

2019

Model Questions in Geography Honours



Semester 2

Under the CBCS System

West Bengal State University



1. List of Courses to be offered in Geography Honours (B.Sc. Honours)

1a. Core Subjects

Code (Theory)	Code (Practical)	Course name
GEOACOR01T	GEOACOR01P	Geotectonics and Geomorphology
GEOACOR02T	GEOACOR02P	Cartographic Techniques
GEOACOR03T		Human Geography
GEOACOR04T	GEOACOR04P	Cartograms and Thematic Mapping
GEOACOR05T	GEOACOR05P	Climatology
GEOACOR06T		Geography of India
GEOACOR07T	GEOACOR07P	Statistical Methods in Geography
GEOACOR08T		Regional Planning and Development
GEOACOR09T		Economic Geography
GEOACOR10T	GEOACOR10P	Environmental Geography
GEOACOR11T	GEOACOR11P	Field Work and Research Methodology
GEOACOR12T	GEOACOR12P	Remote Sensing and GIS
GEOACOR13T		Evolution of Geographical Thought
GEOACOR14T	GEOACOR14P	Disaster Management

1b. Choices for Four Discipline Specific Electives

Code	Course name
GEOADSE01T	Soil and Biogeography
GEOADSE02T	Settlement Geography
GEOADSE03T	Population Geography
GEOADSE04T	Hydrology and Oceanography
GEOADSE05T	Social Geography
GEOADSE06T	Resource Geography

1c. Choices for Four Generic Electives for Honours Students of Other Disciplines

Code	Course name
GEOHGEC01T	Physical Geography
GEOHGEC02T	Human Geography
GEOHGEC03T	General Cartography
GEOHGEC04T	Environmental Geography

1. Geography Honours Core Course Syllabus – Semester 2

GEOACOR03T – Human Geography ✧

6 Credits, 75 Marks [90 classes]

Unit I: Nature and Principles

1. Nature, scope and recent trends. Elements of Human Geography
2. Approaches to Human Geography; Resource, Locational, Landscape, Environmental
3. Concept and classification of race; ethnicity
4. Space, society and cultural regions (language and religion)

Unit II: Society, Demography and Ekistics

5. Evolution of human societies: Hunting and food gathering, pastoral nomadism, subsistence farming and industrial society
6. Human adaptation to environment: Eskimo, Masai and Maori
7. Population growth and distribution, composition; demographic transition
8. Population–Resource regions (Ackerman)
9. Types and patterns of rural settlements
10. Morphology of urban settlements

Question pattern

For 75 marks or 6 credit theory course:

FM	End Semester to be taken by University	Internal assessment	
		75	50
	Courses without practical	Attendance	Continuous evaluation
		5	20
	10 marks × 02 = 20 (2 out of 3) [may be suitably split into 2 parts keeping the spirit of the topic in mind] 05 marks × 04 = 20 (4 out of 7) 02 marks × 05 = 10 (5 out of 9)	Details of marking of attendance given in regulation	a) At least 3 class tests of 20 mark each to be taken and then averaged. b) Answer scripts to be preserved by college for future reference. These should be preserved until publication and review of result is complete.

