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கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2018 ஓகஸ்ற்
General Certificate of Education (Adv. Level) Examination, August 2018

29.08.2018 / 1300 – 1500

භූගෝල විද්‍යාව	I
புவியியல்	I
Geography	**I**

22 E I

පැය දෙකකි
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		
2nd Examiner		
Additional Chief Examiner		
Chief Examiner		
Arithmetic Checker		

Part I

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

1. Two physical features that can be shown in a topographic map are
   (1) river meander and escarpment.
   (2) rainfall and paddy land.
   (3) main roads and slopes.
   (4) scrubs and ruins.
   (5) swamps and railways. (......)

2. Two geographical features that can be represented by broken lines in a topographic map are
   (1) stream and minor road.
   (2) footpath and local authority boundary.
   (3) built-up area and watershed.
   (4) tunnel and cart track.
   (5) ferry and irrigation canal. (......)

3. Three sources of secondary data are
   (1) satellite image, news papers and census reports.
   (2) diaries, aerial photographs and observations.
   (3) television programmes, weather reports and questionnaire surveys.
   (4) annual reports, labour force surveys and interviews.
   (5) soil map, weather reports and group discussions. (......)

4. Which one of the following items is most suitable to be represented by a flow map?
   (1) Population density
   (2) Passenger transport
   (3) Rainfall variation
   (4) Paddy yield
   (5) Location of towns (......)

5. The vector data model in Geographic Information System (GIS) is based on
   (1) pixels.   (2) lines.   (3) points.
   (4) polygons.   (5) coordinates.   (......)

6. What are the two main types of data in a Geographic Information System?
   (1) Vector and Raster   (2) Spatial and Attributes
   (3) Continuous and Discrete   (4) Locational and Discrete
   (5) Attributes and Raster   (......)

7. The main spatial data capturing methods in Geographic Information System are
   (1) screen digitising, Global Positioning System and satellite data.
   (2) Google data, Global Positioning System and secondary data.
   (3) Global Positioning System, secondary data and satellite data.
   (4) screen digitising, secondary data and Google data.
   (5) satellite data, Google data and secondary data.   (......)

8. Which of the following is an example for spatial data?
   (1) Total population in a city
   (2) Time of a particular event
   (3) Contour lines
   (4) Quality of water of agro-wells in a region
   (5) Daily rainfall and temperature data in a city   (......)

9. What are the two main branches of statistics?
   (1) Descriptive statistics and Inferential statistics
   (2) Central tendency and Dispersion
   (3) Sample and Population
   (4) Histogram and Frequency polygon
   (5) Range and Inter Quartile Range   (......)

10. Which of the following options represents qualitative data?
    (1) Height of a group of students   (2) Public opinions on private education
    (3) Results of a competition   (4) Spot heights
    (5) Mobile phone numbers   (......)

11. What is the option that shows three metamorphic rocks?
    (1) Quartzite, Marble, Schist   (2) Quartzite, Schist, Basalt
    (3) Marble, Schist, Basalt   (4) Olivine, Marble, Granite
    (5) Granite, Quartzite, Gneiss   (......)

12. Three topographical features found in a river valley are
    (1) floodplain, delta and ox-bow lakes.
    (2) alluvial fans, delta and pot holes.
    (3) levees, ox-bow lakes and yardang.
    (4) braided stream, floodplain and inselberg.
    (5) meanders, ox-bow lakes and bahadas.   (......)

13. Three topographical landforms created by waves are
    (1) headland, sea stacks and cliff.   (2) sea stacks, kames and levee.
    (3) cliff, pothole and delta.   (4) arches, cliff and wadis.
    (5) cliff, headland and sheet erosion.   (......)

14. What is the salient feature of Low country wet-zone in Sri Lanka?
    (1) Annual rainfall is more than 2000 mm
    (2) Average annual temperature is 20 °C
    (3) Receives rainfall from cyclones
    (4) Cloudless clear sky
    (5) Long dry season   (......)

[see page three

15. One of the major characteristics of tropical rainforests in Sri Lanka is
    (1) closely grown tall trees.
    (2) leaves at the ground level being small.
    (3) not having several vegetation strata.
    (4) low floral diversity.
    (5) May - September being the drought season.   (......)

16. Which of the following options correctly indicates the vertical change in temperature in the mesosphere?
    (1) Increases   (2) Decreases
    (3) No change   (4) Become zero
    (5) Fluctuates   (......)

