Name...................................

Reg. No.................................

FIFTH SEMESTER U.G. (CUCBCSS–UG) DEGREE [SPECIAL] EXAMINATION NOVEMBER 2020

Geography

GRY 5B 09—FUNDAMENTALS OF GEOGRAPHIC INFORMATION SYSTEM

(2017 Admissions)

Time : Three Hours   Maximum : 80 Marks

Section A

Answer all questions.
Each question carries 1 mark.

1. ———— is an Indian web based utility which allows users to explore a set of map based content prepared by ISRO.

2. The electricity connection, its distribution system and management in GIS can be best modelled utilizing ———— Topology.

3. The error which generate due to the difference between locations that are known and locations that have been interpolated or digitized during georeferencing is called as ————.

4. DBMS does not support the use of a 'data model' (True/False).

5. Surface interpolation is the procedure of estimating the value of properties at :

    (a) Observational location.   (b) Un-sample sites.

    (c) Sample sites.   (d) None of the above.

6. ———— is a visionary geographer generally recognized as 'Father of GIS.'

7. Which of the following parameters using GIS are correlated to represent an earth's physical location ?

    (a) Location.   (b) Spatial-temporal.

    (c) Extent references.   (d) All the above.

8. Rainfall distribution is an example of discrete data in GIS (True/False).

9. How many minimum satellites are operational in the constellation of GPS ?

    (a) 24.   (b) 25.

    (c) 26.   (d) 27.

10. GIS differs from surveying and mapping by introducing (choose the best response).

    (a) Attribute descriptions.   (b) Spatial analysis.

    (c) Location determination.   (d) Temporal information.

(10 × 1 = 10 marks)

Turn over

Section B

11. Define proprietary software.

12. What is shapefile ?

13. Explain about metadata.

14. Define physical data models.

15. What is buffer analysis ?

16. Explain the process of reclassification.

17. What is sliver error ?

(5 × 3 = 15 marks)

Section C

18. Differentiate between spatial and non spatial data.

19. Explain how scale and resolution aspects affect the raster data models.

20. Write a brief note on field surveying.

21. Discuss about the significance of database management system in GIS work.

22. What is geographic analysis ? Explain about its advantages and disadvantages.

23. Explain the components of GIS.

24. Discuss about the need of spatial thinking in Geography.

25. Briefly highlight the significant scope of GIS in future.

26. Write a note on process of converting raster to vector data.

27. Explain about IDW method of surface interpolation.

28. With example discuss about GIS web resources and its significance in GIS work.

29. Why georeferrencing process is considered as the most important procedure in any GIS research work ?

(7 × 5 = 35 marks)

Section D

30. Write in detail about the principle functions in GIS.

31. List out what are the major 10 topological errors that occurs while doing any work in GIS platform.

32. Discuss about the history of GIS.

33. Write an essay on application of GIS in health.

(2 × 10 = 20 marks)

D 92432

(Pages : 2)

Name...

Reg. No...

FIFTH SEMESTER U.G. (CUCBCSS–UG) DEGREE [SPECIAL] EXAMINATION NOVEMBER 2020

Geography

GRY 5B 08—FUNDAMENTALS OF REMOTE SENSING

(2017 Admissions)

Time : Three Hours

Maximum : 80 Marks

Section A

Answer all questions.
Each question carries 1 mark.

1. Who coined the term 'Remote Sensing' ?

2. Quote any two examples for atmospheric window.

3. Which band among them more suits for studies relating atmospheric character ?

   (a) Microwave.

   (b) Thermal.

   (c) Radiowave.

   (d) Visible.

4. The ability of a sensor to define different bands is called ——————————.

5. 'Aeroplane is not a platform' (True/False)

6. What was the purpose of EOS-01 satellite which launched on November 2020 ?

7. What is the full form of DIP ?

8. IIRS is located at —————.

9. Write any type of application method of Remote sensing in Agriculture.

10. Elaborate KSREC.

(10 × 1 = 10 marks)

Section B

Answer at least **five** *questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 15.

11. FCC.

12. NRSC.

13. Soil moisture analysis using remote sensing.

Turn over

14. Transmission of EMR.

15. Radiometric resolution.

16. EDUSAT.

17. Pattern & Texture in aerial photos.

(5 × 3 = 15 marks)

Section C

Answer at least seven questions.
Each question carries 5 marks.
All questions can be attended.
Overall Ceiling 35.

18. Distinguish Active and Passive remote sensing.

19. What are the characteristics of Visible spectrum ?

20. What do you mean by resolution? What are its types ?

21. Give a note on IRS series.

22. What is Image Rectification ?

23. What are the applications of remote sensing in Forest and Wildlife management ?

24. Trace the history of remote sensing before satellite technology.

25. Write note on any two laws of Radiation.

26. Write about sensors in Stereo Data Management.

27. With the help of a diagram distinguish Principal point and Nadir point.

28. Remote Sensing and Crime management.

29. Draw a flowchart to represent components in remote sensing.

(7 × 5 = 35 marks)

Section D

Answer any two questions.
Each question carries 10 marks.

30. What is Spectral Reflectance ? Explain it in detail with interaction of EMR with different earth surface features.

31. Explain the types and elements of Aerial Photography.

32. How satellite technology can best serve as a good platform in Health sector ? Substantiate your answer with COVID 19 scene.

