AL/2015/22/E-I

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
Department of Examinations, Sri Lanka Department of இலங்கைப் பரீட்சைத் திணைக்களம் Sri Lanka Department of Examinations, Sri Lanka
Department of Examinations, Sri Lanka

අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2015 අගෝස්තු
கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2015 ஓகஸ்ட்
General Certificate of Education (Adv. Level) Examination, August 2015

භූගෝල විද්‍යාව I		පැය දෙකකි
புவியியல் I	22 E I	இரண்டு மணித்தியாலம்
Geography I		***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. Which one of the following answers state three physical features shown in the 1 : 50 000 topographic maps?
   (1) high land, slopes, natural vegetation   (2) forests, islands, crops
   (3) grasslands, valleys, paddy lands   (4) plains, convex slope, settlements
   (5) marshes, concave slope, bridges   (......)

2. The true length of a river shown by 10 cm on 1 : 50 000 topographic map is
   (1) 2.5 km   (2) 5 km   (3) 7.5 km   (4) 10 km   (5) 15 km   (......)

3. The answer that correctly shows the representative fraction of a smallest scale map is
   (1) 1 : 2 000   (2) 1 : 5 000   (3) 1 : 40 000
   (4) 1 : 200 000   (5) 1 : 250 000   (......)

4. A multiple line graph is most suitable to show the
   (1) annual changes of exports.
   (2) land use pattern in a given year.
   (3) attendance of students in a class.
   (4) tourists arrival by countries of origin.
   (5) monthly usage of electricity by industrial sectors.   (......)

5. Which is the correct answer that describes the advantage of using secondary data?
   (1) Can be observed in a field
   (2) Time is saved
   (3) Collected according to researcher's objectives
   (4) Reliability is at a high level
   (5) Can be used without referring to source   (......)

[see page two

6. Which answer correctly shows three variables with discrete data?
    (1) tourist arrivals, lakes and children in family
    (2) height, land use and distance
    (3) precipitation, elevation and soil moisture
    (4) weight, land use and evaporation
    (5) soil moisture, evaporation and time   (......)

7. Two measures that are used to show the dispersion of a data set are
    (1) inter-quartile range and mean deviation.
    (2) range and cumulative frequency.
    (3) median and percentile.
    (4) standard deviation and mean.
    (5) mode and upper quartile.   (......)

8. The most suitable graph to show the production and imports rice of Sri Lanka together in a given period of years is
    (1) compound bar graph.   (2) dual bar graph.
    (3) compound line graph.   (4) simple vertical bar graph.
    (5) frequency polygon.   (......)

9. Two important data input methods in Geographic Information System (GIS) are
    (1) digitising and Global Positioning System.
    (2) digitising and graph.
    (3) Global Positioning System and printing.
    (4) statistical tables and reports.
    (5) digital file and map.   (......)

10. An automated technology used for capture, storage, manipulate, analysis and display of spatial data is known as
    (1) the Global Positioning System.   (2) the Geographic Information System.
    (3) Remote sensing.   (4) Aerial photograph.
    (5) Landsat Imagery   (......)

11. Which one of the following answers correctly gives the approximate limits of the stratosphere?
    (1) 18 km – 40 km   (2) 10 km – 60 km
    (3) 14 km – 50 km   (4) 16 km – 80 km
    (5) 10 km – 40 km   (......)

12. Two gases comprising the highest volume of gas in the atmospheric composition are
    (1) nitrogen and oxygen.   (2) nitrogen and carbon dioxide.
    (3) oxygen and methane.   (4) oxygen and ozone.
    (5) helium and krypton.   (......)

13. The major factor that is responsible for the 'general circulation' of the atmosphere is
    (1) difference in pressure gradient force between land and sea.
    (2) the existence of low and high pressure belts over latitudes.
    (3) the frictional force exerted at the lower latitudes.
    (4) the variation of Coriolis force in different latitudes.
    (5) centrifugal force that occurs at different latitudes.   (......)

