3 (Sem–4/CBCS) GGY HC 1

2023

GEOGRAPHY

(Honours Core)

Paper : GGY–HC–4016

(Environmental Geography and Disaster Management)

Full Marks : 60

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions : 1×7=7

   (a) Name the largest ecosystem of the earth.

   (b) What is the main cause of greenhouse effect ?

   (c) Global warming is expected to result in _____ sea level. *(Fill in the blank)*

(d) Name the area on the earth's surface which has maximum biodiversity.

(e) In which year National Environmental Policy was adopted ?

(f) Name the area in India which has maximum biodiversity.

(g) When was National Disaster Authority formed ?

2. Answer the following questions : 2×4=8

(a) What do you mean by hazard ?

(b) Write *two* common problems in disaster management.

(c) What are the *two* major classifications of disaster ?

(d) Write *two* major environmental problems being faced by developing countries.

3. Answer the following questions : ***(any three)*** 5×3=15

(a) Write the adverse effects of depletion of trees.

(b) What do you mean by floods ? Write *three* causes of floods. 2+3=5

(c) What is land degradation ? Write *any two* major causes of land degradation. 2+3=5

(d) What are different types of ecosystem ? Explain *any one* of them with examples. 2+3=5

(e) Differentiate between solid waste and liquid waste.

4. Answer the following questions : ***(any three)*** 10×3=30

(a) What are the important characteristics of hotspot and biodiversity ? Explain with example. 4+6=10

(b) Write the nature and scope of environmental geography. 5+5=10

(c) What are the major global environmental problems ? Explain *any one* of them in detail. 3+7=10

(d) What do you mean by biome ? Write the major biomes of the world. 2+8=10

(e) Differentiate between disaster and hazard and write their major consequences. 2+8=10

(f) Write a note on national environmental policies and their activities on disaster management. 6+4=10

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3 (Sem–4/CBCS) GGY HC 2

2023

GEOGRAPHY

(Honours Core)

Paper : GGY–HC–4026

(Population and Settlement Geography)

Full Marks : 60

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions : 1×7=7

   (a) First stage of demographic transition model is associated with

   (i) low birth rate and low death rate

   (ii) high birth rate and high death rate

   (iii) declining birth rate and low death rate

   (iv) high birth rate and low death rate

   (Choose the correct option)

(b) On which principle is the $k = 4$ hierarchy based in Christaller's central place theory?

(c) The estimated present population of the world is

(i) 8.0 billion

(ii) 7.2 billion

(iii) 6.5 billion

(iv) 5.5 billion

(Choose the correct option)

(d) Which year is considered as the demographic divide or year of a great divide in the history of development of population geography?

(e) Which of the following is the Urban-Rural population ratio according to the census 2011?

(i) 26 : 42

(ii) 38 : 66

(iii) 31 : 69

(iv) 35 : 62

(Choose the correct option)

(f) The ratio between total population and cultivated area is known as _____ density. *(Fill in the blank)*

(g) Burgess theory of internal structure states that the concentric circles are based on the amount that people will pay for the land.

*(Write True **or** False)*

2. Answer the following questions in brief : 2×4=8

(a) What do you mean by 'hierarchy of settlements'?

(b) Define primate city with an example.

(c) What do you mean by 'Error of Omission' during a population survey?

(d) What do you mean by 'Threshold and Range' in the study of human geography?

3. Answer ***any three*** questions of the following : 5×3=15

(a) What is population growth? What are the causes behind positive and negative growth rates of population? 2+3=5

(b) Mention the main assumptions/ propositions of Malthusian theory of population growth. Cite *two* criticisms of his theory. 3+2=5

(c) Define urban fringe. Distinguish between Compact settlements and Dispersed settlements.

(d) Distinguish between Fertility and Fecundity. Mention the sources of data for fertility analysis. 2+3=5

(e) Mention the zones of the Burgess Urban Land Use model.

4. Answer ***any three*** questions : 10×3=30

(a) Describe *any five* patterns of rural settlements in the world on the basis of forms and shapes.

(b) What do you understand by sex ratio ? Examine the implications of declining sex ratio in the context of India. 2+8=10

(c) Define migration. Discuss how both push and pull factors contribute to migration in the world. 2+8=10

(d) Why is the age structure considered an important indicator of population composition ? Give reasons.

(e) Define town. Discuss the morphological characteristics of rural and urban settlements. 2+8=10

(f) Discuss the principles of Central Place theory with diagrams. Mention the merits and demerits of the theory. 8+2=10

3 (Sem–4/CBCS) GGY HC 3

2023

GEOGRAPHY

(Honours Core)

Paper : GGY–HC–4036

(Remote Sensing, GIS and GPS)

Full Marks : 60

Time : Three hours

The figures in the margin indicate full marks for the questions.

1. Answer the following questions : 1×7=7

   (a) What is meant by resolution of a sensor ?

   (b) Give the full form of ISRO.

   (c) What is pixel ?

   (d) Name the radiation with longest wavelength in electromagnetic spectrum.

(e) Name *one* Indian remote sensing satellite.

(f) How many satellites are used in GPS ?

(g) Give an example of remote sensing platform.

2. Answer the following questions : 2×4=8

(a) What is georeferencing ?

(b) What is photogrammetry ?

(c) Give a reasonable definition of GIS.

(d) What is Landsat ? Give *one* example.

3. Answer ***any three*** questions from the following : 5×3=15

(a) Explain the principle of aerial remote sensing.

(b) What is buffer ? Why is buffer important for data interpretation in GIS ?

(c) Analyse the technique of data layer extraction.

(d) Distinguish between supervised and unsupervised data classification techniques.

(e) Explain the structure and characteristics of vector data.

4. Answer ***any three*** questions from the following : 10×3=30

(a) Discuss the development trend of satellite remote sensing in India.

(b) Explain with examples the procedure and technique used in overlay analysis.

(c) Present the history of development of GIS with examples.

(d) Describe the characteristics of spatial and non-spatial data types and state how these are dealt with in Database Management System. 6+4=10

(e) State how land resources are analysed using remote sensing.

(f) Explain the procedure and technique of GPS survey with examples.