33. Write about the History of Indian Remote Sensing program.

(2 × 10 = 20 marks)

D 92431

(Pages : 2)

Name..

Reg. No..................................

FIFTH SEMESTER U.G. (CUCBCSS–UG) DEGREE [SPECIAL] EXAMINATION NOVEMBER 2020

Geography

GRY 5B 07—CARTOGRAPHY

(2017 Admissions)

Time : Three Hours

Maximum : 80 Marks

Section A

Answer all questions.
Each question carries 1 mark.

1. What are the most important tools of a geographer ?

2. ——————— prepared by Abraham Ortelius is considered to be the first true modern atlas.

3. The science of accurately measuring and understanding the earth's geometric shape, orientation in space and gravity field is known as ———————.

4. What is the name given to imaginary line that connects places of equal atmospheric pressure ?

5. The collection of points on the earth with known heights either above or below sea level is known as ——————— datum.

6. Which is the national surveying and mapping organization of India ?

7. The surveying in which account is taken of and corrections made for the curvature of the earth's surface is called ———————

8. Expand NATMO.

9. What are the maps exclusively created for blinds known as ?

10. Define a map projection.

(10 × 1 = 10 marks)

Section B

Answer at least **five** *questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 15.

11. NSDI.

12. Representative Fraction.

13. GPS.

Turn over

14. Geoid

15. Thematic map.

16. Cartogram.

17 Aerial photography.

<div align="right">(5 × 3 = 15 marks)</div>

Section C

Answer any **seven** *questions.*
Each question carries 5 marks.
All questions can be attended.
Overall Ceiling 35.

18. Discuss the nature of cartography.

19. What is datum and explain its types ?

20. Write a short note on topographical maps.

21. Comment on the role of remote sensing in surveying.

22. Explain the need for special purpose maps.

23. Explain a co-ordinate system and two major types

24. Explain the major principles of map design.

25. Examine the utility of thematic maps.

26 What are the factors to be considered in choosing a map projection ?

27. Write a short note on Azimuthal projection.

28. Explain the steps to laying out a map.

29. What is a map and explain the major types of maps ?

<div align="right">(7 × 5 = 35 marks)</div>

Section D

Answer any **two** *questions.*
Each question carries 10 *marks.*

30. Examine in detail the historic development of cartography.

31. Explain map abstraction along with the steps involved in it.

32. Comment on the use of mapping in the analysis of socio-economic factors and data.

33. Examine the role of cartography and geodesy in spatial data infrastructure.

<div align="right">(2 × 10 = 20 marks)</div>

D 92430

Name...

Reg. No...

FIFTH SEMESTER U.G. (CUCBCSS—UG) DEGREE [SPECIAL] EXAMINATION, NOVEMBER 2020

Geography

GRY 5B 06—METHODOLOGY OF GEOGRAPHICAL STUDIES

(2017 Admissions)

Time : Three Hours

Maximum : 80 Marks

Section A

Answer all questions.
Each question carries 1 mark.

One word answer :

1. ——————— convinced that small regions (pays) are the ideal units to study and to train geographers in geographical studies.

2. ——————— help in estimations, forecasts, simulations, interpolation and generation of data.

3. — ——— is the only suitable method for gathering information from illiterate or less educated respondents.

4. – —- – – sampling does not ensure a selection chance to each population unit.

5. The ——————— hypothesis is always a statement of no change or no difference or no relationship.

6. The idea of the normal cycle of erosion was put forward by Albert Penck. (True/False) :

7. Mathematical models are considered to be more reliable but difficult to construct. (True/False) :

8. The mail survey is another method of collecting primary data. (True/False) :

9. The sample size and sampling error are positively correlated. (True/False) :

10. Popular report is designed for an audience of executives/administrators and other non-technical users. (True/False) :

(10 × 1 = 10 marks)

Section B

*Answer at least **five** questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 15.

11. Spatial tradition in Geography.

12. Systematic Geography.

Turn over

13. Paradigms in Geography.

14. Field work.

15. Observation method.

16. Sampling error.

17. Tabulation.

(5 × 3 = 15 marks)

Section C

Answer at least **seven** *questions.*
Each question carries 5 marks.
All questions can be attended.
Overall Ceiling 35.

18. Write short notes on Geography as a science.

19. What are the main features of the Regional approach in Geography ?

20. Distinguish between earth science tradition and man-land tradition.

21. What are the characteristics of a good hypothesis ?

22. What are the main characteristics of science ?

23. What are the advantages and disadvantages of using secondary data ?

24. What are the precautions to be taken for the selection of appropriate methods for data collection ?

25. What are the advantages and limitations of sampling ?

26. Differentiate between accidental and judgement sampling.

27. What are the four basic kinds of frame problems in sampling ?

28. Write short notes on Bibliography.

29. What are the advantages of diagrams in representing statistical data ?

(7 × 5 = 35 marks)

Section D

Answer any **two** *questions.*
Each question carries 10 marks.

30. Describe the need for modelling in Geography and what are its features and write briefly about the types of models ?

31. Evaluate the observation and interview method of collecting primary data ? What are the advantages and disadvantages of this method ?

