#### M. A. First Semester (CBCS) Examination Geography Course - CC 1.1

Full Marks-40

Time—2 Hours

The figures in the right hand side margin indicate marks.

Answer any four questions selecting one from each unit.

#### Unit-I (Concepts in Earth Science)

- 1. Distinguish between spatial scale and temporal scale. Discuss the major landforms developed along the convergent plate boundary. 4+6=10
- 2. What do you mean by 'constant slope'? Explain the slope evolution model after Davis. 3+7=10

#### Unit-II (Rivers and River Basin)

3. Classify stream energy. Illustrate different parameters of channel hydraulic geometry.

4+6=10

4. Distinguish between dryfan and wetfan. Discuss the characteristic features of different types of river terraces. 4+6=10

## Unit-III (Geomorphic Processes and Landforms)

- 5. Explain peri-glacial landforms with suitable sketches. What do you mean by a wave cut platform? 8+2=10
- 6. Distinguish between coastal sand dunes and desert sand dunes. Describe coastal deposional landforms with suitable sketches. 4+6=10

## Unit-IV (Applied Geomorphology)

- 7. State the differences between a dam and a barrage. Illustrate the role of dam construction on the longitudinal profile of a river. 4+6=10
- 8. Discuss some important management strategies for earthquake in the Indian Himalayan region. State the significance of geomorphological knowledges in hazard management with examples. 6+4=10

#### M. A. First Semester (CBCS) Examination Geography Course - CC 1.2

Full Marks—40

Time—2 Hours

The figures in the right hand side margin indicate marks.

Answer any four questions selecting one from each unit.

#### Unit-I (Pure Hydrology)

- 1. Discuss the role of the global hydrological cycle in sustaining life on earth. Elaborate on the different flow components of the hydrological cycles. 4+6=10
- 2. Explain the significance of studying the drainage basin as a hydrological unit. How can the catchment processes be measured? 6+4=10

#### Unit-II (Applied Hydrology)

3. What are the benefits and limitations for construction of water conservation infrastructure in tropical cities? Discuss the types of rainwater harvesting techniques used in West Bengal.

7+3=10

4. Discuss the key aspects of integrated River Basin Management (IRBM). Discuss the significance of stakeholders in IRBM. 7+3=10

#### Unit-III (Morphology of Ocean Basins)

- 5. Describe, with suitable diagrams the evolution of mid-oceanic ridges and Island arcs. What is a micro atoll? 8+2=10
- 6. Elaborate on the role of ocean currents and ENSO on the precipitation regimes across the globe.
  What is an ocean canyon?

  8+2=10

#### Unit-IV (Ocean Water and its Uses)

- 7. Discuss the generation and propagation of waves with a relevant theory. What are breaking waves? 7+3=10
- 8. Classify the CRZ zones. Discuss the economic benefits of ocean resources. 4+6=10

What are the bonding and limitations for

#### M. A. First Semester (CBCS) Examination Geography Course - CC 1.3

Full Marks-40

Time—2 Hours

The figures in the right hand side margin indicate marks.

Answer any four questions selecting one from each unit.

#### Unit-I (Evolution of Geographical Thought)

- 1. Discuss the contribution of Carl Ritter in Geography. Differentiate between Carl Ritter and Alexander Von Humboldt with regard to their approach towards geography. 7+3=10
- 2. Write a note on the contribution of Arab scholars during medieval period. Highlight the events leading up to the Quantitative Revolution in geography. 7+3=10

#### Unit-II (Dualism in Geography)

3. Explain the features of determinism in geography. How determinism has influenced the philosophy of Darwin? 7+3=10

4. Outline the key arguments of the Hartshorne-Schaefer debate. Critically evaluate whether the debate aimed to support an idiographic or nomothetic approach to geography. 7+3=10

#### Unit-III (Rise of Critical Geography)

- 5. Discuss some of the criticisms labelled against positivist approach in geography. Distinguish between the radical and humanist approaches in geography.

