



**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Honours 1st Semester Examination, 2020, held in 2021

**GEOACOR01T-GEOGRAPHY (CC1)**  
**GEOTECTONICS AND GEOMORPHOLOGY**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

**CATEGORY-A**

**Answer any one question from the following within 600 words each** 10×1 = 10

1. What is meant by 'Plate Tectonics'? Explain the characteristics and related landforms of convergent plate margins with suitable diagrams. 2+8 = 10
2. Discuss the factors that affect weathering process. Explain different processes of mechanical weathering. 3+7=10

**CATEGORY-B**

**Answer any four questions from the following within 150 words each** 5×4 = 20

3. Briefly write an account on the temporal span, classification and significance of quaternary period.
4. Differentiate the nature of primary and secondary waves.
5. Identify the different forms of interruption in a cycle of erosion.
6. Classify 'Moraines'.
7. How inversion of relief is formed?
8. Distinguish between Yardang and Zeugen.
9. Describe the formation of 'hot spot'.

**CATEGORY-C**

**Answer any five questions from the following within 50 words each** 2×5 = 10

10. Define global isostatic adjustment.
11. How is kame terrace formed?
12. What is meant by seismic shadow zones?
13. Distinguish between hydration and hydrolysis.
14. What is Exfoliation?

15. What are pediments?
16. What is colloidal plucking?
17. Mention the forces responsible for plate motion.
18. What is meant by steady state?

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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**WEST BENGAL STATE UNIVERSITY**  
B.A./B.Sc. Honours 1st Semester Examination, 2020, held in 2021

**GEOACOR02T-GEOGRAPHY (CC2)**

**CARTOGRAPHIC TECHNIQUES**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.  
All symbols are of usual significance.*

**CATEGORY-A**

**Answer any one question from the following (within 600 words)**

10×1 = 10

1. (a) What is false easting and northing? 3+7
- (b) Coordinates of two points A and B in the same zone of UTM projection are as follows:  
A = Easting 420,760, Northing 5,449,670  
B = Easting 420,710, Northing 5,449,630.  
Find the distance of AB.
2. Explain the process of coding system in open series topographical map published by Survey of India with sketches. Mention the latitudinal and longitudinal extension of the following old series topographical maps: 4+6
  - (i) 76B
  - (ii) 65 L /11
  - (iii) 65/D/5/SW

**CATEGORY-B**

**Answer any four questions from the following (within 150 words each)**

5×4 = 20

3. Differentiate between Perspective and Non-Perspective Projection. 5
4. What are the uses of Mercator's Projection? 5
5. Why is RF scale a unit free scale? Calculate the possible number of primary, secondary and tertiary divisions to read 3.324km on diagonal scale. 2+3
6. How does a projection retain its equal-area property? 5

7. Give a comparative study between linear scale and diagonal scale. 5
8. Prove that the radius of any parallel on Polar Zenithal Stereographic Projection is  $2R \tan ((90^\circ - \Phi)/2)$ . 5
9. How do you classify maps taking the scale as the criterion? 5

**CATEGORY-C**

**Answer any five questions from the following (within 50 words each) 2×5 = 10**

10. After 16 times enlargement, the R.L. of the reproduced map is 1:25000. Calculate the R.F. of the original map.
11. Discuss the relevance of conventional signs in maps.
12. What is meant by WGS 84?
13. What is the difference between a normal geographic map and a topographical (toposheet) map?
14. You have two maps, one of 1:1000 scale and the other of 1:200,000 scales. Which is the larger scale map and how much?
15. Compare Cylindrical Equal Area Projection and Mercator's Projection.
16. Define Loxodrome.
17. What is a thematic map?
18. Write a short note on 'Generating Globe'.

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