32. Discuss the types of Probability sampling, their advantages and disadvantages.

33. Describe the layout of research report.

(2 × 10 = 20 marks)

D 92429

(Pages : 2)

Name...................................

Reg. No...............................

FIFTH SEMESTER U.G. DEGREE (SPECIAL) EXAMINATION NOVEMBER 2020

(CUCBCSS—UG)

Geography

GRY 5B 05—HUMAN GEOGRAPHY

(2017 Admissions)

Time : Three Hours   Maximum : 80 Marks

Section A (One Word Answer)

Answer all questions.
Each question carries 1 mark.

1. ——————— is known as the founder of Human Geography.

2. ——————— is an ethnic religion of Japan.

3. — ——————— are mainly confined to the barren in hospitable environment of the desert of Kalahari.

4. The demographic transition theory was put forward by ——————— and Frank W Notestein.

5. The heartland theory was put forward by ———————.

6. The monumental work of Humboldt is Erde Kunde. (True/False).

7. The Mongoloid race is mainly found in the Central, eastern and south eastern parts of Asia. (True/False).

8. The Masai occupy the equatorial plateau of Africa. (True/False).

9. India accounts for about 2.4 per cent of the total land surface of the world. (True/False).

10. The lowest sex ratio was in Mahe in 2001. (True/False).

(10 × 1 = 10 marks)

Section B

*Answer at least **five** questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 15.

11. Social Darwinism.   12. Neo-determinism.

13. Judaism.   14. Transhumance.

Turn over

15. Bakarwals.

16. Optimum population.

17. Heartland.

(5 × 3 = 15 marks)

Section C

Answer at least **seven** *questions.*
Each question carries 5 *marks.*
All questions can be attended.
Overall Ceiling 35.

18. Write short notes on Possibilism.

19. What are the main features of Welfare human geography ?

20. Explain the nature and scope of Human Geography.

21. Describe the major religions of the world and their distribution.

22. Write a short note on the Arab-Middle East and North African cultural region of the world.

23. Write a short note on the human life of Eskimos.

24. Explain the way of life of the Bushmen of the Kalahari desert

25. What are the factors influencing the distribution of the world population ?

26. Explain the Malthusian theory of population.

27. Write a note on the causes of migration.

28. Describe the rimland theory.

29. Write a short note on the India-Sri Lanka boundary.

(7 × 5 = 35 marks)

Section D

Answer any **two** *questions.*
Each question carries 10 *marks.*

30. Discuss the major languages of the world and their distribution.

31. Describe the human life of Masais of East Africa ?

32. Explain the demographic transition model ?

33. Evaluate the land frontiers of India ?

(2 × 10 = 20 marks)

FIFTH SEMESTER B.A./B.Sc. DEGREE EXAMINATION NOVEMBER 2020

(CUCBCSS—UG)

Geography

GRY 5D 01—PHYSICAL GEOGRAPHY

(2017 Admissions)

Time : Two Hours   Maximum : 40 Marks

Part A (One Word Answer)

All questions to be attended.
Each question carries 1 mark.

1. Which of the following are not associated with Earth movements ?

    (a) Volcanism.   (b) Block tilting.

    (c) Faulting.   (d) Folding.

2. What does the term Sial refers to :

    (a) Earth's surface layer.   (b) The core part of the earth.

    (c) Ocean bottom rocks.   (d) Rock which is rich in calcium.

3. The most favourable areas for airmass development are :

    (a) The cyclonic areas.   (b) Anticyclonic areas.

    (c) Irregular terrain.   (d) Areas of air convergence.

4. Hot and humid areas the broadleaf trees most common. (True/False).

5. Pacific Ocean have the best developed a system of mid oceanic ridge. (True/False).

6. Kuroshio current flows North along Japan coast. (True/False).

                                                          (6 × 1 = 6 marks)

Part B

All questions can be attended and overall ceiling.
Each question carries 2 marks.

7. Asthenosphere.

8. Diastrophic force.

Turn over

9. Tides.

10. Ecosystem.

11. Occluded front.

(5 × 2 = 10 marks)

Part C

All questions can be attended and overall ceiling.
Each question carries 4 marks.

12. Distinguish between physical geography and human geography.

13. Write a note on physical properties of ocean water.

14. Give a brief account on environmental degradation.

15. What are the seismic waves of earthquakes explain.

16. Explain atmospheric composition.

17. Give a note on types of clouds.

(4 × 4 = 16 marks)

Part D

All questions can be attended and overall ceiling.
Each question carries 8 marks.

18. Describe pressure belts and wind system.

19. Explain relief features of ocean floor.

20. Give a detailed account on the types of weathering.

(1 × 8 = 8 marks)

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Geography

GRY 5B 07—CARTOGRAPHY

(2017 Admissions)

Time : Three Hours   Maximum : 80 Marks

Part A

Answer all questions.
Each question carries 1 mark.

1. The art and science of map making.

2. The charts constructed by the Italians that gave navigational aid to sailors.

3. The projections derived by projecting the image of network of meridians and parallels on a globe.

4. ———————————— is a set of reference points on the earth's surface against which position measurements are made

5. The maps that are designed to highlight information on specific topics.

6. The maps which show the relief and terrain in detail at the cost of other details.

7. The technique of selecting a set of representative units from a universe.

8. An instrument used to measure the length of a curved line.

9. The imaginary line connecting the places having same pressure.

10. The finely drawn disconnected lines drawn in maps to represent terrain.

(10 × 1 = 10 marks)

Part B

Answer all questions.
Each question carries 2 marks.