GEOACOR03T – Human Geography ✧

10 Mark question [within 600 words]

1. Briefly discuss about the recent trends of Human Geography.
2. Define the nature of Human Geography with a special emphasis on its scope and content.
3. Write down a brief account on classification of race in India after Guha (1935). Illustrate your answer with suitable examples and diagrams.
4. Explain how socio-cultural and economic factors influence the development of social space in a metropolitan city.
5. Classify world languages as per their origin and family.
6. Describe the origin, development and basic characteristics of Abrahamic religions.
7. Describe the origin, development and basic characteristics of oriental religions.
8. Discuss the development of various types of rural settlements highlighting the geographical factors.
9. Discuss the different patterns or shapes of villages in Indian sub-continent with suitable sketches.
10. What do you mean by 'Urban Morphology'? Describe the Concentric Zone model of E.W Burgess highlighting its relevance and criticism.
11. Describe the Multiple Nuclei Theory of urban morphology proposed by C.D Harris and E.L. Ullman with its relevance.
12. Write a comparative analysis of Concentric, Sector and Multiple Nuclei theory of urban morphology.
13. Define Human Geography. Briefly describe different approaches to Human geography.
14. Elaborate the concept of resource and classify it.
15. Describe the resource creating factors? What do you mean by resistance in resource creation?
16. Discuss with specific examples how environmental aspects affect resource utilisation.
17. Describe the role of location in resource creation and utilisation.
18. What is landscape? Describe the concept of "Landscape Architect"
19. What do you mean by cultural landscape? Describe the principles and purposes of landscape designing.
20. Describe the environmental approaches in resource creation.
21. Explain how population explosion affects the development of a country.
22. State the various measurement of fertility. Discuss giving examples the factors affecting fertility rate in India.
23. Write down the characteristics of population structure in India by age and sex.
24. Discuss the demographic transition theory and assess the position of India in this context.
25. Account the global pattern of population growth with suitable examples.
26. State the cause and consequence of migration with suitable examples.
27. Discuss the relevance of demographic transition theory in developed and developing countries.
28. What are the types of age-sex pyramids? Why do they differ in different levels of socio-economic development?

29. Discuss with reasons the different types of migration most prevalent in the developing countries.
30. Compare the Malthusian population theory with the population theory of Marx.
31. Critically explain the optimum population growth theory.
32. What is meant by the Malthusian theory of population Growth? In the light of present population growth and technological development, will Malthus' pessimistic views of population expansion ever be justified?
33. Assess the factors that have contributed to the rapid growth of population in many Asian and African nations in the twentieth century.
34. What do you mean by subsistence farming? Mention its characteristics.
35. What role does agriculture play as an economic activity in modern society?
36. Briefly discuss about the techno-economic characteristics of subsistence farming
37. Give an account of the impact of industrial revolution on society.
38. Locate the areas of intensive farming in world. Give reasons for such development.
39. Describe the favourable physical and social condition of subsistence farming.
40. Briefly classify the ethnic groups of India.
41. How does the presence of different ethnic groups in a multi-racial society affect either rural or urban landscape?
42. Discuss in details lifestyle of Eskimo.
43. Discuss how the use of human resource can be optimized to improve productivity and level of development.
44. Assess the factors that are responsible for the uneven distribution of population?
45. Discuss with examples the differences in population growth between developed and developing countries, highlighting its impact on population resource balance.
46. Discuss with examples the differences in age sex structure between developed and developing countries.
47. Discuss population composition and explain how it influences economic development.
48. Explain the Demographic Transition model and discuss its applicability in explaining population trend in less developed countries.
49. Explain the socio-spatial organization of urban structure developed by Burgess in his concentric zone model.
50. Give an account of the attributes of pastoral economy with suitable examples.
51. Describe nomadic pastoralism in different parts of the globe and account for its growth and limitations.
52. What are the preconditions for the development of industrial economy?
53. Explain the nature of industrial economy and state how it is different from agricultural economy.
54. Discuss human adaptation to environment with examples: Eskimo, Masai and Maori.
55. Discuss briefly the evolution of human societies starting from hunting and food gathering stage till date.(5)
56. Classify the racial group in India according to Risley.
57. Briefly analysis how can adapted the Eskimo Tribe to the cold environment.
58. Discuss the socio-economic livelihood of Maori Tribe.

59. What is population resource region? Elaborate the population resource region according to Ackerman with example.
60. How do relate the population growth and economic development?
61. Discuss the major religion in the world with suitable example.
62. Discuss about the ethnic composition of India
63. Discuss the salient features of each population resource region.
64. Discuss population composition and explain how its influence how its influence demographic profile of any country.
65. State the global trends of population growth during last century and analyse the patterns of the growth.
66. Discuss the racial composition of India
67. Discuss the factors affecting development of rural settlement in India.
68. What are the different stages of Demographic Transition model?
69. What are the salient features of Hunting and food gathering? In which part of the world Hunting and food gathering has been practised?
70. What is Space? Classify space according to different approaches.
71. Mention the characteristics and distribution of pastoral nomadism
72. What is Hunting and Food gathering? Discuss the lifestyle of Eskimos as a Practitioners of the practice
73. Give an account of linguistic composition of India.
74. Give the concept of Tribe. Enumerate the socio cultural profile of Masai tribe.
75. What are the basic characteristics of Industrial Economy? Site two examples of Industrial economy from the World.
76. What are the favourable factors for pastoralism? Distinguish between nomadic and commercial; pastoralism.
77. What is pastoral nomadism? Discuss the characteristics of subsistence farming in the Indian context.
78. Analyse the role of language and religion in the creation of cultural groups in India.