14. Intensity of river erosion is mainly determined by
    (1) nature of slope and geological structure.
    (2) nature of slope and meanders.
    (3) nature of eroded materials and river-cliff.
    (4) levees and river cliff.
    (5) delta and floodplain.   (......)

15. An erosional landform created by mountain glaciers is
    (1) zeugens.   (2) moraine.   (3) esker.
    (4) drumlin.   (5) hanging valley.   (......)

16. Which one of the following answers correctly gives the two types of rocks that are formed by metamorphism of sedimentary and igneous rocks?
    (1) Gneiss and marbles   (2) Granite and marbles
    (3) Basalt and marbles   (4) Limestone and dolomite
    (5) Gabbro and dolomite   (......)

17. Which one of the following answers correctly includes three landforms caused by tensional movements?
    (1) Thrust fault, rift fault and anticline
    (2) Thrust fault, normal fault and syncline
    (3) Normal fault, rift fault and syncline
    (4) Thrust fault, rift fault and step faulting
    (5) Thrust fault, syncline and horst   (......)

18. Main physical properties of the soil are
    (1) colour, structure and moisture.   (2) colour, structure and salinity.
    (3) structure, moisture and acidity.   (4) colour, acidity and salinity.
    (5) acidity, structure and colour.   (......)

19. Which one of the following three places consist of highland series metamorphic rocks in Sri Lanka?
    (1) Rakwana hills, Central hills and Tabbowa
    (2) Central hills, Rakwana hills and Kataragama hills
    (3) Rakwana hills, Kataragama hills and Andigama
    (4) Kataragama hills, Tabbowa and Andigama
    (5) Tabbowa, Andigama and Pallama   (......)

20. World's tropical rain forests are mainly found in
    (1) Brazil, Myanmar, Vietnam and South Africa.
    (2) Brazil, Myanmar, Central India and South Africa.
    (3) Central India, Malaysia, Central Chile and California.
    (4) Brazil, Zaire, California and South Australia.
    (5) Brazil, Myanmar, Laos and Thailand.   (......)

21. A population pyramid with a wide base that narrows as the age group progress indicates that population is
    (1) declining rapidly.   (2) increasing rapidly.
    (3) declining slowly.   (4) stabilizing at present level.
    (5) reaching an optimum level.   (......)

22. Of the world population approximately what percentage lives in the developing countries at present?
    (1) 25%   (2) 35%   (3) 40%   (4) 50%   (5) 80%   (......)

23. Which of the following answers shows a tertiary economic activity?
    (1) Working as a handicraft maker
    (2) Working as a bus driver
    (3) Working in fish canning industry
    (4) Labourer in a iron and steel plant
    (5) Working as a farmer preparing land for cultivation   (......)

24. Which one of the following statements best describes the shifting cultivation?
    (1) A monoculture that changes crops annually in response to market demand
    (2) A subsistence agricultural practice that abandon one plot of land after several years and moving to a another
    (3) An intensive agriculture that grows crops and tends animals in one plot of land
    (4) An agriculture that is practised in terraced lands in the tropical regions
    (5) A migratory agricultural system that moves livestock from one ground to another (......)

25. Which answer correctly gives the four major concentrations of population in the world?
    (1) East Asia, Southern Africa, Southern Europe, North-East North America
    (2) East Asia, South Asia, North-West Europe, Southern Africa
    (3) South-East Asia, South Asia, North-East North America, Central America
    (4) East Asia, South Asia, North-West Europe, North-East North America
    (5) North-West Europe, Western North America, East Asia, South Asia   (......)

26. Which answer correctly shows the two largest cities in the World in 2025 in terms of population?
    (1) London and Tokyo.   (2) Tokyo and Mumbai.
    (3) New York and Mumbai.   (4) Tokyo and Dacca.
    (5) Mumbai and Kolkata.   (......)

27. The answer that correctly shows the two districts with highest and lowest urban population in Sri Lanka respectively is
    (1) Colombo and Hambantota.   (2) Colombo and Kegalle.
    (3) Gampaha and Hambantota.   (4) Colombo and Nuwara Eliya.
    (5) Kandy and Kegalle.   (......)