11. Cardinal directions.

12. Survey of India

13. Gnomonic projections.

Turn over

14. Two models of earth.

15. Conventional signs.

16. Map layout.

17. Dot maps.

(7 × 2 = 14 marks)

Part C

Answer any **nine** *questions.*
Each question carries 4 marks.

18. Discuss the nature of Cartography.

19. Describe the methods of representation of scales in map.

20. Explain Geodesy.

21. Give a detailed account of numbering of Survey of India Topographical maps.

22. Write short note on different plat forms in Remote Sensing.

23. Examine the significance of Map Design.

24. Differentiate Simple and Complex thematic Maps.

25. Describe the salient features of cartography in the recent period.

26. Classify Map projection.

27. Discuss the advantages of aerial photography.

28. Explain the basic elements of maps.

29. Write a short note on different methods of representation of weather data.

(9 × 4 = 36 marks)

Part D

Answer any **two** *questions.*
Each question carries 10 marks.

30. Explain the different methods of Surveying.

31. Examine the factors that have to be considered in lettering on maps.

32. Give an account of Special purpose maps.

33. Illustrate the important conventional Signs and symbols used by the Survey of India.

(2 × 10 = 20 marks)

D 10195 (Pages : 3)

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Geography

GRY 5B 08—FUNDAMENTALS OF REMOTE SENSING

(2017 Admissions)

Time : Three Hours

Maximum : 80 Marks

Section A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. Scattering produces ——————— in imageries.

2. ——————— sensors use natural light as energy source.

3. ALISS stands for ———————.

4. Along track scanning is also known as ———————.

5. Geosynchronous satellites are placed at an altitude of ———————.

6. An ——————— is an aerial photograph that is free of distortion and which is characterized by a uniform scale over its entire surface.

7. The measure of the repeat cycle or frequency with which a sensor revisits the same part of the Earth's surface is termed——————— resolution.

8. The wavelength range of visible light is 0.4 to 0.7 μm. State whether the statement is True *or* False.

9. Microwaves enable remote sensing data collection in all weather conditions. State whether the statement is True *or* False.

10. NAOMI is a sensor used in Landsat 7. State whether the statement is True *or* False.

(10 × 1 = 10 marks)

Turn over

Section B

Answer all **seven** *questions.*
Each question carries 2 marks.

11. What is EMS ?

12. What do you mean by radiometric resolution ?

13. Define Thermal remote sensing.

14. What is a sun synchronous satellite ?

15. What is a stereoscopy ?

16. Write briefly on ALISS.

17. What is an active sensor ?

(7 × 2 = 14 marks)

Section C

Answer any **nine** *questions.*
Each question carries 4 marks.

18. With proper illustrations explain the spectral reflectance of vegetation and soil.

19. Provide a brief account of microwave remote sensing.

20. Explain the energy interactions in the atmosphere.

21. Differentiate between spectral and radiometric resolutions bringing out the significance of each.

22. Write briefly on the applications of remote sensing in precision map used in agriculture.

23. Write briefly on the sensors used in Resourcesat 3.

24. Discuss the significance of atmospheric windows in remote sensing with proper illustrations.

25. What is remote sensing ? List the types of remote sensing based on wavelength regions.

26. Write briefly on the characteristic features of Bhuvan.

27. Differentiate between along track and across track scanning.

28. Write briefly on Landsat 7.

29. Write briefly on classification of aerial photographs.

(9 × 4 = 36 marks)

Section D

Answer any **two** *questions.*
Each question carries 10 *marks.*

30. With proper illustrations explain the electromagnetic spectrum.

31. Explain the various components of a remote sensing system and differentiate between ideal and real remote sensing systems.

32. Bring out the applications of remote sensing in disaster management.

33. Provide a comprehensive overview of sensors used in SPOT 1, 2, 3 and 4.

(2 × 10 = 20 marks)

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Geography

GRY 5B 09—FUNDAMENTALS OF GEOGRAPHIC INFORMATION SYSTEM

(2017 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. European Union's Satellite Navigation System :

    (a) GPS. (b) GLONASS.

    (c) GALILEO. (d) IRNSS.

2. SQML Stands for ————.

3. The endpoint of a dangling arc not connected to another arc.

4. A logical set of thematic data described and stored in a map library.

5. A GIS operation for placing points on a map based on street addresses.

6. KML stands for ————.

7. A co-ordinate-based data model that represents geographic features as points, lines, and polygons.

8. Aerial photographs that have been rectified to produce an accurate image of the Earth.

9. A named collection of logically related data items arranged in a prescribed manner.

10. A mathematical model designed to fit part or all of the geoid.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*
Each question carries 2 *marks.*

11. What is Datum ?

12. List out popular proprietary and Open-Source GIS Softwares.

13. Define Resolution in GIS.

14. What is Polygon Topology ?

Turn over

15. Define Database Management System in GIS.

16. What is Metadata ?

17. List out popular Satellite Navigation Systems in the world.

(7 × 2 = 14 marks)

Part C

Answer any **nine** *questions.*
Each question carries 4 marks.

