (3) qualitative data.   (4) nominal data.
   (5) rank data.   (......)

10. Which one of the following is qualitative data?
    (1) Height of a student
    (2) Liking or disliking of a product
    (3) Monthly income of a group of a government servants
    (4) Yield from a paddy plot
    (5) Profit of a company   (......)

11. Which one of the following answers correctly gives two depositional landforms created by continental glaciers?
    (1) Crag and tail and Cirque
    (2) Esker and Kame
    (3) Crag and tail and Arete
    (4) Roche moutonnee and Cirque
    (5) Arete and Roche moutonnee   (......)

12. According to Koppen's climatic classification, what is the symbol that indicates the Mediterranean climate?
    (1) BSk   (2) Cfa   (3) Csa   (4) Dfa   (5) Dfc   (......)

13. In Sri Lanka, the two major soil types confined to the Dry Zone are
    (1) reddish brown earth and red yellow podzolic.
    (2) red yellow latasols and red yellow podzolic.
    (3) reddish brown earth and non-calcic brown earth.
    (4) red yellow podzolic and non-calcic brown earth.
    (5) reddish brown earth and red yellow latosols.   (......)

14. Which one of the following answers correctly gives the two sedimentary rocks made by chemical reaction?
    (1) Gypsum and shale   (2) Dolomite and limestone
    (3) Shale and limestone   (4) Gypsum and limonite
    (5) Limestone and limonite   (......)

15. The perihelion and aphelion take place respectively in the months of
    (1) January and July.   (2) July and January.
    (3) January and October.   (4) October and January
    (5) July and October.   (......)

16. A landform in a rocky shore associated with wave action is
    (1) sea stack.   (2) inselberg.   (3) sand spits.   (4) fjords.   (5) beach.   (......)

17. Which one of the following answers correctly gives three landforms created by intrusive volcanic activity?
    (1) Dykes, sills, fissure   (2) Sills, laccolith, horst
    (3) Dykes, sills, laccolith   (4) Laccolith, phacolith, crater
    (5) Crater, sills, laccolith   (......)

18. Which one of the following answers state three topographical features seen in the youth stage of a river basin?
    (1) Narrow valley, river capture, waterfalls
    (2) River capture, levees, meander
    (3) Waterfalls, wide valley, ox-bow lakes
    (4) Flood plains, river capture, delta
    (5) Alluvial fans, waterfall, levees   (......)

19. Which answer correctly gives three locations of mineral sands deposits in Sri Lanka?
    (1) Eppawala, Kaikawala, Seruwila   (2) Kaikawela, Polkotuwa, Eppawala
    (3) Pulmoddai, Eppawala, Ratnapura   (4) Pulmoddai, Kaikawala, Polkotuwa
    (5) Galle, Polkotuwa, Batticaloa   (......)

20. What is the answer that shows three locations where wet patana grasslands are found in Sri Lanka?
    (1) Hortan plains, Ambewela, Bopaththalawa.
    (2) Ambewela, Bopaththalawa, Haggala.
    (3) Hortan plains, Knuckles, Haggala.
    (4) Bopaththalawa, Samanala kanda, Yala.
    (5) Haggala, Ambewela, Udawalawa.   (......)

21. The total of population under age 14 and above age 65 divided by the population aged between 15–64 is defined as
    (1) child dependency ratio.   (2) dependency ratio.
    (3) aged dependency ratio.   (4) child adult ratio.
    (5) age sex ratio.   (......)

22. What was first pre-requisite for the start of urbanization in European countries?
    (1) Establishment of a local government system
    (2) Establishment of colonies
    (3) Agricultural surplus production in the rural sector
    (4) Privatization of land ownership in the country
    (5) Regional development programmes   (......)

23. The seasonal migration of animal livestock from lowland pastures to mountain regions is known as
    (1) intensive subsistence agriculture.   (2) mixed cropping and livestock farming.
    (3) crop rotation.   (4) transhumance.
    (5) shifting cultivation.   (......)