5 Mark question [within 150 words]

1. Briefly discuss about the relationship between Human Geography and Human Ecology.
2. Define the characteristics of different elements of Human Geography.
3. Do you think differences in race and ethnicity is responsible for social segregation in India in to some extent? Give reasons in support of your answer.
4. Mention the salient features of the recent population policy in India.
5. Give reasons for the unfavourable sex ratio for females in India.
6. Explain the nature of dependency ratio in developed and developing countries of the world.
7. What are the positive checks to population growth according to Malthus?
8. What is population explosion? State its impact on economic situation of a country.
9. What are the main ideas of Marx's' theory of population growth?

10. How migration of population from Bangladesh to India can be explained by push and pull factors?
11. What demographic characteristics can be interpreted from an age sex pyramid?
12. Discuss the consequence of high dependency ratio.
13. Distinguish between demography and population geography.
14. Identify the high population density areas in India and mention the causes thereof.
15. Discuss the concept of optimum, over and under population.
16. What are causes of uneven distribution of population in India?
17. Distinguish between population structure and composition.
18. State the physical factors controlling population distribution.
19. Discuss the relation between poverty and fertility.
20. State the differences between population density and man-land ratio. Illustrate the significance of age sex structure
21. Briefly discuss the evolution of the concept of space in geography.
22. Briefly discuss the various methods of delimiting social space.
23. Discuss the correlation between geographical space and material space.
24. Distinguish between absolute space and relative space.
25. Briefly discuss the spatial distribution of major languages of the world.
26. Discuss the role of language in the creation of a cultural group with suitable examples.
27. Classify Indian languages with their geographical distribution.
28. State the role of religion in development of society and culture.
29. Discuss the influence of religion in traditional society with suitable examples.
30. State the geographical factors responsible for the development of the clustered settlement.
31. Give a short note on the functional classification of rural settlement.
32. State the geographical factors responsible for the development of dispersed settlement.
33. Give a short note on the Sector theory of urban morphology, proposed by Homer Hoyt
34. Briefly discuss the deterring factors the urban morphology.
35. Show how utilisation of resources change with development of technology
36. What are the popular misconceptions of resource?
37. Distinguish between recycling and substitution.
38. Describe the changing pattern of resource utilisation in respect to energy resources?
39. Distinguish between fund and flow resources.
40. How does mining affect environmental quality?
41. Elaborate the concept of 'location'
42. Distinguish between formal and functional region.
43. Discuss briefly the significance of resource recycling
44. What are the factors that create resource?
45. What do you mean by resource conservation?
46. Describe the concept of cultural landscape and landscape planning.
47. Describe the functional theory of resource.
48. What do you mean by phantom pile?
49. Explain the environmental conditions that sustain food gathering economy.
50. Explain the characteristics of industrial society.