18. Explain Spatial Analysis.

19. Explain Data Modelling.

20. Discuss about database in GIS.

21. What is Resolution and mention its types ?

22. What is DBMS ?

23. Explain about Relational Database Management System GIS.

24. Discuss about Raster Surface analysis in GIS.

25. Discuss about Georeferencing in GIS.

26. Give an account on Buffer analysis in GIS.

27. What is Vectorization ?

28. Briefly discuss the history of GIS.

29. Explain application of GIS in Health.

(9 × 4 = 36 marks)

Part D

Answer any **two** *questions.*
Each question carries 10 marks.

30. Give an account on components in GIS.

31. Briefly explain Spatial Interpolation in GIS.

32. Explain in detail about application of GIS in Water Resources.

33. Differentiate between Raster and Vector Data models in GIS.

(2 × 10 = 20 marks)

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Geography

GRY 5B 09—FUNDAMENTALS OF GEOGRAPHIC INFORMATION SYSTEM

(2014 Admissions)

Time : Three Hours   Maximum : 80 Marks

Part A

Answer all questions.
Each question carries 1 mark.

1. Who is considered as the father of GIS ?

2. India's navigation satellite system is —————.

3. Terrain elevation data provided in digital form is —————.

4. The physical dimension that represents a pixel of a digital image is ————— resolution.

5. KML stands for ——————.

6. A geometrically corrected aerial photograph is called —————.

7. A mathematical model designed to fit part or all the geoid is —————.

8. A co-ordinate based data model representing spatial entities :

    (a) Raster.   (b) GPS.

    (c) Qualitative data.   (d) Vector.

9. The name of the GIS operation placing co-ordinates on a map is georeferencing. (True/False).

10. Bhuvan is the web based utility of USGS. (True/ False).

(10 × 1 = 10 marks)

Part B

Answer all questions.
Each question carries 2 marks.

11. What is spatial data ?

12. Topology.

13. Metadata.

14. Resolution.

15. Write a short note on Vectorization in GIS.

Turn over

16. Explain briefly on TIN.

17. Application of GIS in disaster management.

<div align="right">(7 × 2 = 14 marks)</div>

Part C

Answer any **nine** *questions.*
Each question carries 4 marks.

18. Write a short note on GPS.

19. Differentiate open source and proprietary software in GIS.

20. Write briefly on network analysis in GIS.

21. Briefly explain data entry techniques in GIS.

22. What is data base management system ?

23. Give an account on history of GIS.

24. List out the topological errors in GIS.

25. Explain the significance of overlay analysis.

26. Explain the concept of big data.

27. Briefly discuss spatial query in GIS.

28. What is digital image processing ?

29. Explain the role of GIS in disease management.

<div align="right">(9 × 4 = 36 marks)</div>

Part D

Answer any **two** *questions.*
Each question carries 10 marks.

30. What is raster and vector data ? Explain the advantages and disadvantages of them with suitable illustrations.

31. What is GIS ? Give a brief account on the components of GIS.

32. Critically evaluate the applications of GIS in agriculture.

33. Discuss the types of resolutions in GIS.

<div align="right">(2 × 10 = 20 marks)</div>

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Geography

GRY 5B 08—FUNDAMENTALS OF REMOTE SENSING

Time : Three Hours   Maximum : 80 Marks

Section A

Answer all questions.
Each question carries 1 mark.

1. The father of Indian Remote Sensing is ——————.

2. Wave length range of visible spectrum is ——————.

3. The revisit frequency of a sensor at the same part of the earth surface is termed as ——————.

4. Give the frequency range or wavelength range of Infrared radiations

5. SAR stands for ——————.

6. What type of remote sensing used its own source of energy ?

7. Geometrically corrected photographs are called ——————.

8. NAOMI is a sensor used in Landsat 7 :

    (a) True ; (b) False.

9. Resourcesat satellites are placed in Sun-synchronous orbit :

    (a) True ; (b) False.

10. Fiducial marks are the registration marks placed in the centre of an air photo :

    (a) True ; (b) False.

(10 × 1 = 10 marks)

Section B

Answer all seven questions.
Each question carries 2 marks.

11. What is electro-magnetic energy ?

12. What do you mean by spatial resolution ?

13. What are sun-synchronous satellites ?

Turn over

14. Stereoscopy.

15. Passive remote sensing.

16. MODIS.

17. Thermal remote sensing.

(7 × 2 = 14 marks)

Section C

Answer any **nine** *questions.*
Each question carries 4 marks.