24. The focus of the Green Revolution in Asia was on
    (1) improving crop yields in commercial agriculture.
    (2) reducing starvation among people.
    (3) inventing new forms of food to add variety to human diet.
    (4) saving underdeveloped land from urbanization.
    (5) encouraging the use of fertilizers less damaging to the environment.   (......)

25. Early civilizations of the World developed mainly in
    (1) areas with abundant mineral resources that helped industrialization.
    (2) areas with climatic diversity where a mix of crops could be cultivated.
    (3) mountain areas where inhabitants could live safely.
    (4) 'Savanna' areas where hunting could be practised.
    (5) river valleys where agriculture could be practised.   (......)

26. Which one of the following answers correctly shows the three factors that determine the growth of population in a country?
    (1) Births, deaths and life expectancy   (2) Births, deaths and out-migration
    (3) Births, deaths and migration   (4) Births, deaths and in-migration
    (5) Births, natural increase and out-migration   (......)

27. "Silicon Valley' is an agglomeration of
    (1) silica sand associated industries.   (2) petrochemical industries.
    (3) tourism related industries.   (4) high-tech industries.
    (5) motor vehicle production industries.   (......)

28. 'Nochchiyagama' and 'Aralaganwila' townships of the Mahaweli Development Programme are situated respectively in the systems of
    (1) H and C.
    (2) H and B.
    (3) C and L.
    (4) C and G.
    (5) H and L.
    (......)

29. What is the most populated country in South-east Asia?
    (1) Kampuchea
    (2) Vietnam
    (3) Singapore
    (4) Indonesia
    (5) Laos
    (......)

30. Which one of the following answers correctly shows the largest wheat producing four countries in the world in descending order?
    (1) U.S.A., Russia, China, India
    (2) India, U.S.A., Russia, China
    (3) China, India, U.S.A., Russia
    (4) China, Russia, India, U.S.A.
    (5) Russia, U.S.A., China, India
    (......)

* *

අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2016 අගෝස්තු
கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2016 ஓகஸ்ட்
General Certificate of Education (Adv. Level) Examination, August 2016

භූගෝල විද්‍යාව	I
புவியியல்	I
Geography	I

| 22 | E | I |

Part II

Instructions:

* *Answer **two questions only**, selecting question **No. 1** and **one** question from questions **2** and **3**.*
* *A part of 1 : 50 000 topographic map of Bibile and a graph paper are provided.*

1. You are provided with a part of the 1 : 50 000 topographic map of Bibile, published by the Survey Department of Sri Lanka. The contours are shown at 100 feet interval. Answer the following questions based on the map.

> **N.B.**
> * **Answers should not be written on the map.**
> * You should clearly state the relevant question number and its subsection in the answer script.
> * Do **not** attach the provided map to your answer script.

  (i) Name the **two** landforms found in quadrilaterals **A** and **B**.   (01 *mark*)

  (ii) Name the **two** settlement types shown in quadrilaterals **C** and **D**.   (01 *mark*)

  (iii) Name the **four** land use types found in places marked by **E**, **F**, **G** and **H**.   (02 *marks*)

  (iv) Discuss briefly main features of the road network in the map area.   (04 *marks*)

  (v) Explain how the topography has inhibited the distribution of human settlements in the southwest quadrant of the map area.   (06 *marks*)

  (vi) Describe briefly the distribution of public services in the map area.   (06 *marks*)

2.   (i) Define Geographical Information System (GIS).   (02 *marks*)

  (ii) State **two** similarities between conventional mapping systems and Geographical Information System (GIS).   (04 *marks*)

  (iii) Briefly describe **four** advantages of the Geographical Information Systems (GIS) compared to conventional mapping systems.   (08 *marks*)

  (iv) Briefly discuss **three** applications of modern cartography.   (06 *marks*)

3. **Table 1** gives data on annual rainfall for Nuwara Eliya from 1991 to 2005.