51. Evaluate the impact on industrialization on environment
52. What do you mean by industrial region?
53. Relate the industrial location and regional development.
54. Write a short note on human welfare approach to industrialization
55. Identify the regions in the world where food gathering is practiced today.
56. State the relation between industrialization and urbanization.
57. What is nomadic herding?
58. Discuss food and economy of Eskimo
59. Discuss China Egypt type of Population Resource regions.
60. What demographic characteristics can be interpreted from an age-sex pyramid?
61. Comment on the shapes of age-sex pyramids of developed and developing countries with specific examples.
62. Discuss the consequences of a high dependency ratio.
63. Evaluate the model of demographic transition.
64. Discuss the final stage of demographic transition with suitable examples.
65. What are possible impacts of an increased dependency ratio?
66. What are the causes behind low sex ratio in India ?
67. What is the significance of population pyramid? Distinguish between geographical space and social space.
68. What is meant by social process?
69. Distinguish between culture region and culture realm.
70. What is the difference between social space and social distance?
71. How does cultural segregation create problem?
72. Write a short note on hunting and food gathering.
73. What environmental conditions sustain food gathering economy?
74. Discuss the patterns of rural settlement with proper sketches.
75. Divide world into Ackerman's Population Resource Region.
76. Discuss the relation between Anthropology and human geography.
77. Spatial Analysis is the main theme in the geography-explain it.
78. What are significances of age composition?
79. How do affect the economic factors to population distribution?
80. What are the controlling factors of sex ratio?
81. Distinguish between population pyramid of developed countries and developing countries.
82. What is the Beaujeu Garnier's demographic transition model?
83. How do originate the Hindu religion?
84. What are main origin theories of language?
85. Name two tribe who practice Hunting and food gathering, mentioning the features involved.
86. Briefly describe the characteristics of CBD.
87. What are the favourable conditions for development of linear pattern of settlement?
88. What are the factors responsible for development of Dispersed settlement? In which part of India this has been practiced?
89. Write a short note on religious composition of India.
90. What is Society? Briefly discuss about its characteristics.

91. What are the different components of culture?
92. Write a note on landscape approach of Human geography.
93. Distinguish between commercial and Subsistence farming.
94. Analyse the distinguishing characteristics of an Urban industrial economy.
95. State the growth of Pastoral economy in India and analyse its characteristics in modern India.
96. How Acreman correlated population, technology with resource?
97. Discuss the comparison between Races and Ethnicity?
98. Discuss the different characteristics of urban society at the light of deindustrialization.
99. Write how Eskimos have adapted to polar environment?
100. Discuss the trends of human population growth of India after 1951 to 2011.
101. Comment on economic composition of population.

2 Mark question [within 50 words]

1. Define Ethnicity.
2. What are the important morphological features of Human race? Give Example.
3. What are the important characteristics of Ethnicity in India?
4. State the importance of space in the discussion of geography.
5. What is relational space?
6. What is virtual space?
7. What is the various dimension of space?
8. What is space-time?
9. What is the definition of space in geography?
10. Define culture?
11. What is society?
12. What is Hamlet?
13. What is an amorphous village?
14. What is Mouza or Cadastral?
15. What is Double village?
16. What is the star pattern village?
17. What is a fortified village?
18. What is the census definition of village in India?
19. What is census town?
20. What do you understand by denied urbanisation?
21. What is CBD?
22. Define the Rural-Urban Fringe.
23. Define the commuter zone.
24. What is ghetto?
25. What is green belt in concentric zones theory?
26. What is Ekistics?
27. Explain the concept of holistic environment.
28. Relate population and environmental degradation. .
29. Discuss the utilisation of alternative resources.
30. Define resource perception.

31. What is infant mortality rate?
32. What is H. D. I.?
33. Difference between growth rate and natural increase.
34. What do you understand by age-cohort?
35. Mention two determinants of mortality.
36. Define zero and negative population growth.
37. What do you understand by stationary population growth?
38. Define neo-natal mortality rate
39. What is general fertility rate and age specific birth rate?
40. What is meant by law of diminishing return?
41. What is Baby Boom? Give examples.
42. What are the different methods of catching of fish?
43. What is meant by sustainable development?
44. What is subsistence farming?
45. Define traditional agriculture.
46. Define manufacturing industry.
47. What is intensive farming?
48. What is primary activity?
49. What is small scale industry?
50. Define land reclamation.
51. What are the elements of human geography?
52. Mention two indicators by which Ackerman developed his popular concept of Population Resource regions.
53. Explain hunting techniques of Eskimo.
54. What is optimum population?
55. What is over population?
56. What is under population?
57. What do you understand by ethnic composition of population?
58. What does aging population mean?
59. What is dependency ratio?
60. What is age-cohort?
61. Distinguish between site and situations of the settlements.
62. What is cultural hearth?
63. Define ethnic status.
64. Define resource.
65. Define man land ratio.
66. What is meant by urban morphology?
67. What do you understand by the term cultural group?
68. What is human geography?
69. What is Transhumance?
70. What do you mean by Space?
71. Classify the rural settlement?
72. What do you mean by pastoral nomadic?