18. Explain the spectral reflectance in remote sensing.

19. Discuss the energy interaction in the atmosphere.

20. Differentiate between spectral and radiometric resolutions.

21. What is a remote sensing platform ? Explain its types.

22. Write briefly on the ideal conditions of capturing aerial photographs.

23. Write briefly on the sensors used in Resourcesat 3.

24. Discuss the significance of atmospheric windows in remote sensing.

25. Explain the application of remote sensing in disaster management.

26. Give a brief account on Electro Magnetic Spectrum.

27. List out the advantages of aerial photographs.

28. Landsat 7.

29. Whiskbroom and push broom scanning.

(9 × 4 = 36 marks)

Section D

Answer any **two** *questions.*
Each question carries 10 *marks.*

30. What is Remote Sensing ? Explain its components with suitable illustrations.

31. Give an account on SPOT satellite system.

32. What are Aerial Photographs ? Explain the classification of aerial photographs.

33. Write briefly on the application of Remote Sensing in agriculture.

(2 × 10 = 20 marks)

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Geography

GRY 5B 07—CARTOGRAPHY

(2014 Admissions)

Time : Three Hours   Maximum : 80 Marks

Part A

Answer **all** *questions.*

Each question carries 1 *mark.*

1. The headquarters of National Remote Sensing Centre is ————.

2. The Survey of India established in the year ————.

3. The instrument used to measure area.

4. The line drawn on the map for showing places of equal elevation.

5. The charts constructed by the Italians for the navigational aid to sailors.

6. The map that are prepared to highlight information on specific topic is ————.

7. The first map of the world was prepared by ————.

8. A set of reference points on the earth's surface against which position measurements are made.

9. A quarter inch sheet is also called as ————.

10. The method of collecting data without any physical contact is ————.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*

Each question carries 2 *marks.*

11. T-O Maps.

12. Geodesy.

Turn over

13. Conventional Signs in topographical maps.

14. Map Projection.

15. Scale of the maps and its representation.

16. Ortho photo.

17. Dot Maps.

(7 × 2 = 14 marks)

Part C

Answer any **nine** *questions.*
Each question carries 4 marks.

18. Write a short note on computer aided cartography.

19. Examine the elements of maps.

20. Explain the significance of map design.

21. Give a brief account on the advantages of aerial photographs.

22. What are the different methods of representing weather and climatic data ?

23. Prepare a short note on GPS.

24. Explain the methods of collection of spatial data.

25. Describe the nature of cartography as a science.

26. Peutinger Table.

27. Write a short note on different remote sensing platforms.

28. What are thematic maps ? Explain its types.

29. Map layout.

(9 × 4 = 36 marks)

Part D

Answer any **two** *questions.*

Each question carries 10 *marks.*

30. Give a brief account on development of cartography.

31. Write a detailed account on special purpose maps.

32. Describe the different methods of relief representation.

33. Write a short essay on numbering of Indian toposheets.

(2 × 10 = 20 marks)

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Geography

GRY 5B 06—METHODOLOGY OF GEOGRAPHICAL STUDIES

(2014 Admissions)

Time : Three Hours   Maximum : 80 Marks

I. Answer all *ten* of the following given in A and B :

(A) Choose the correct answer from the following :

1 Who laid down the foundation for Regional Geography ?

    (a) Vidal de la blache.   (b) Carl Ritter.

    (c) Friedrich Ratzel.   (d) Herbertson

2 Dissatisfaction with the models and theories developed by the positivists, using the statistical techniques which were based on the economic reality of man led to the development of this approach in geography :

    (a) Radical approach.   (b) Functionalism.

    (c) Behaviouralism.   (d) Existentialism.

3 The source of secondary data is :

    (a) Socio-economic survey.   (b) Interview.

    (c) Census reports.   (d) Observation.

4 In this sampling it does not give a representative sample of the population :

    (a) Stratified Random sampling.

    (b) Non-probability sampling.

    (c) Cluster sampling.

    (d) Probability sampling.

Turn over

5 A proposition or a set of proposition set forth as an explanation for the occurrence of some specified group of phenomena :

    (a) Hypothesis.   (b) Tabulation.

    (c) Reference.   (d) Bibliography.

(B)   Mark the following statements as True *or* False :

6 Berhard Varenius wrote the book Geographia Generalis.

7 Hypothesis is the assumption made after any research has been completed.

8 Field work requires proper planning and administration.

9 In accidental sampling, the respondents whom the researcher meets accidently are included in the sample.

10 Tabulation is an orderly arrangement of data in columns and rows.

(10 × 1 = 10 marks)

II. Answer *all* questions in not more than 50 words :

11 Area studies tradition.

12 Data and information.

13 Fieldwork.

14 Structured Observation.

15 Sampling frame.

16 Pictograms.

17 Bibliography.

(7 × 2 = 14 marks)

III. Answer any *five* questions from the following in not more than 150 words :

18 Explain the characteristics of systematic or general geography ?

19 Write short note on traditions in Geography ?

20 What are the main features of a model ?

21 Distinguish between structured and unstructured interview ?

22 Explain the different sources of secondary data ?

23 What are the advantages and limitations of accidental sampling ?

24 What is data tabulation ? What are the generally accepted principles of tabulation ?

<div align="right">(5 × 4 = 20 marks)</div>

IV. Answer any *four* questions from the following in not more than 150 words :

25 Evaluate the regional approach in geography ?

26 Explain the development of the humanistic approach in geography ?

27 Examine the theory of growth and development of Science postulated by Kuhn or Kuhn's Paradigm ?

28 What are the characteristics of Observation method in the collection of primary data ?

29 Discuss the characteristics of simple and complex random sampling, its advantages and disadvantages ?

30 What are the advantages and limitations of sampling ?

31 Describe the layout of research report ?

<div align="right">(4 × 4 = 16 marks)</div>

V. Write essays on any *two* of the following in about 400 words :

32 Describe the general classification of Models in geography ?

33 Evaluate the different methods of collecting primary data ?

34 Discuss the types of probability sampling ?

35 Elucidate the different types of reports ?

<div align="right">(2 × 10 = 20 marks)</div>

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CUCBCSS—UG)