28. The two countries that produce the largest amount of cane sugar in the world at present are
    (1) Brazil and Mexico.   (2) Indonesia and Thailand.
    (3) Brazil and India.   (4) Brazil and Pakistan.
    (5) India and China.   (......)

29. The country where the 'Ainu' indigenous people are living is
    (1) India.   (2) South Africa.
    (3) New Zealand.   (4) Australia.
    (5) Japan.   (......)

30. The two countries having the highest Human Development Index (HDI) in South Asia in 2013 are
    (1) Maldives and Bhutan.   (2) Maldives and India.
    (3) Sri Lanka and Maldives.   (4) Sri Lanka and Nepal.
    (5) Maldives and Bangladesh.   (......)

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භූගෝල විද්‍යාව	I		22 E I
புவியியல்	I		
Geography	**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 Pallegama and* **two** *graph papers are provided.*

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1. You are provided with a part of the 1 : 50 000 topographic map of Pallegama, published by the Survey Department of Sri Lanka. The contours are shown at 20 meter 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) State the elevation of the highest point in the map area in meters.   (01 *mark*)

   (ii) Identify and name the type of slopes along the lines marked as AB and CD in the map.   (02 *marks*)

   (iii) Identify and name the types of human settlements shown in quadrants number 1 and 2 in the map.   (02 *marks*)

   (iv) Redraw the tank in quadrant number 3 to the scale of 1 : 25 000.   (04 *marks*)

   (v) Briefly describe the drainage pattern in the map area.   (03 *marks*)

   (vi) Discuss the factors that have influenced the distribution of paddy cultivation in the map area.   (04 *marks*)

   (vii) Discuss major reasons for **not** extending agricultural activities and human settlements in the western half of the map area.   (04 *marks*)

2. (i) State what the main components of a Geographic Information System (GIS) are.   (02 *marks*)

   (ii) Explain **three** important elements that are essential for the effective use of Geographic Information System.   (06 *marks*)

   (iii) Describe the advantages of Geographic Information System techniques in data management and analysis.   (06 *marks*)

   (iv) Describe **three** salient features that can be identified in the recent development of modern cartography.   (06 *marks*)

3. The value of agricultural exports of Sri Lanka by major categories for selected five years from 2005 to 2013 in billion rupees is given in **Table 1**.

Table 1 – Agricultural Exports of Sri Lanka from 2005 to 2013 (Rs. billion)

Category	2005	2007	2009	2011	2013
Tea	81.5	113.6	136.2	164.9	199.4
Rubber	4.7	12.1	11.3	22.8	9.2
Coconut	11.4	14.2	18.6	29.4	26.5
Other agricultural crops	18.4	42.7	43.9	62.4	98.8