73. What do you mean by Hunting and food gathering?
74. Classify the cultural region in the world?
75. What is nutritional density of population?
76. What is Gloger's Rule in respect of variation of race?
77. What is Animism Religion?
78. What is ethnic religion?
79. What is linguistic family?
80. What are the elements of Culture?
81. How many zones are mentioned in concentric zone theory?
82. What is Shifting cultivation?
83. Name some densely populated countries of the world.
84. What is Agro-based Society?
85. What is a Age Sex Pyramids?
86. Given some examples of Tribes from India.
87. What is Tupik and Kayak?
88. Where does Masai tribe live?
89. What is population distribution?
90. Write down the major causes of higher density of population in south Asia.
91. Write down basic differences of hunting and food gathering and subsistence farming society.
92. Write about the scope of human geography.
93. What is Treaty of Waitangi?

GEOACOR04T – Cartograms and Thematic Mapping ✧

4 Credits, 50 Marks [60 classes]

1. Concepts of rounding, scientific notation, logarithm and anti-logarithm, natural and log scales
2. Diagrammatic representation of data: Line, Bar, Isopleths
3. Representation of area data: Dots and spheres, proportional circles and Choropleth
4. Preparation and interpretation of land use land cover maps
5. Preparation and interpretation of socio-economic maps
6. Bearing: Magnetic and true, whole-circle and reduced

Basic concepts of surveying and survey equipment: Prismatic Compass, Dumpy Level, Theodolite

Question pattern

For 50 marks or 4 credit theory course:

FM	End Semester to be taken by University	Internal assessment	
50	40	10	
	Courses without practical	Attendance	Continuous evaluation
		2	8
	10 marks × 01 = 10 (1 out of 2) [may be suitably split into 2 parts keeping the spirit of the topic in mind] 05 marks × 04 = 20 (4 out of 7) 02 marks × 05 = 10 (5 out of 9)	Details of marking of attendance given in regulation	a) At least 3 class tests of 8 mark each to be taken and then averaged. b) Answer scripts to be preserved by college for future reference. These should be preserved until publication and review of result is complete.

GEOACOR04T – Cartograms and Thematic Mapping ✧

10 Mark question [within 600 words]

1. What is surveying? Classify surveying with examples.
2. State the principles of surveying? What are the uses of a survey?
3. Explain the function of a dumpy level with a net sketch. Explain also how it is used to find the stadia readings.
4. Explain how the ground distance of an object is measured with a Dumpy level and a Theodolite
5. The following consecutive readings were taken with a dumpy level at 30 m. interval along a line XY: 3.865, 3.762, 3.453, 2.987, 1.789, 0.854, 3.790, 3.561, 3.112, 2.569, 1.762, 1.111, 1.023, 0.986, 0.855. The level was shifted after 5th and 11th readings. RL of the first station is 32.000 m. Enter the readings on a neatly drawn field book. Find the RL of all the stations and check. Draw the long profile of XY on a suitable scale and interpret.
6. What are isopleth maps? Explain their principles of construction, use and interpretation.
7. What are choropleth maps? Explain their principles of construction, use and interpretation.
8. What are pie diagrams? Explain their principle of construction and use.
9. What are sphere diagrams? Explain their principle of construction. Which type of data is best represented by it?
10. What is diagram? Classify it. Explain the quality of data suitable for various diagrams.
11. What are quantitative dot maps? Explain their principle of construction use and interpretation
12. Discuss the various elements cadastral map highlighting its merits and demerits.
13. Discuss the various methods of preparation of land use and land cover maps.
14. Discuss the various types of socio-economic maps and their uses.
15. Elucidate different bearing and bearing measurement techniques used in land survey
16. What is bearing? (2)
17. Differentiate between natural and log scale. How do proportional circles differ from dots and spheres. (3+5)
18. Determine the height of the given object A with the following Theodolite reading.