Geography

GRY 5B 05—HUMAN GEOGRAPHY

(2014 Admissions)

Time : Three Hours   Maximum : 80 Marks

Part A

Answer **all** *questions in* **one word.**

1. Father of modern Human Geography.

2. The founder of Scientific Determinism.

3. The racial groups who have main concentration to the south of Sahara desert in Africa.

4. The language spoken in Sri Lanka is —————.

5. The San are the people of northern ————— who traditionally have lived as hunter-gatherer.

6. Eskimos depend on whales for hides and clothing (True/False).

7. The demographic transition theory was put forward by W. S. Thompson (True/False).

8. USA is the third highest populated country in the world (True/False).

9. The dividing line between India and China is known as Radcliff line (True/False).

10. India and Sri Lanka are separated from each other by a narrow and shallow sea called Palk strait (True/False).

(10 × 1 = 10 marks)

Part B

Write short answer on **all** *questions in not more than 50 words each.*

11. Stop and go determinism.

12. Social darwinism.

13. Judaism.

14. Gujjars and Bakerwals.

15. Under population.

Turn over

16. Optimum Population.

17. Rimland.

Part C

Write a paragraph on any **nine** *questions in not more than* 150 *words each.*

18. Write short notes on Possibilism.

19. What are the main features of Welfare human geography ?

20. Elaborate the concept Pastoral Nomadism.

21. Write a note on Subsistence farming.

22. Discuss the major races of the world and their distribution.

23. Write a short note on the South-East Asian cultural region.

24. Give a short account on Hinduism.

25. Describe how Masai herders of Tanzania adapted to their environment.

26. Give an account on Malthusian Theory of Population growth.

27. Write a note on the causes of migration.

28. Write short notes on heartland theory.

29. Evaluate the geopolitics of the Indian Ocean.

(9 × 4 = 36 marks)

Part D

Write essays on any **two** *questions in not more than* 400 *words.*

30. Give an account of Scope and Content of Human Geography along with its branches.

31. Give an account of World distribution of Languages.

32. Describe the human life of Bushmen of the Kalahari desert.

33. Give an account of Demographic transition in India.

(2 × 10 = 20 marks)

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FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Geography

GRY 5D 02—GEOGRAPHY OF INDIA

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A

*Answer at least **eight** questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 24.

1. Palk Strait.

2. Kashmir Valley.

3. Pamir Knot.

4. Sunderbans.

5. El-Nino.

6. Westerly Jet Streams.

7. Biosphere Reserves.

8. Bhabar.

9. Negative growth of population.

10. Brain drain.

(8 × 3 = 24 marks)

Section B

*Answer at least **five** questions.*
Each question carries 5 marks.
All questions can be attended.
Overall Ceiling 25.

11. India is a land of great diversities and contrasts. Explain.

12. What is the strategic significance of India in the Indian Ocean ?

13. Write a short note on the Ganga river system and its tributaries.

14. Discuss the classical theory of the mechanism of monsoon in India.

15. Elaborate on the classification of Natural vegetation and its distribution in India.

16. Distinguish between National parks and wildlife sanctuaries.

Turn over

17. Explain the phases of population growth in India since 1901.

18. India is facing serious problems regarding population. Explain.

<div align="right">(5 × 5 = 25 marks)</div>

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

19. Describe the geographical divisions of the Himalayan mountains.

20. Explain the causes, effects of floods and flood-prone areas of India.

<div align="right">(1 × 11 = 11 marks)</div>

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Geography

GRY 5D 01—PHYSICAL GEOGRAPHY

(2019 Admissions)

Time : Two Hours   Maximum : 60 Marks

Section A

Answer at least **eight** *questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 24.

1. Pays.

2. Cycle of erosion.

3. Shield volcanoes.

4. Primary waves.

5. Trade winds.

6. Tornadoes.

7. Abyssal plain.

8. La-Nina.

9. Shifting cultivation.

10. Primary producers.

(8 × 3 = 24 marks)

Turn over

Section B

Answer at least **five** *questions.*
Each question carries 5 marks.
All questions can be attended.
Overall Ceiling 25.

11. Explain the nature and scope of Geography ?

12. Distinguish between physical and human geography ?

13. Write the nebular hypothesis of Immanuel Kant ?

14. Discuss the types of rainfall with the help of suitable diagrams ?

15. Elaborate on the relief of the ocean floor ?

16. Enumerate the ocean currents in the North Atlantic Ocean ?

17. Explain the different techniques that can help in controlling soil erosion ?

18. What are the causes of environmental degradation ?

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*
The question carries 11 marks.

19. Describe the structure of the earth with suitable diagrams ?

20. Explain the Hot wet equatorial climate type ?

(1 × 11 = 11 marks)

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Geography

GRY 5B 08—METHODOLOGY OF GEOGRAPHICAL STUDIES

(2019 Admissions)

Time : Two Hours   Maximum : 60 Marks

Section A

*Answer at least **eight** questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 24.