Table 1 – Annual Rainfall of Nuwara-Eliya, 1991 – 2005

| Year	Rainfall (mm)
1991	1836.6
1992	1842.4
1993	2097.8
1994	2303.4
1995	2082.5
1996	2176.5
1997	2028.0
1998	1784.3
1999	1893.6
2000	1824.3
2001	1681.0
2002	1517.4
2003	1373.8
2004	1741.1
2005	1347.1

mean   1835.3 mm

Source : Meteorology Department, Sri Lanka

Using the data in the **table 1** answer the following questions.

(i) Calculate the median of the above data distribution.   (02 *marks*)

(ii) Calculate deviations from the mean of the data given in the **table 1**.   (04 *marks*)

(iii) Draw a deviation graph using the data calculated in (ii) above.   (10 *marks*)

(iv) Discuss the rainfall pattern of Nuwara-Eliya for the period 1991–2005 that can be identified
from the graph drawn.   (04 *marks*)

✳ ✳ ✳

N

අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2016 අගෝස්තු
கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2016 ஓகஸ்ற்
General Certificate of Education (Adv. Level) Examination, August 2016

22 I

භූගෝල විද්‍යාව I
புவியியல் I
Geography I
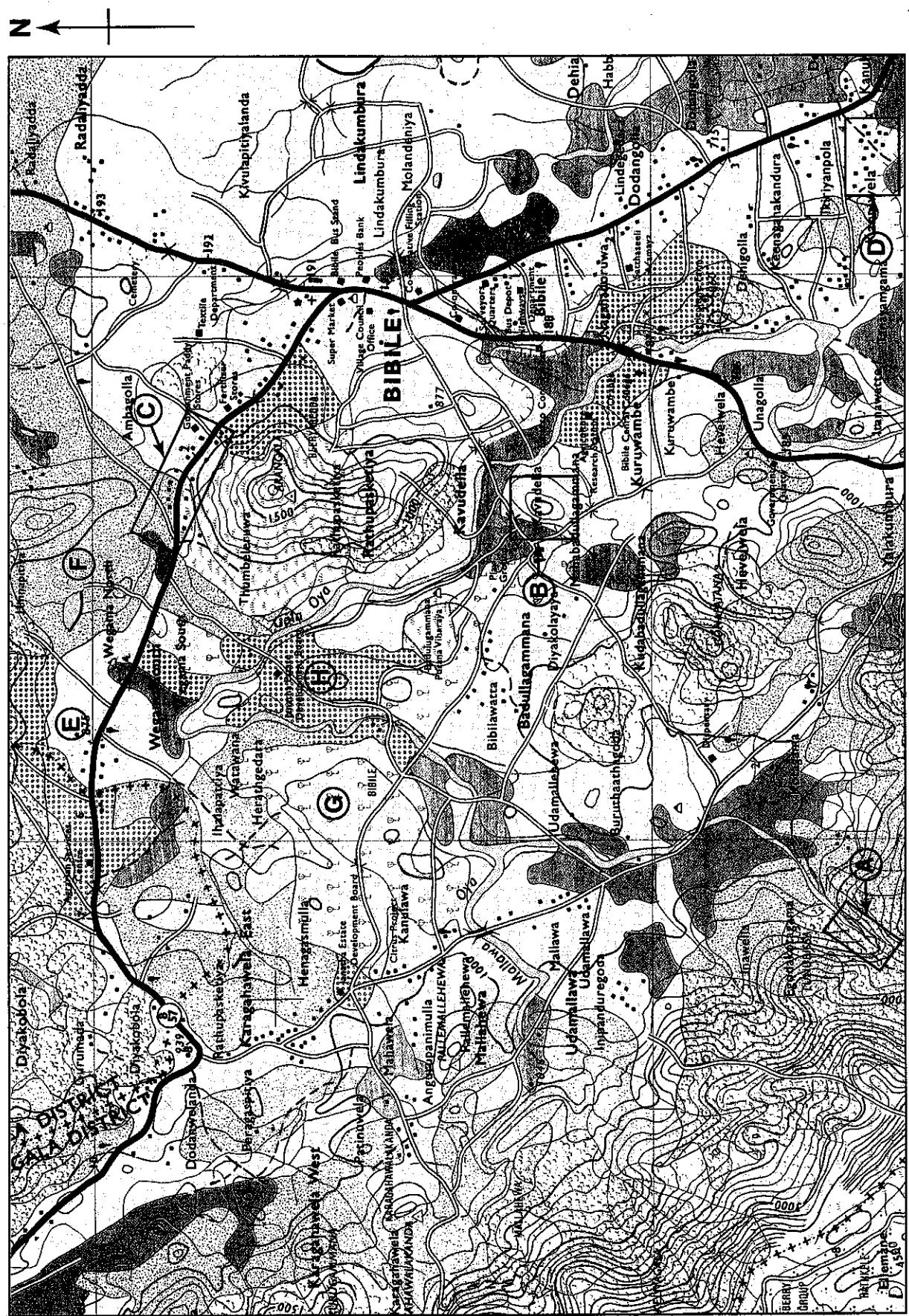
SCALE 1 : 50 000