Station at	Face	Object Sighted	Vernier Reading		Stadia Reading			Remarks
			VC	VD	Upper	Middle	Lower	
A	L	C	20° 20'	20° 12'	1.43	1.51	1.59	Height of A = 1.55 m
	R	C	19° 10'	18° 14'	1.42	1.50	1.58	RL of A =23 m

19. What is main source of error in prismatic survey? What are the difference between magnetic bearing and True bearing? (4+2+2)
20. Define thematic map with example? Discuss the main principle of socio-economic maps with example? (2+4)
21. Describe the various methods of data presentation in diagrammatic form.
22. Discuss the similarity and dissimilarity between choropleth and isopleth method. (2+8)

23. What is land use and land cover map? Explain the techniques of land use survey and mapping by field investigation. (2+8)
24. Throw some light on the classification of different land use and land cover done before such mapping in both rural and urban areas. (6)
25. Discuss the importance of preparing land use map. Why is it more difficult to prepare a land use map of an urban area than that of a rural area? (4+6)
26. Which methods can be applied for preparing socio-economic maps exhibiting distribution/concentration of one element? Data on which socio-economic elements is used preparing map? Mention twelve such elements. (7+3)
27. How do you convert a number to scientific notation? Explain positive and negative exponent with examples. What are the advantages of scientific notations?
28. What is the difference between logarithmic and linear scale? What are the rules of logarithms?
29. What is the difference between a log-log graph and a semi log graph? Explain with drawing. What are the uses of logarithms?
30. What is triangulation? Explain with a diagram how triangulation method is applied in the field.
31. Differentiate whole circle bearing from reduced bearing. What are the different methods for plotting the prismatic compass survey?
32. A surveyor was observing a bird sitting on a field from the balcony of his house by means of a transit Theodolite. If he recorded an angle of declination to be $500\ 54/40''$ and distance of the bird from the base of the balcony be 100 m, find out the height of the balcony from the ground level. Height of the instrument was 1.25m.
33. A closed traverse survey with 4 stations was carried out using Prismatic compass. But a part of the field book was found to be damaged leaving the following information.
34. Length of the lines AB, BC and CD were 41.55 m, 40.0 m and 70m respectively.
35. Included angles at station A, B, C and D were $140^{\circ}10'$, $99^{\circ}8'$, $60^{\circ}22'$ and $69^{\circ}20'$ respectively. Magnetic bearing of AB line is $15^{\circ}30'$
36. Prepare a proper field note book and compute the RL of each station by collimation method on the basis of the given data: Stations: A, B, C, D, E, F, G, H, I, J, K, L and M; Interval: 3 m; Change points are E and I; Staff Readings in m: 1.20, 1.10, 1.20, 1.00, 0.80, 0.90, 1.00, 0.90, 1.10, 1.20, 1.40, 1.00 and 1.50. The Bench Mark is 20 m at Station A.
37. Prepare a proper field book and compute the RL of each station by Rise and Fall method on the basis of given data: Stations: A, B, C, D, E, F, G, H, I, J and K, Interval: 3.00 m, Change point is F. Staff Readings in m: 3.87, 3.68, 3.50, 3.30, 3.35, 3.52, 6.28, 6.13, 5.95, 5.90, 5.80 and 5.70. The Bench Mark is 20 m at Station A.
38. From the given data calculate included angles and area of the traverse

Line	Length (m)	Corrected bearing		Remark
		FB	BB	
AB	4.45	1800	00	Survey was done anti-clockwise
BC	3.27	1090	2890	
CD	4.85	210	2010	
DA	4.75	2810	1010	

39. Make a comparative study among dot maps, choropleth and isopleths
40. Explain different types of line graphs

41. Explain the utility and significance of this kind of map.(5+5)
42. What is a socio economic map? (6)
43. Explain the concept of log and antilog with the help of scientific expression.
44. Distinguish between Chorochromatic and Choroschematic map.
45. What is a proportional pie diagram? Explain its significance of expressing data distribution. Why this diagram is called proportional? (2+6+2)
46. What is Traverse? How does prismatic compass play a significant role in Surveying? Mention the methods of error correction while doing prismatic compass survey.(4+4+2)
47. Explain methods of rounding with proper example.(4)
48. What is prismatic compass survey? What are the required instruments for this survey? (3+7)