17. Which of the following answers shows the correct order of organizational levels in the biosphere?
    (1) Species, community, population, ecosystems, biomes
    (2) Species, population, community, ecosystems, biomes
    (3) Species, population, community, biomes, ecosystems
    (4) Species, community, ecosystems, biomes, population
    (5) Species, ecosystems, community, population, biomes   (......)

18. Three major processes of river erosion are
    (1) corrosion, saltation, hydraulic action.
    (2) corrosion, transportation, hydraulic action.
    (3) corrosion, abrasion, hydraulic action.
    (4) corrosion, sliding, hydraulic action.
    (5) abrasion, saltation, hydraulic action.   (......)

19. The Elnino phenomenon begins in the
    (1) Eastern part of the Pacific Ocean.
    (2) Western part of the Pacific Ocean.
    (3) Eastern part of the Indian Ocean.
    (4) Western part of the Indian Ocean.
    (5) Southern part of the Indian Ocean.   (......)

20. The Coriolis force is caused by the
    (1) inclination of the earth.
    (2) rotation of the earth.
    (3) oscillation of the Inter Tropical Convergence Zone.
    (4) La-nina phenomena
    (5) changes in temperature in land and ocean surface.   (......)

21. The **two** most important factors that determine the location of handicraft industries in Sri Lanka are
    (1) land and raw-materials.   (2) labour and raw-materials.
    (3) energy and capital.   (4) capital and transportation.
    (5) capital and market.   (......)

22. Which of the following options shows three salient feature of an expansive population pyramid?
    (1) Convex shape, narrow bottom, expanded top
    (2) Dome shape, expanded bottom, narrow top
    (3) Concave shape, expanded bottom, narrow top
    (4) Lean shape, narrow bottom, narrow top
    (5) Oval shape, narrow bottom, expanded top   (......)

23. Three tourist locations in the east coast region of Sri Lanka are
    (1) Nilaveli, Pasikuda and Casuarina beach.
    (2) Nilaveli, Pasikuda and Arugam Bay.
    (3) Casuarina beach, Arugam Bay and Nilaveli.
    (4) Dambakolapatuna, Casuarina beach and Nilaveli.
    (5) Nilaveli, Pasikuda and Dambakolapatuna.   (......)

24. A recent trend in urban settlements in Sri Lanka is
    (1) high rate of urban growth.
    (2) high urban growth in district capitals.
    (3) de-industrialization in Colombo suburbs.
    (4) development of Colombo as a metropolis.
    (5) less migration to Greater Colombo Metropolitan Region.   (......)

25. Three main characteristics of tribal groups are
    (1) speak same language, have common habits and living in a small area.
    (2) speak different languages, have common habits and living in a small area.
    (3) speak same language, have various habits and living in a small area.
    (4) speak different languages, have various habits and living in different areas.
    (5) speak different languages, having common habits and living in different areas.   (......)

26. Which of the following answers correctly shows, in descending order, four crops in Sri Lanka in terms of land area cultivated?
    (1) Tea, Rubber, Paddy, Coconut   (2) Coconut, Tea, Paddy, Rubber
    (3) Paddy, Tea, Coconut, Rubber   (4) Tea, Paddy, Rubber, Coconut
    (5) Paddy, Coconut, Tea, Rubber   (......)

27. By 2050, the most urbanized continent in the world will be
    (1) Africa.   (2) Asia.   (3) Europe.
    (4) North America.   (5) Latin America.   (......)

28. The general fertility rate is the number of live births
    (1) per 100 females in the age group 15 – 50 in a given year.
    (2) per 1000 females in the age group 15 – 49 in a given year.
    (3) per 100 females in the age group 14 – 50 in a given year.
    (4) per 1000 females in the age group 18 – 49 in a given year.
    (5) per 100 females in the age group 18 – 50 is a given year.   (......)

29. Which of the following options correctly indicates the two townships that belong to the Mahavali settlement systems 'H' and 'G' respectively?
    (1) Thambuttegama and Dehiattakandiya
    (2) Girandurukotte and Bakamuna
    (3) Galnewa and Bakamuna
    (4) Eppawala and Aralanganwila
    (5) Nochchiyagama and Dehiattakandiya   (......)

30. At present the leading buyer of Graphite from Sri Lanka is
    (1) Canada.   (2) India.   (3) Japan.
    (4) United Kingdom.   (5) Australia.   (......)