  6+4=10
- 6. Write about Lefebverian's triad-conceived, perceived and lived space. What is 'spatial fix' according to David Harvey? 6+4=10

## Unit-IV (Recent Trends in Geography)

- 7. Distinguish between shallow ecology and deep ecology. Does this hint at the revival of determinism. 7+3=10
- 8. Discuss the basic tenets of postmodernism in geography with examples. How positivism is reviving through GIS and remote sensing?

6+4=10

# M. A. First Semester (CBCS) Examination Geography Course - CC 1.4 (Practical)

Full Marks-40

Time—3 Hours

The figures in the right hand side margin indicate marks.

### **Mapping Perceptions and Field Techniques**

Answer all questions:

- 1. Delineate a small drainage basin from the given topographical map and prepare a relative relief map of the basin. Interpret the map. Distinguish between spot height and bench mark symbols in a topographical sheet.

  3+5+1+1=10
- 2. Explain the loxodrome. Draw the graticules of Mercator's Projection for the world on 1:250,000,000 scale at an interval of 15°.

[Table 1 for calculating the distance for latitude given below].

Table 1:

Latitude	Distance	
15°	$0.265 \times 1 = 0.265$ "	
30°	$0.549 \times 1 = 0.549$ "	
450	$0.881 \times 1 = 0.881$ "	
600	$1.317 \times 1 = 1.317$ "	
750	$2.027 \times 1 = 2.027$ "	

3. What is meant by principal point and conjugate point? Extract three physical and three cultural features from the given satellite image to prepare a thematic map overlay and interpret it.

2+6+2=10

4. Laboratory note-book and viva-voice. 10

## M. A. First Semester (CBCS) Examination Geography Course - CC 1.5

(Practical)
(Quantitative Techniques)

Full Marks—40

Time—3 Hours

The figures in the right hand side margin indicate marks.

#### Unit-I

1. Differentiate between random and purposive sampling. 2+8=10

A random sample of 300 people revealed the following details regarding distribution of Educational Attainment Levels by Marital Status (Table: 1). Using Chi-square test determine whether there is any relationship between Marital Status and the level of educational attainment and whether the relationship is significant at 1% level of significance.

Table-1: Educational Attainment Level & Marital status of 300 population

Marital Status	Graduate	Secondary	Elementary	Total
Never married	36	36	18	90
Married	102	36	12	150
Widowed/Divorced	32	18	10	60
Total	170	90	40	300

[P.T.O.]

#### Unit-II

2. On the basis of the data provided in Table 2, draw a time series graph to show the number of undernourished people (in million) in India. Compute and draw the trend by four years moving average

Table-2: Number of People undernourished

Year	Number of people Undernourished (Million)
2010-11	193.1
2011-12	189.0
2012-13	190.8
2013-14	192.0
2014-15	190.5
2015-16	184.1
2016-17	176.3
2017-18	180.2
2018-19	200.0
2019-20	224.3

#### Unit-III

3. The table below shows percentage of literacy and percentage of child receiving full immunization in different districts of West Bengal. Calculate residual values for each district of West Bengal and interpret it.

8+2=10

**Table-3:** Dist.wise Percentage of Literacy & Percentage of child immunization.

SI. No.		Percentage of Literacy	Percentage of Child receive full immunization
1.	Darjeeling	79-92	86.50
2.	Jalpaiguri	73.79	81-80
3.	Cooch Bihar	75.49	86.50
4.	Uttar Dinajpur	60-13	76.80
5.	Dakshin Dinajpur	73.86	86-60
6.	Malda	62.71	80.40
7.	Murshidabad	67.53	67-60
8.	Birbhum	70-90	67.00
9.	Barddhaman	77-15	70.70
10.	Nadia	75.58	91.50
11.	North 24 Parg.	84-95	56.10
12.	Hooghly	82.55	83.50
13.	Bankura	70-95	88-90
14.	Purulia	65.38	83.60
15.	Paschim Mednipur	79-04	76.60
16.	Howrah	83-85	82.40
17.	Kolkata	80-86	74.40
18. 5	South 24 Parganas	78-57	70.40
19.	Purba Medinipur	87-66	79-20

Laboratory note book and viva-voice.