සමෝච්ච රේඛා අන්තරය අඩි 100
சமவுயரக்கோடு இடைவெளி 100 அடி
Contour Interval 100 feet

BIBILE

Lindakumbura
Lindakumbura

Radaliyadda
Kivulapitiyakanda
Molandeniya

Dodango

Unagolla
Kuruwamb
Kuruyamb

Thombelewwa
Weganna Oya
Walawwa

Badullagammana
Piyakolayaya
Udamallehewa

Bibilawatta

PALLEMALLEHEWA

Kanilawa
Mallawa
Udamallawa
Udamillawa
Inpanjuregoda

Diyakobola
Diyakobola
Dodanweland
Karagahawela East
Herangedara
Ihdagardya
Katwana

GALE DISTRICT
DISTRICT

AL/2016/22/E-II

භූගෝල විද්‍යාව	II
புவியியல்	II
Geography	**II**

22 E II

| පැය තුනයි |
| மூன்று மணித்தியாலம் |
| **Three hours** |

Instructions:

* Selecting at least **two** questions from each part, answer **five** questions only.

Part I - Physical Geography

1. (i) Explain the difference between weather and climate. (02 marks)

   (ii) Describe briefly, **three** factors controlling climate. (06 marks)

   (iii) Describe **three** salient features of the 'Tropical Rainy Climates' (Af) according to Koppen's classification. (06 marks)

   (iv) Describe seasonal pattern of annual rainfall in Sri Lanka. (06 marks)

2. (i) The world map given below shows areas of deserts marked ① to ④. State correctly the names of the **four** deserts. (02 marks)
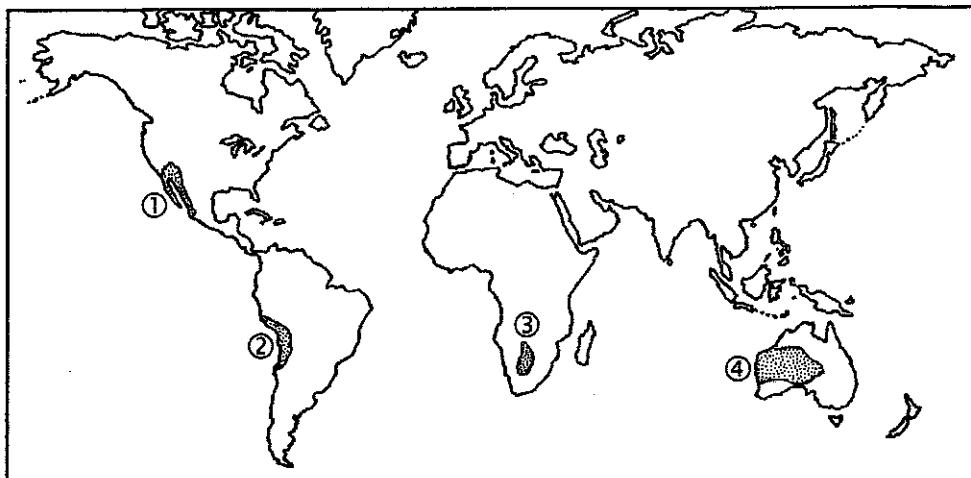
   (ii) Explain the **three** landform formation processes in desert areas. (06 marks)