* *

அධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2018 අගෝස්තු
கல்விப் பொதுத் தராதரப் பத்திர (உயர் தரப்) பரீட்சை, 2018 ஓகஸ்ற்
General Certificate of Education (Adv. Level) Examination, August 2018

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 Hanguranketa and a graph paper are provided.

1. You are provided with a part of the 1 : 50,000 topographic map of Hanguranketa, published by the Survey Department of Sri Lanka. The contours are shown at 20 metre 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** drainage features shown in quadrilaterals **A** and **B** in the map.   (02 *marks*)

 (ii) Name the **two** topographic features shown in quadrilaterals **C** and **D**.   (02 *marks*)

 (iii) Discuss briefly, the salient features of topography and drainage in the map area.   (04 *marks*)

 (iv) Name **four** public services available in the area within the quadrilateral **E**.   (04 *marks*)

 (v) Comment on the distribution pattern of human settlements in the map area.   (04 *marks*)

 (vi) Discuss in brief the geographical factors that affect the land use pattern in the map area. (04 *marks*)

2. (i) Define 'Global Positioning System' (GPS).   (02 *marks*)

 (ii) Briefly explain the main segments of a Global Positioning System.   (04 *marks*)

 (iii) Describe **three** factors which can affect the accuracy of Global Positioning System data.   (06 *marks*)

 (iv) Explain **four** advantages of Global Positioning System based on their application.   (08 *marks*)

3. **Table 1** shows the average yield of paddy (kg per hectare) by districts in Sri Lanka for Maha Season in 2015. Answer the following questions based on the table.

Table 1

Serial No.	District	2015 Maha	Serial No.	District	2015 Maha
1	Colombo	3,431	14	Monaragala	3,993
2	Gampaha	3,594	15	Jaffna	3,096
3	Kalutara	3,644	16	Killinochchi	3,689
4	Galle	3,738	17	Vavuniya	4,816
5	Matara	4,266	18	Mullativu	3,330
6	Ratnapura	3,924	19	Mannar	5,489
7	Kegalle	3,857	20	Anuradhapura	4,802
8	Kurunegala	3,609	21	Polonnaruwa	5,306
9	Puttalam	4,028	22	Trincomalee	4,473
10	Kandy	4,203	23	Batticaloa	2,686
11	Matale	4,602	24	Ampara	4,078
12	Nuwara Eliya	3,717	25	Hambantota	6,134
13	Badulla	4,761			

Source: Department of Census and Statistics Colombo Sri Lanka, 2015

(i) Prepare a frequency distribution table using above data. Limit the number of classes to five (5).   (06 *marks*)

(ii) Calculate the mean paddy yield in Maha season, 2015 using the frequency distribution table prepared in (i) above.   (05 *marks*)

(iii) Construct a histogram and frequency polygon using the frequency distribution prepared in (i) above.   (05 *marks*)

(iv) Based on the exercises done in (ii) and (iii) above, briefly describe **two** major characteristics of the average paddy yields in the Maha season of 2015 in the districts of Sri Lanka.   (04 *marks*)

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கல்விப் பொதுத் தராதரப் பத்திர (உயர் தரப் பரீட்சை, 2018 ஓகஸ்ட்
General Certificate of Education (Adv. Level) Examination, August 2018

භූගෝල විද්‍යාව II	22 E II	30.08.2018 / 1300 – 1610
புவியியல் II		
Geography II		

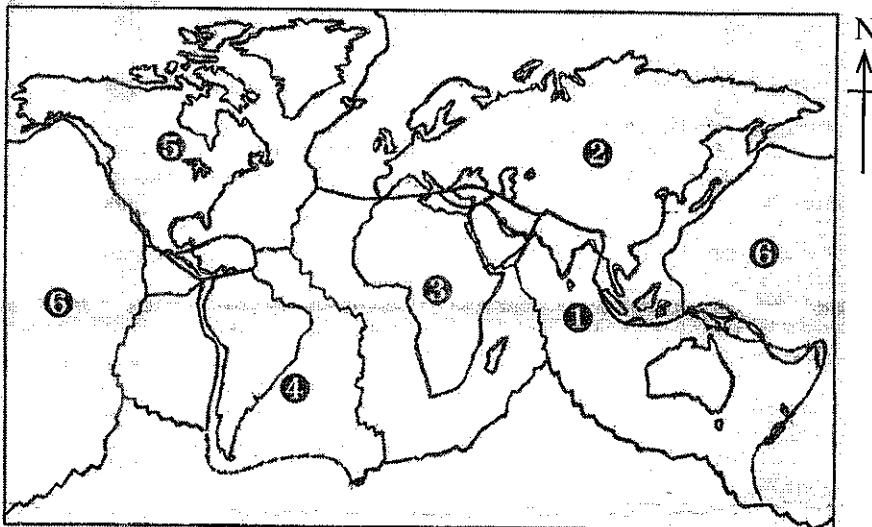| පැය තුනයි | අමතර කියවීම් කාලය - මිනිත්තු 10 යි |
| மூன்று மணித்தியாலம் | மேலதிக வாசிப்பு நேரம் - 10 நிமிடங்கள் |
| ***Three hours*** | **Additional Reading Time - 10 minutes** |