5 Marks Questions [within 150 words]

1. What is meant by local attraction? Explain how it can be minimised?
2. State the sources of errors in doing dumpy level survey. Explain how it can be minimised.
3. Explain the methods of surveying.
4. What is a plan? Distinguish it from a map.
5. Describe the purposes of surveying.
6. What is collimation method?
7. What do you mean by discrete and continuous data? Give Suitable examples.
8. Discuss the various conventional sign, symbol and colours used in preparation of land use and land cover map.
9. Write a short note on cadastral map.
10. Briefly discuss the scale and symbols used to interpret the cadastral map.
11. Write a short note on quadrant system of bearing measurement.
12. Write a short note on whole circle system of bearing measurement
13. Write the following numbers in scientific notation
 - A. 0.00419
 - B. $2.1 \times 10^2 \times 8.7 \times 10^{-3}$
 - C. 8327
 - D. $3.1 \times 10^2 \times 4.2 \times 10^{-8}$
14. Calculate the logarithms to base 10 of the following numbers.
 - A. 1012.3
 - B. 0.0001
15. Explain why logarithm of 64 with base 8, 4, and $\sqrt{2}$ are different. What is mantissa?
16. Convert into the reduced bearing of $60^\circ 30'$, $132^\circ 30'$, 175° , $36^\circ 30'$ and $341^\circ 30'$
17. Suppose ABCD is a rectangle, where AB = 8m, BC = 7.5m, CD = 5.5m, DA = 6.5 and AC = 20m. Calculate the area of it.
18. Calculate the gradient, where First RL=8.19 m and Last RL=7.6 2m and distance 10 m?
19. What are the difference between Simple bar and Composite bar?
20. 5. How can you prepare the chorochromatic map?
21. Mention briefly the methods by which data can be presented?

22. "Among all the methods the diagrammatic presentation is the most effective way to describe, explore and summarize a set of data."- Explain.
23. What is the need for diagrammatic presentation of data?
24. Compare data representation in diagrammatic form and in tabular form.
25. Discuss the advantages and disadvantages of diagrammatic data presentation.
26. Why do geographers prefer to represent data by means of Thematic Map?
27. How can non-quantitative data be presented by map?
28. In which type of situations line graph is drawn on log metric scale either along both axis or along only Y axis?
29. In which situation is it better to use multiple bar diagram?
30. Mention different types of line graphs and their uses in geography.
31. What points should be kept in mind while drawing line graph?
32. State the assumption on which principle of interpolation is based and explain how isolines are drawn by interpolation.
33. What are the different methods that can be used for selection of dot scale?
34. Give an idea regarding choosing of colour scheme for preparing land use land cover map.
35. "Remote sensing data combined with field survey data can provide a unique and hybrid database for optimal mapping of land use and land cover." –Explain.
36. What are socio-economic maps? Discuss the need for preparing such maps.
37. Different types of indices are calculated for preparing socio-economic maps. Mention a few of such indices and briefly explain preparation of such type of socio-economic map.
38. What are the advantages and disadvantages of using sphere diagram?
39. What is the function of log?
40. If $\log x = -2.0258$, find x with the help of 5 figure log table
41. Find the logarithms of: (i) 1728 to the base $2\sqrt{3}$ and (ii) 0.000001 to the base 0.01
42. If logarithm of 5832 be 6, find the base
43. If $3 + \log_{10} x = 2 \log_{10} y$, find x in terms of y
44. If $\log_{10} 2 = 0.30103$ and $\log_{10} 3 = 0.47712$, find the values of $\log_{10} 45$
45. Find antilog of (i) 2.5463 and (ii) 0.9167
46. Evaluate 245×35 with the help of five figure log table
47. Round off 3.1416 to the nearest tenths, hundredths and thousandths
48. Following observations are recorded in a Theodolite survey. Determine the height and horizontal distance of the object 'P'.

Station of observation	Object	Face	Vertical circle reading		Remarks
			VC	VD	
A	P	L	$16^{\circ}40'30''$	$16^{\circ}40'30''$	AB = 11.00m Ins. Ht. at A = 1.340 m
		R	$16^{\circ}40'00''$	$16^{\circ}40'40''$	
B	P	L	$25^{\circ}39'30''$	$25^{\circ}39'30''$	Ins. Ht. at B = 1.510 m
		R	$25^{\circ}40'30''$	$25^{\circ}40'30''$	

49. What is characteristics and mantissa? How to determine characteristics and mantissa? Explain with examples.
50. Distinguish between line diagram and bar diagram.
51. What is parallel meridian method and how it is applicable.