   (iii) Describe with diagrams **three** landforms created by water in desert areas. (06 marks)

   (iv) With the aid of diagrams, describe **three** landforms created by wind erosion in desert areas. (06 marks)

3. (i) What is meant by a 'natural disaster'? (02 marks)

   (ii) Explain **three** human activities that aggravate the intensity of natural disasters. (06 marks)

   (iii) Describe briefly **four** main stages of the disaster management cycle. (06 marks)

   (iv) Explain **four** measures that have been taken by the governments of Sri Lanka to mitigate the impact of natural disasters. (06 marks)

4. (i) State what is meant by a 'wetland'. (02 marks)

   (ii) Describe briefly **three** environmental benefits provided by a wetland. (06 marks)

   (iii) Discuss **three** major threats faced by wetlands in Sri Lanka. (06 marks)

   (iv) Describe **three** measures that have been taken by the governments of Sri Lanka to conserve wetlands. (06 marks)

[see page two

Part II - Human Geography

5. (i) State **four** factors that affect the distribution of population. (02 *marks*)

(ii) Describe briefly **four** salient features of the World population distribution that can be identified from the data given in **Table 1**. (06 *marks*)

Table 1

World Population Distribution(%) 1900 – 2050

Area Year	1900	1950	2000	2050
Developing World	69.9	71.0	82.4	86.7
Africa	8.1	8.8	13.4	23.5
Asia	57.3	55.6	60.5	55.2
Latin America and the Caribbean	4.5	6.6	8.5	8.0
Developed World	30.1	29.0	17.6	13.3
North America	5.0	6.8	5.2	5.0
Europe	24.7	21.7	11.9	7.7
Oceania	0.4	0.5	0.5	0.6
World	100.0	100.0	100.0	100.0

Source: United Nations World Population Report 2010 (Revised)

(iii) Discuss briefly **three** factors responsible for the salient features in world population distribution that you have identified in above (ii). (06 *marks*)

(iv) Discuss briefly **four** problems associated with the nature of world population distribution. (06 *marks*)

6. (i) Name **four** salient features of the intensive subsistence agriculture. (02 *marks*)

(ii) Describe **three** changes that have taken place in intensive subsistence agriculture in recent times. (06 *marks*)

(iii) Briefly explain **three** factors affecting the marketing process of the world agricultural production. (06 *marks*)

(iv) Discuss in brief **three** recent trends in the agricultural land use in Sri Lanka. (06 *marks*)

7. (i) Name **four** major mineral resources available in Sri Lanka. (02 *marks*)

(ii) Describe briefly the distribution of mineral resources you have named in (i) above. (04 *marks*)

(iii) Discuss, giving **four** examples, how mineral resources contribute to the economic development of Sri Lanka. (06 *marks*)

(iv) Briefly explain **four** adverse environmental effects of mineral extraction industry in Sri Lanka. (08 *marks*)

8. (i) State what is meant by 'globalization'. (02 *marks*)

(ii) Describe briefly with **four** examples how the 'Internet' contributes to the acceleration of the globalization process. (06 *marks*)

(iii) Briefly discuss the impact of the Information Technology on the agricultural development of Sri Lanka. (06 *marks*)

(iv) Discuss in brief, **three** problems emerged in the developing countries in relation to Information Technology. (06 *marks*)

* * *