Source : Economic and Social Statistics of Sri Lanka, 2014

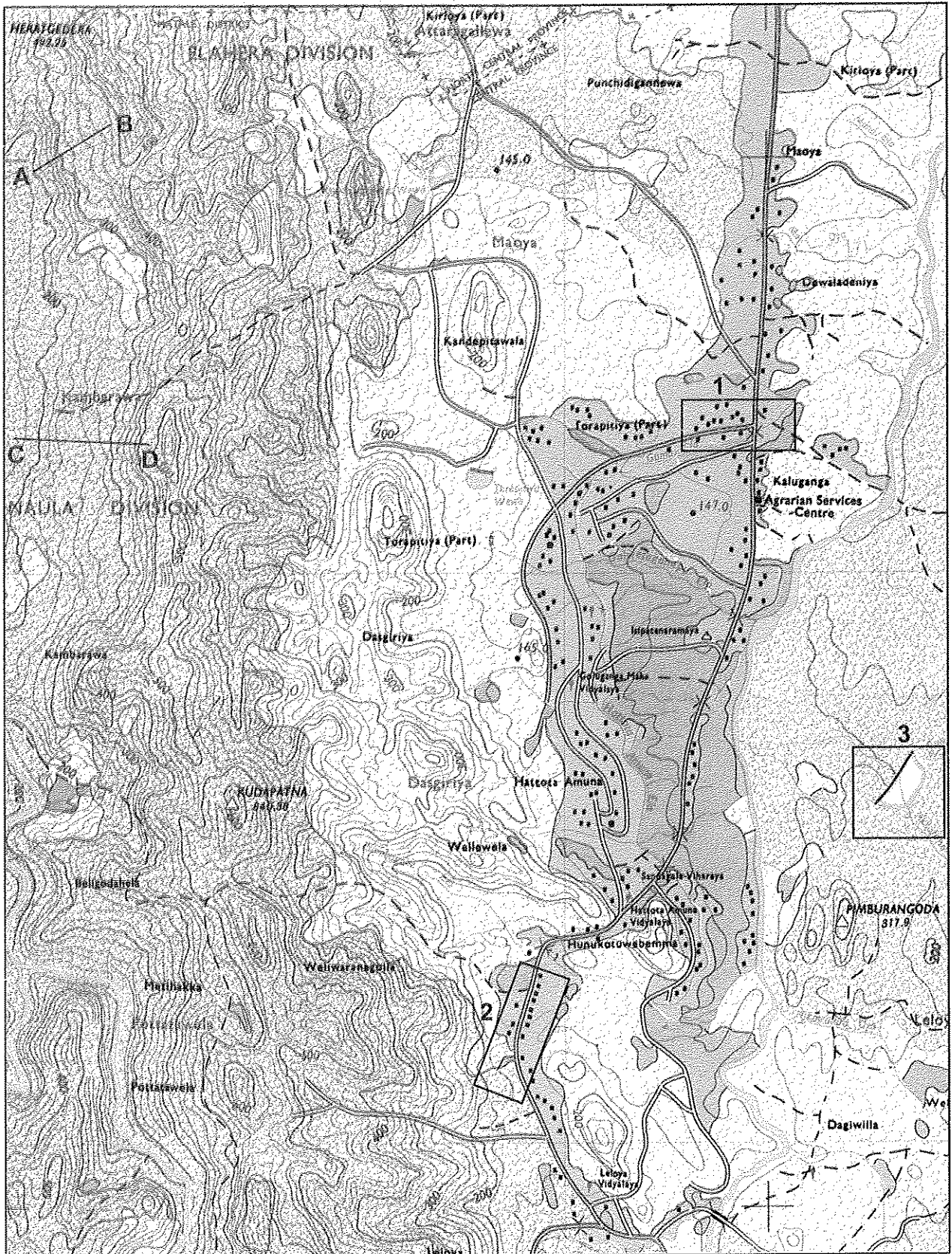Using the data given in **Table 1**, answer the following questions.

 (i) Draw a compound bar graph to represent data given in **Table 1**.   (10 *marks*)

 (ii) State briefly, **three** trends in agricultural exports of Sri Lanka that can be identified from the graph.   (06 *marks*)

(iii) Explain briefly with the help of sketch diagrams another suitable cartographic method, other than the Compound Bar Graph, to depict the data given in **Table 1**.   (04 *marks*)

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General Certificate of Education (Adv. Level) Examination, August 2015

22 I

භූගෝල විද්‍යාව I
புவியியல் I
Geography I

SCALE 1:50,000

සමෝච්ච රේඛා අන්තරය මීටර 20
சமவுயரக்கோடு இடைவெளி 20 மீற்றர்
Contour Interval 20 metres

AL/2015/22/E-II

අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2015 අගෝස්තු
கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2015 ஓகஸ்ற்
General Certificate of Education (Adv. Level) Examination, August 2015

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) (a) Draw a sketch diagram depicting the long profile of a river. (02 *marks*)

    (b) Mark the **three** major phases of the long profile and name **one** process that can be identified in each of those phases. (03 *marks*)

   (ii) Explain briefly in what ways a river transports its sediment load. (03 *marks*)

   (iii) Explain the process of formation of **three** landforms created by erosion in a river valley. (06 *marks*)

   (iv) Describe **three** major landforms created by depositional process in a river valley. (06 *marks*)