1. Define environmental approach in geography.

2. What do you mean by man and land tradition ?

3. What is theoretical knowledge ?

4. Distinguish between Fact and Concept.

5. Define case study method.

6. What is the significance of interview in data collection ?

7. What is sampling errors ?

8. What is systematic sampling ?

9. Describe generalization of data.

10. Define layout of a report.

(8 × 3 = 24 marks)

Section B

*Answer at least **five** questions.*
Each question carries 5 marks.
All questions can be attended.
Overall Ceiling 25.

11. Write a note on paradigms in geography.

12. What are the published and unpublished sources of secondary data ?

Turn over

13. What are the distinctive characteristics observed by human population under sampling ?

14. What are the types of reports in geographical analysis ?

15. What are the differences between Man land and earth science tradition in geography ?

16. What is the significance of practical knowledge in geography ?

17. What is field work ? Write its steps as well as problems faced during data collection.

18. Distinguish between judgment sampling and stratified sampling.

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

19. Explain the scientific and artistic nature of geography.

20. Describe the approaches in geographical studies.

(1 × 11 = 11 marks)

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Geography

GRY 5B 07—INTRODUCTION TO GEOINFORMATICS

(2019 Admissions)

Time : Two Hours   Maximum : 60 Marks

Section A

*Answer at least **eight** questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 24.

1. What is Spatial Resolution ?

2. How does scattering reduce the quality of satellite imageries ?

3. What is stereoscopy ?

4. Write a short note on push broom scanning.

5. Electromagnetic spectrum.

6. Run length encoding.

7. Define Attribute data.

8. What is an overshoot ?

9. What is georeferencing ?

10. Write a brief note on Bhuvan.

(8 × 3 = 24 marks)

Section B

*Answer at least **five** questions.*
Each question carries 5 marks.
All questions can be attended.
Overall Ceiling 25.

11. What is platform ? Write in detail on the various types of platforms.

12. What is quad tree data compression ? Explain.

Turn over

13. Write briefly on data sources in GIS.

14. Differentiate radiometric resolution from spectral resolution.

15. Why are atmospheric windows significant in remote sensing ?

16. Write briefly on WiFS.

17. What is an active sensor ? Provide examples.

18. Write briefly on topological errors in GIS.

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

19. List and explain the components of Geographic Information Systems.

20. Discuss the applications of remote sensing in disaster management.

(1 × 11 = 11 marks)

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Geography

GRY 5B 06—CARTOGRAPHY

(2019 Admissions)

Time : Two Hours   Maximum : 60 Marks

Section A

*Answer at least **eight** questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 24.

1. Define Cartography.

2. What are the functions of Survey of India ?

3. Define Datum.

4. What is Zenithal map projection ?

5. What are the types of maps on the basis of scale ?

6. What are conventional signs and symbols ?

7. Define Mechanical lettering.

8. List out the two basic methods of collection of statistical data.

9. What are special purpose maps ?

10. Define isopleth map.

(8 × 3 = 24 marks)

Section B

*Answer at least **five** questions.*
Each question carries 5 marks.
All questions can be attended.
Overall Ceiling 25.

11. Explain the significance of National Spatial Data Infrastructure.

12. Describe the two models of Earth.

Turn over

13. Give an account of numbering of Survey of India Topographical maps.

14. Describe the nature of Cartography.

15. Describe the drawing materials and drawing equipment used in the construction of maps.

16. Examine the principles of map design.

17. Classify block diagrams and describe.

18. Explain the various methods of representing weather data.

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

19. Explain the historic development of Cartography.

20. Give a detailed account of the different methods of Surveying.

(1 × 11 = 11 marks)

FIFTH SEMESTER U.G. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS—UG)

Geography

GRY 5B 05—HUMAN GEOGRAPHY

(2019 Admissions)

Time : Two Hours and a Half   Maximum : 80 Marks

Section A

Answer at least **eight** *questions.*
Each question carries 3 marks.
All questions can be attended.
Overall Ceiling 24.

1. Describe the significance of Human Geography.

2. Write a description on Industrial Revolution.

3. What is Determinism ?

4. Identify the lifestyle of Eskimos.

5. Define Race and provide examples.

6. Write a short note on Shintoism.

7. What do you infer from Optimum Population ?

8. Define Cultural Hearth. Give an example.

9. Define Migration. List out its types.

10. India - China standoff. Is it a geo-political issue ?

(8 × 3 = 24 marks)

Section B

Answer at least **six** *questions.*
Each question carries 6 marks.
All questions can be attended.
Overall Ceiling 36.

11. Write a note on Development of Human Geography.

12. Discuss the role of technology in Human development.

Turn over

13. Write a short note on Subsistence farming.

14. Describe the components of culture.

15. Distinguish between Possibilism and Probabilism.

16. Give a short account on Chinese religions.

17. Elucidate the economic and social life of people living in mountains of the world.

18. Discuss the problems faced by the developing countries.

19. Discuss in brief about Rimland Theory.

20. Give an account on Malthusian Theory of Population growth.

(6 × 6 = 36 marks)

Section C

Answer any **two** *questions.*
Each question carries 10 *marks.*

21. Define Human Geography. Give a detailed account of Branches in Human Geography.

22. Describe the major races of the world and their distribution.

23. Explain the factors influencing spatial distribution of population in the world.

24. Give an account of Heartland theory and find out its relevance in the modern world.

(2 × 10 = 20 marks)