

**DIAMOND HARBOUR WOMEN'S UNIVERSITY**  
**M.A./M.Sc. 2nd SEMESTER EXAMINATION- 2023**

**Subject: Geography**

**Paper: GEO/CC/4201**

**Hydrology and Oceanography**

**Time: 2 hrs**

**Full Marks: 40**

*The figures in the margin indicate full marks*

*Answer any four questions selecting one from each Unit*

**Unit-I: Hydrology Concepts**

1. Define hydrological Cycle. Why is hydrological cycle called a closed system? Explain the role of hydrological cycle towards global heat transfer. **1+3+6**
2. What do you understand by groundwater contamination? How does groundwater contamination occur? **3+7**

**Unit-II: Hydrology-Applications and Measurements**

3. How the depleting groundwater table can be managed. Highlight the various smart water management techniques in tropical cities. **5+5**
4. Why is micro watershed management important in India? "Big dams are big threat"- Justify the statements with suitable examples in Indian context. **3+7**

**Unit-III: Oceanography Concepts**

5. Elaborate the origin of major structural and relief features of ocean floor with reference to plate tectonics. What is "swatch of no ground"? **7+3**
6. Define tide. Explain tide in syzygy position. Critically evaluate Equilibrium theory developed by Newton. **1+3+6**

**Unit- IV: Oceanography: Resource and Utilization**

7. What is meant by Sea level rise? Explore the causes of it with suitable examples. What are the possible consequences of it in reference to Indian coastal zones? **1+6+3**
8. What is "UNCLOS"? What is the significance of "CRZ" and "EEZ" for Coastal zone management? **4+6**



DIAMOND HARBOUR WOMEN'S UNIVERSITY  
M.A./M.Sc. 2nd SEMESTER EXAMINATION 2023

Subject: Geography

Paper: GEO/CC/4203

Population and Settlement Geography

Time: 2 hrs

Full Marks: 40

*The figures in the margin indicate full marks*

*Answer any four questions selecting one from each Unit*

**Unit-I: Population Concepts**

1. Write a note on Demographic Transition in the light of Zelinsky Mobility Transition model. Explain the trends of international migration of recent times. 4+6

2. Differentiate fertility from fecundity. State the reasons for high fertility rates in the developing countries. 3+7

**Unit-II: Population Theories and Policies**

3. Make an assessment of Todaro's model of migration. What is the fundamental reason of population growth in the capitalist society according to the Marx. 7+3

4. Critically evaluate the latest population policy of India. Mention the recent significant changes in China's population policy. 7+3

**Unit-III: Rural Settlement**

5. Discuss the characteristics of rural settlements in India. Briefly write about rural towns. 7+3

6. Make a comparison of rural house types between Northern Hilly Region and middle Gangetic Plain. What kinds of changes in the rural house types and building materials have taken place in recent times? 6+4

**Unit-IV: Urban Settlements**

7. What do you mean by Polis and Necropolis? Discuss the relative merits and demerits of Alonso model of urban morphology. 2+2+6

8. Discuss in brief about the major urban problems in India. Write a short note on the objectives of Smart City Mission. 6+4



**M.A/M.Sc. 1<sup>st</sup> Year 2<sup>nd</sup> Semester Examination- 2023**

**Subject: Geography**

**Module: 205 (Practical)**

**Paper Code: GEO/CC/PR/205  
(GNSS, RS & GIS)**

**Time: Four hours**

**Full marks: 50**

*The figure in the margin indicates full marks.*

*(Answer all questions)*

1. What is pseudo-random noise? What is meant by the spectral library? Write a short note on OLI. 2+2+4
2. From the given table of waypoints calculate the distance and area. Plot the surveyed area in MS Excel. 5+2

<i>Sl No</i>	<i>Waypoint</i>	<i>Easting</i>	<i>Northing</i>
1	A	669610	4374112
2	B	669614	4374113
3	C	669630	4374119
4	D	669644	4374122
5	E	669660	4374123
6	F	669668	4374123
7	G	669680	4374124
8	H	669680	4374125
9	I	669686	4374131
10	J	669665	4374130
11	K	669647	4374129
12	L	669628	4374129
1	A	669610	4374112

3. Extract an area from the given DEM using the given polygon layer (boundary) and prepare a relief map with proper annotation. 3+7
4. Georeference the map of the Birbhum district and digitise the said C.D. blocks. Prepare an appropriate thematic map using the given data. 4+ 4

<i>Sl No.</i>	<i>Blocks</i>	<i>Area in sq. km.</i>	<i>Population</i>
1	Nanoor	309.20	38,589
2	Bolpur-Sriniketan	331.52	37,280
3	Labhpur	264.82	35,450
4	Illambazar	259.50	29,015
5	Sainthia	303.20	36,014

5. Prepare a Standard FCC from the given Landsat-8 satellite image using QGIS software. 7

**Laboratory notebook and viva voce.**

**5+5**



**DIAMOND HARBOUR WOMEN'S UNIVERSITY**  
**M.A./M.Sc. 2nd SEMESTER EXAMINATION 2023**

**Subject: Geography**

**Paper: GEO/CC/4204**

**Social and Cultural Geography**

Time: 2 hrs

Full Marks: 40

*The figures in the margin indicate full marks*

*Answer any **four** questions selecting **one** from each Unit*

**Unit-I: Concepts in Social Geography**

1. Discuss major approaches to study social geography in details. What is meant by social process and why its understanding is important? **6+4**
2. Analyze the concept of social inequality with special reference to Indian society. How does empowerment of women ensure sustainable development of a nation? **7+3**

**Unit-II: Social systems and Elements**

3. Explain class-caste nexus in India at present. Write a note on the diverse ethnic composition of Indian population. **4+6**
4. What do you mean by religious switching? With suitable data and examples analyze the evolving global religious landscape. **2+8**

**Unit-III: Cultural Geography**

5. Discuss cultural trades, cultural complex and cultural system as fundamental concepts of cultural geography. Do you agree with the concepts of cultural autonomy- justify with reasons. **7+3**
6. Explain the concept of cultural segregation in details. Why the forces of globalization area a threat to cultural diversity. **6+4**

**Unit-IV: Social-Cultural Relations**

7. Enumerate the role of environment in the development of folk culture with special reference to India. What do you understand by cultural ecology? **7+3**
8. What is meant by cultural imperialism? Discuss the positive and negative effects on cultural globalization. **3+7**