6 SEM TDC GGR M 1

2017

(May)

GEOGRAPHY

(Major)

Course: 601

(Map Projection and Cartographic Methods)

Full Marks: 48
Pass Marks: 19/14

Time: 2 hours

The figures in the margin indicate full marks for the questions

- **1.** Answer the following as directed: $1 \times 6 = 6$
 - (a) Which is the most common group of projections suitable for the map of India?
 - (b) All equal area projections are the perspective projections.

(Write Yes or No)

- (c) Name the instrument by which 'rise and fall' method is applied to compute the level.
- (d) What is the expression of departure (D), if the latitude (L) of the line of length l_1 and reduced bearing θ_1 is $L = +l_1 \cos \theta_1$?
- (e) Waypoint is an aspect of GPS/GIS.

 (Select the correct answer)
- (f) Remote sensing sensors may be airborne or ____.

(Fill in the blank)

- Write short notes of the following (within 100 words each):
 4×3=12
 - (a) Geometrical projection
 - (b) Plane surveying
 - (c) Global Positioning System (GPS)

UNIT—I

(Map Projection)

3. Write on the history of development of map projections.

10

Or

What projections would you use for maps to represent the distribution of population in India? Justify your choices. 7+3=10

UNIT-II

(Cartographic Methods)

4. Define surveying. Mention the basic principles of survey. 3+7=10

Or

What is reciprocal levelling? Find out true reduced level (RL) from the following notes referred to reciprocal levels taken with one level:

10

| Inst. at | Staff reading on | | Remarks |
|----------|------------------|-------|------------|
| | P | Q | |
| P | 1.824 | 2.748 | RL of |
| Q | 0.928 | 1.606 | P= 126·386 |

UNIT-III

(Modern Cartographic Methods)

5. What is GIS? What are the components of GIS?
4+6=10

Or

Write on air photographs and satellite imagery. Mention their basic properties.

6+4=10

* * *