Use **additional reading time** to go through the question paper, select the questions and decide on the questions that you give priority in answering.

Instructions:

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

Part I - Physical Geography

1. (i) Name **four** major factors that affect the climate of Sri Lanka.   (02 *marks*)

   (ii) Select any **two** from the factors you have mentioned in (i) above and explain how they affect the climate of Sri Lanka.   (06 *marks*)

   (iii) Describe **three** main characteristics of the climate in the low country wet zone of Sri Lanka.   (06 *marks*)

   (iv) Discuss **three** physical processes that induce climate change.   (06 *marks*)

2. (i) What is meant by landslide?   (02 *marks*)

   (ii) Explain **three** natural factors affecting landslides.   (06 *marks*)

   (iii) Explain **three** major impacts of landslides on the physical environment. (06 *marks*)

   (iv) Explain **three** measures that have been taken by the government of Sri Lanka to minimize the damage caused by landslides.   (06 *marks*)

3. (i) The world map given below shows six geo-tectonic plates numbered ❶-❻. Name the **six** geo-tectonic plates correctly.   (03 *marks*)

   (ii) Explain **three** processes taking place in the plate boundaries with suitable diagrams. (06 *marks*)

   (iii) Name **one** landform type each associated with compressional and tensional forces and describe their formation process.   (06 *marks*)

   (iv) Explain **two** main disasters occurring on the earth surface due to plate movements. (05 *marks*)
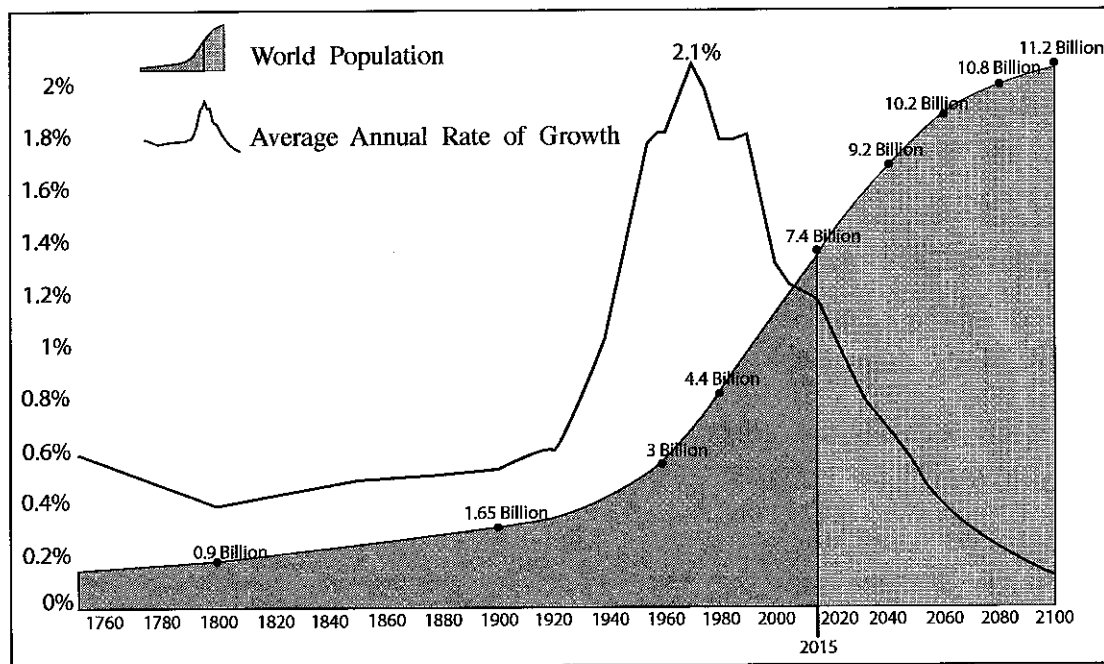
4. (i) Name the **two** main components of an ecosystem. (02 *marks*)

