

OLD
Part II 3-Tier
2016

GEOGRAPHY

(Honours)

PAPER—V (Set-1)

(PRACTICAL)

Full Marks : 100

Time : 6 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer all questions.

1. (a) A map with R.F. 1 : 30,000 is enlarged 4 times.
- (i) Calculate the R.F. of new map.
 - (ii) What will be the length of 12 Km long road on new map? 2+2.
- (b) Construct a linear comparative scale to show 1 kilometer 1 mile marks in the primary and $\frac{1}{2}$ kilometer and $\frac{1}{2}$ mile marks in the secondary divisions respectively where R.F. is 1 : 60,000. 6

(Turn Over)

2. Draw proportional pie-graph to show live stock category in some selected CD Blocks of a district based on the following data and interpret it.

CD Blocks	Cattle	Buffalo	Goats	Poultry
1.	50455	2098	49577	204877
2.	63372	4123	37192	147611
3.	57228	4321	33899	120020
4.	59340	3265	24122	76259

8+2

3. Draw a fly there graph of station X on the basis of following data and interpret it.

Months	J	F	M	A	M	J	J	A	S	O	N	D
Temp °F	60	62	70	82	88	89	88	84	82	78	68	60
Rainfall in inches	0.1	0.2	0.1	0.15	0.2	0.3	2.6	1.9	0.8	0.1	0.1	0.1

8+2

4. Prepare a choropleth map to show the police-station-wise population density of some selected police stations of Purba Medinipur district with following data (2001) and interpret it.

Sl No.	Police Station	Population (2001)	Area (km ²)
1.	Panskura	555021	394.83
2.	Moyna	196502	154.51
3.	Nandakumar	229462	165.70

Sl No.	Police Station	Population (2001)	Area (km ²)
4.	Mahishadal	182191	146.48
5.	Bhagawanpur	366449	357.81
6.	Nandigram	434242	413.74
7.	Palaspur	302160	359.80
8.	Khejuri	232081	263.29

8+2

5. (a) Draw the graticules of Polar Lenithal Gnomoric Projection from 60°S to 90°S at an interval of 10° on a scale of 1:6,50,00,000. 16

(b) Define plane of projections and developable surface and classify map projections based on planes of projection. 2+2

6. Attempt any one of the survey after lottery :

(a) Run a closed traverse survey by prismatic compass around four stations WXYZ to be marked in the field.

(i) Enter the readings in a neatly drawn field book.

(ii) Complete the table with necessary corrections.

(iii) Plot the traverse on a suitable scale.

(iv) What is closing error? 12+6+5+2

Or

(b) To determine the height of a given object make necessary survey with transit theodolite following least accessible method with the following :

- (i) Enter the readings with proper field book.
- (ii) Plot the data with suitable scale.
- (iii) Find out the slanting distance between the station of observation and observed point.
- (iv) What is triangulation ?

8+10+4+3

Or

(c) Run a Dumpy Level Survey along the line PQ (30m) taking staff readings at 5m intervals (C.P. at 15 m.). Bench Mark at change point is 20m.

- (i) Enter the readings on a neatly drawn field book.
- (ii) Calculate the Reduced Levels of the stations.
- (iii) Draw the profile PQ on a suitable scale selecting suitable datum.
- (iv) Find out the slope and gradient between first station and terminal station.

8+5+8+4

7. Mention the uses of G.P.S. in the present day life. 5

8. Laboratory Note Book and Viva-Voce. 5+5

OLD
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(PRACTICAL)

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Answer all questions.

1. (a) In a vernier scale V.C. is $45''$ and the smallest main scale division is $15'$. How many divisions are there in vernier scale? With this draw a vernier scale to read $55^{\circ}35'15''$.
- (b) The scale of a map is 2 cm to 1 Km. The map is reduced $\frac{1}{4}$ th of its original size. Calculate the R.F. of the reduced map. 8+2

(Turn Over)

2. Draw bar graph showing the occupational structure of the different workers ; and non-workers and interpret the diagram.

SL No.	Occupational Structure					Non-workers
	Workers					
	Cultivators	Industrial	Marginal	Others		
1.	15,200	2,520	1,340	1,450	28,300	
2.	8,350	2,300	850	1,020	20,500	
3.	18,900	3,000	1,550	1,100	35,000	
4.	24,000	1,800	2,500	1,800	42,400	
5.	12,500	3,900	1,200	2,500	31,500	

8+2

3. Draw a climograph from the following data & identify the climate type.

Months	J	F	M	A	M	J	J	A	S	O	N	D
Wet Bulb Temp °F	65.5	72.5	78.0	82.0	83.0	83.0	81.10	75.50	73.20	65.5	64.5	61.1
Relative Humidity (%)	82	84	65	63	52	47	44	41	48	58	88	86

8+2

4. Briefly answer the following questions :

- Explain of disadvantages of Choropleth Map.
- Write the importance of Ergograph.
- Distinguish between choropleth and isopleth map.

- (d) Distinguish between map and chart.
- (e) Comment on the recent development of mapping techniques in geography.
5. (a) Distinguish between perspective & non-perspective projection.
- (b) Draw the graticules of Polyconic Projection extending from 35°N to 75°N & 20°W to 60°E at an interval of 10° with a scale of 1:65,000,000.
- (c) Mention the major properties of this projection.
6. Any one of the following surveys to be done allotted by lottery :
- (a) Make a close traverse (ABCD) survey with the help of Prismatic Compass given in the field.
- (i) Prepare the field book & enter the readings.
- (ii) Make necessary corrections.
- (iii) Plot the traverse by Parallel Meridian Method.
- (iv) Find out the actual ground area of the traverse.

8+7+5+5

Or

- (b) Make a Dumpy Level Survey along a line AB (40m.) taking staff reading at 4 m. interval. The change point is at 20m. with BM of 18.8m :
- (i) Prepare a field book and enter the readings taken from the field survey.

- (ii) Calculate the reduced levels & show arithmetic check.
- (iii) Draw profile on suitable scales.
- (iv) Interpret the nature of gradient between initial and terminal point.
- (v) Define datum and collimation level.

8+4+2+6+3+2

- (c) Determine the height of an object given in the field with transit theodolite with base inaccessible by adopting same vertical method (Instrument height will remain equal both the station).

- (i) Prepare a proper field book and enter the reading.
- (ii) Calculate the height of the object.
- (iii) Plot the data with suitable scale.
- (iv) Calculate the slanting distance between the object and the base of the instrument.
- (v) Distinguish between Travers Survey and Triangulation Survey.

8+6+4+3+4

7. Briefly mention the principles and application of G.P.S.

5

8. Laboratory Note Book and Viva-Voce.

5+5