2. (i) Name **six** major tectonic plates of the lithosphere of the Earth. (03 *marks*)

   (ii) Describe **two** major landforms created by the movement of tectonic plates in the lithosphere. (05 *marks*)

   (iii) Explain **three** physical consequences caused by an earthquake. (06 *marks*)

   (iv) Explain **three** measures that can be adopted to minimize the damage caused by an earthquake. (06 *marks*)

3. (i) Name **four** factors that contribute to the process of soil formation. (02 *marks*)

   (ii) Selecting **two** factors that you have named in (i) above, discuss how they contribute to the soil formation process. (04 *marks*)

   (iii) (a) Draw a diagram of a soil profile. (02 *marks*)

     (b) Describe **four** characteristics of the soil profile, you have drawn. (06 *marks*)

   (iv) Discuss **four** human factors responsible for soil degradation in Sri Lanka. (06 *marks*)

4. (i) Name **four** major biomes in the world. (02 *marks*)

   (ii) Selecting **one** of the biomes you have named in (i) above, describe **four** salient characteristics of it. (06 *marks*)

   (iii) Describe **three** problems faced by the biome that you have described in (ii) above. (06 *marks*)

   (iv) Explain briefly **four** measures that have been adopted to conserve forests in Sri Lanka. (06 *marks*)

Part II - Human Geography

5. (i) State briefly what is meant by population migration. (02 *marks*)

   (ii) Describe **four** salient characteristics of present global population migration. (04 *marks*)

   (iii) Discuss in brief **four** problems associated with global population migration at present. (06 *marks*)

   (iv) Evaluate **four** contributions made by the outmigration of labour to the socio-economic development of Sri Lanka. (08 *marks*)

6. **Table 1** shows the rank order of the ten largest rice producing countries in the world in 1970 and 2013.

Table 1 - Ten largest rice producing countries in the world in 1970 and 2013

1970			2013		
Rank	Countries	Production (in MT'000)	Rank	Countries	Production (in MT'000)
1	China …	109 990	1	China …	230 290
2	India …	63 338	2	India …	159 200
3	Indonesia …	19 331	3	Indonesia …	71 280
4	Bangladesh …	16 715	4	Bangladesh …	51 500
5	Japan …	16 493	5	Vietnam …	44 039
6	Thailand …	13 850	6	Thailand …	38 787
7	Vietnam …	10 173	7	Myanmar …	28 000
8	Myanmar …	8 162	8	Philippines …	18 439
9	Brazil …	7 553	9	Brazil …	11 759
10	Philippines …	5 578	10	Japan …	10 758
	World …	316 346		World …	745 710

Source: Geo Hive – Rice Production: 1996 – 2015

(i) With reference to **Table 1** state **four** trends in rice production in the World between 1970 and 2013.   (04 *marks*)

(ii) Select **one** of the trends you have stated in (i) above and give **two** factors responsible for it.   (04 *marks*)

(iii) Discuss **three** factors underlying the increase of rice production in Sri Lanka.   (06 *marks*)

(iv) Explain **two** problems encountered by rice production in Sri Lanka.   (06 *marks*)

7. (i) Name **four** major motor vehicle producing countries in the world at present.   (02 *marks*)

(ii) Discuss in brief **four** factors that determine the location of the motor vehicle production industry.   (06 *marks*)

(iii) Examine **four** recent trends in the motor vehicle production industry of the world.   (06 *marks*)

(iv) Discuss in brief **four** problems faced by the motor vehicle producing countries at present. (06 *marks*)

8. (i) (a) Name **four** major tourism zones of Sri Lanka.   (02 *marks*)

(b) Name **four** countries from which the highest number of tourists are coming to Sri Lanka.   (02 *marks*)

(ii) Describe **three** major factors that have made Sri Lanka a tourist attraction.   (06 *marks*)

(iii) Explain **four** factors that show how tourism industry contributes to the economic development of Sri Lanka.   (06 *marks*)

(iv) Describe **two** measures that have been adopted by the government to develop tourist industry in Sri Lanka.   (04 *marks*)

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