52. Discuss about the basic concept of surveying and levelling? (5+5)
53. What is closing error? Why does this kind of error occur during surveying? (2+3)
54. What is rounding of data? Explain with proper example. Define bar graph. Write down the advantages and classification of bar graph.
55. Compares between choropleth, isopleths and chorochromatic maps.

2 Marks Questions [within 50 words]

1. What are socio-economic maps?
2. What is logarithm?
3. What is dumpy level survey?
4. What do you mean by B.S, F.S and R.L?
5. What is Geodetic surveying?
6. what do you mean by baseline, check line , tie line and north line?
7. What is reconnaissance level survey?
8. Explain the concept of level line and level surface.
9. Distinguish between line of collimation and plane of collimation.
10. What is profile levelling?
11. What is the difference between slope and gradient?
12. What do you mean by contour plan?
13. What is the difference between prismatic compass and dumpy level?
14. What is reciprocal levelling?
15. What is Trunian axis?
16. Distinguish between land use and land cover.
17. What is cadastral map?
18. What is Dag no and J.L no in a cadastral map of south Bengal?
19. Why the difference of forward bearing and backward bearing is always 180° ?
20. What is arbitrary bearing?
21. What would be the value of 63° NW reduced bearing on whole circle bearing?
22. What would be the value of 140° whole circle bearing on a reduced bearing?
23. Round 7837 to the nearest 10, 100, and 1000.
24. Discuss characteristics of rounding a number.
25. What is Bench Mark? How does it differ from Reduced Level?
26. What is datum?
27. What is the log number of 216.Explain it.
28. What is basic principle of Weaver's crop combination?
29. What is the advantage of Theodolite survey?
30. What do you understand by the term 'data '?
31. What type of data is generally widely used in geography?
32. Distinguish among one, two and three dimensional diagrams.
33. While drawing line graph we join the plotted points by either straight or curved line .Why we do such joining?

34. In which situation the plotted points are joined by straight line and when they are joined by smooth curve?
35. While drawing line graph sometimes a break in the vertical axis is shown. What are the advantage and disadvantage of showing such break?
36. Mention the properties of bar diagram.
37. In what respect pyramid bar diagram is different from other bar diagram?
38. Data on which four geographical elements can be shown by proportional circle?
39. Is it possible to show number of population or amount of forest area directly by means of choropleth method? Give reasons for your answer.
40. In which type of situation we use open class when preparing map by choropleth method?
41. While preparing choropleth map how will we classify given /calculated values when their range and dispersion is exceptionally high?
42. How known values for area are placed on map while preparing isopleths map?
43. Explain the relationship between the sizes of the administrative area and accuracy of presentation of any distribution by choropleth.
44. What is dot method?
45. What is the difference between land use and land cover?
46. Mention the first basic classification for land use mapping (on a scale one inch to a mile) along with colour scheme made under the direction of L, D. Stamp.
47. What aspects should be considered while interpreting land use map?
48. Mention a few secondary sources from which will you able to get data for preparing socio-economic map on India /different countries of the world.
49. Convert 4.2×10^{-7} to decimal notation.
50. Convert 93,000,000 to scientific notation.
51. What do you mean by Left face and Right Face?
52. What is traversing?
53. Differentiate gradient from slope
54. What is spot height
55. Define parallax
56. What is magnetic declination?
57. If $\log 3 = 0.4771$, find the number of digits in 343
58. Show that $\log 210 - \log 8125 = 1$
59. Using the log table find the value of: antilog -3.5126
60. Using the log table find the value of: $\log 0.5126$
61. Why Theodolite is called transit?
62. What is the significance of levelling in conducting authentic survey?
63. Round up the following data: 72.8, 72.8146, 72.465, 183.575, 116, 500, 000
64. Why scientific notations or powers are useful when writing numbers?
65. Write down the numbers using scientific notations: 100000000, 0.00001, 0.00003416, 86400000000
66. Solve the following equations: (5) (3), (102) (103), (4000000) (0.0000000002), (0.006), (80000/0.04)
67. What are the different types of traversing?

68. Distinguish between chart and diagram.
69. What is azimuth?