   (ii) Explain briefly **three** major types of natural ecosystems in Sri Lanka. (06 *marks*)

   (iii) Name **four** types of wildlife reserves in Sri Lanka and explain **two** major threats faced by them. (06 *marks*)

   (iv) Discuss **three** legal measures adopted by the government of Sri Lanka to minimize the threats faced by the wildlife reserves. (06 *marks*)

Part II - Human Geography

5. (i) Name the factors affecting population growth. (02 *marks*)

   (ii) Examine **three** factors that have been responsible for the rapid growth of population in the world that took place since the mid-1990s as shown in the Figure 1 below. (06 *marks*)

Figure 1
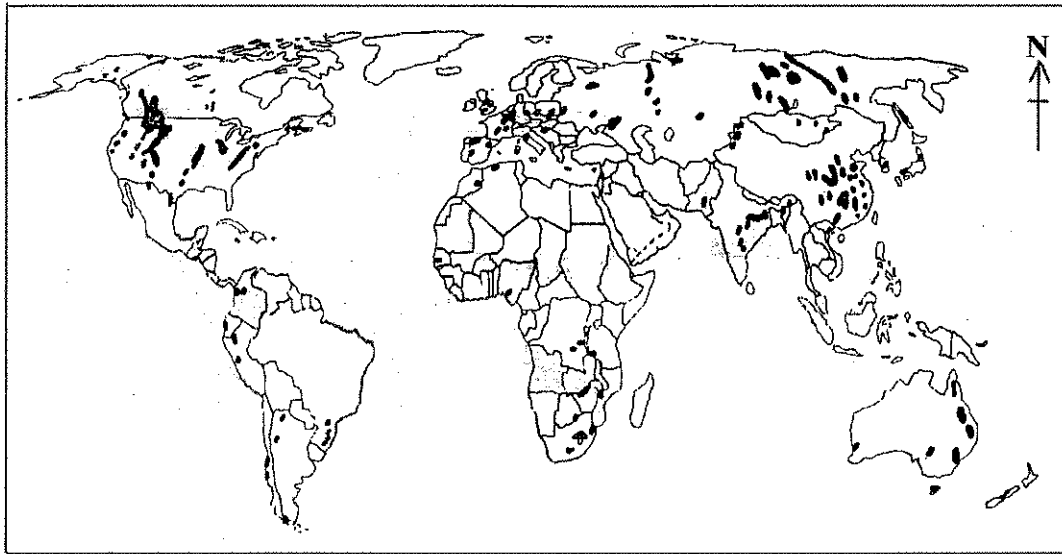
World Population Growth, 1750 – 2100

Source: United Nations World Population Prospects, 2017 Revision

   (iii) Discuss **three** factors that have been responsible for the decline in the average annual growth rate of world population since 1960s as shown in Figure I above. (06 *marks*)

   (iv) Explain **three** salient features in the growth of population in Sri Lanka since 1990s. (06 *marks*)

6. Figure 2 shows the distribution of coal reserves in the world.

Figure 2
Distribution of coal reserves in the world

(i) Identify **two** salient features in the distribution of coal fields in the world as shown in figure 2. (02 *marks*)

(ii) Explain **three** characteristics in the utilization of coal as a source of energy. (06 *marks*)

(iii) Examine the potentials of **three** alternative energy sources as a solution to the future energy crisis. (06 *marks*)

(iv) Describe **three** issues associated with the utilization of coal as an energy source in Sri Lanka. (06 *marks*)

7. (i) What is an urban settlement? (02 *marks*)

(ii) Describe **three** changing patterns of world urbanization. (06 *marks*)

(iii) Explain **three** socio-economic problems emerged due to the urbanization in developing countries. (06 *marks*)

(iv) Examine **three** changes that have occurred in the urbanization in the Colombo Metropolitan Region in Sri Lanka. (06 *marks*)

8. (i) Define 'Multinational Corporation'. (02 *marks*)

(ii) Explain **three** benefits acquired by developing countries through the Multinational Corporations. (06 *marks*)

(iii) Discuss **three** problems that have emerged due to the intervention of Multinational Corporations in developing countries. (06 *marks*)

(iv) Describe **three** measures that Sri Lanka could adopt to increase the Foreign Direct Investments. (06 *marks*)

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