

## Guidelines for Higher Secondary Practical Evaluation GEOGRAPHY

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Outcome focused assessment approach is followed at higher secondary level. The curriculum and assessment procedure for Higher Secondary level has been revised by giving importance to learner centered, process oriented activity based and value oriented. Both comprehensive and continuous assessment has been implemented to assess the proficiency of the learners at cognitive and socio emotional areas. As part of this geography practical is also revised by giving importance to learning outcomes. In the area of practical evaluation in geography, the scheme of evaluation, mode of evaluation and the weightage is revised without altering the syllabus. The general guidance given below are to be followed while conducting the evaluation of geography practical work.

1. The practical and theory classes should be conducted simultaneously as the part of teaching learning process with maximum integration.
2. Geography practical evaluation is restructured. The scheme of evaluation mode of evaluation and the weight of scores in geography practical is restructured but the syllabus must be followed without any change.
3. Geography scheme of practical evaluation is restructured in four different methods such as: - on the spot, drawing, calculation and computer aided
4. A proper record of all the practical work carried out in class XI and XII should be maintained and it will be assessed only in the class XII practical examination.
5. A field work should be conducted based on the cases given in the chapter 5 of part II Geography practical textbook.
6. The total score for the PE is distributed as -

practical examination	-	32 scores
field survey report	-	2 scores

record	-	4 scores
viva	-	2 scores
Total	-	40 scores

7. External evaluation of practical work will be done at the end of second year.
8. The practical assessment should be conducted in batches, which should not exceed 15 students.
9. Students must attend the practical evaluation with 'Practical Record' and Field Survey Report'. Practical record should contain all necessary recordings related to first and second year syllabus.
10. The practical record should be duly signed by the after the completion of each practical work.
11. Practical work of class XII should commence only after completing Part I and should be recorded accordingly in the record book.
12. At the end of class XI, an internal evaluation of practical work in geography will be conducted.
13. The score for internal practical evaluation for class XI is limited to 20. The time allotment of practical work for one batch is 1 ½ hour. This score will not be considered for final PE, it is only a part of internal evaluation.
14. The total score for external practical evaluation for class XII is 40 and the time allotted for one batch is 3 hours.
15. Scheme of evaluation, mode of evaluation and weightage of scores is given along with the syllabus which should be strictly followed.
16. Each school must have a Geography Laboratory with ample room for exhibiting the equipments for conducting practicals and to accommodate the students for practical sessions. The size specification of geography laboratory and the equipments required therein is appended.

**Class ANNUAL PLAN (PRACTICAL)**  
**XI**

Term	Month	Chapters	Name of Chapters
I	July	1	Introduction to Maps
		2	Map Scale
	August	3	Latitude, Longitude and Time
		4	Map Projections
II	September	4	Map Projections (continued ...)
	October	4	Map Projections (continued ...)
	November	5	Topographical Maps
	December	6	Topographical Maps
III	January	6	Topographical Maps
	February	7	Introduction to Remote Sensing
		8	Introduction to Remote Sensing

**Class XII**

Term	Month	Chapters	Name of Chapters
I	June	1	Data - Its Source and
		2	Compilation Data Processing
II	July	5	Graphical Representation of Data
	Aug - Sep	3	
III	Oct - Dec	4	Geographical representation of Data
	Jan	6	Spatial Information Technology

## DETAILS OF PRACTICAL EVALUATION

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### Class XI & XII

#### Modes of geography practical evaluation

- On the spot.
- Drawing.
- Calculations.
- Computer aided.

Note : The modes of evaluation is identified according to the nature of unit of each class.

## LIST OF PRACTICAL FOR CLASS XI

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### Unit I - Introduction to Maps

#### On the spot.

- Classifies types of maps - Physical Maps, Cultural Maps, Large Scale Maps, small scale maps, etc.
- Use of Magnetic compass to orient the map.

#### Drawing.

- Cardinal points or important directions.

#### Calculations.

- Measurement of distance.
- Measurement of area.

### Unit II - Map Scale

#### On the spot.

- Measuring the length of curved features such as rivers, roads, etc. by using thread and rotameter.
- Methods of representing scale.

#### Drawing.

- Graphical scale using RF/statement of scale.

#### Calculations.

- Scale conversions. (Statement of scale into RF and RF into statement of scale.)

### Unit III - Latitude, Longitude and Time.

#### On the spot

- Identifying the latitude and longitude of given place with the help of atlas, wall maps or globe.

#### Drawing.

- Important latitudes and longitudes.
- Drawing specific latitude with given angular measurements.

#### Calculations.

- Time calculations.

#### **Unit IV - Map Projections.**

##### **On the spot.**

- Identifying the projections based on developable surface.

##### **Drawing.**

- Conical map projections

##### **Calculations.**

- Calculation of reduced earth radius.
- Calculation of length of equator.

#### **Unit V - Topographical Maps.**

##### **On the spot.**

- Identifying the conventional signs and symbols.
- Write the marginal information from the toposheet.
- Interpretation of toposheet.

##### **Drawing.**

- Conventional signs and symbols.
- Contour cross section.
- Layout plan.

##### **Calculations.**

- Toposheet - 6 point grid reference.

#### **Unit VII - Introduction to Remote Sensing.**

##### **On the spot.**

- Identify and use the instrument - GPS (Global Positioning System)
- Identify the geostationary satellites and sun synchronous satellites from the pictures.
- Identifying satellite imageries.
- Identifying various features from the imageries.
- GPS Survey

##### **Drawing.**

- Position of geostationary satellites and sun synchronous satellites.

## LIST OF PRACTICAL FOR CLASS XII

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### UNIT -I- DATA-ITS SOURCE AND COMPILATION

#### Drawing

- Frequency polygon
- Ogives.

#### Calculation

- Preparation of frequency distribution table

#### Computer aided

- Frequency polygon
- Ogives.(Less than & More than Ogives)

### UNIT - II - DATA PROCESSEING

#### Drawing

- Correlation graph

#### Calculator

- Mean, median, mode

#### Computer aided

- Correlation Graphs
- Calculation of Mean using statistical function

### UNIT - III - GRAPHICAL REPRESENTATION OF DATA

#### Drawing

- Construction of Wind rose & Star diagrams.
- Flow Chart(Traffic)
- Thematic maps
  1. Dot Map
  2. Choropleth map
  3. Isopleth map

#### Computer aided

- Excel / Ubandu based line, bar, polygraph, multiple Bar, pie diagram.

### UNIT - VI - SPATIAL INFORMATION TECNOLOGY

#### On the spot

- Identify the Raster entities, Vector entities & Real world entities

**Computer aided**

- Layering
- Overlay operations
- Buffer Operations

## LABORATORY EQUIPMENTS CLASS XI - GEOGRAPHY

### Unit I - Introduction to Maps

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1. Globe
2. Physical Maps
  - (a) Relief Maps
  - (b) Geological Maps
  - (c) Climatic Maps
  - (d) Soil Maps
3. Cultural Maps
  - (a) Political Maps
  - (b) Population Maps
  - (c) Economic Map
  - (d) Transportation Maps
4. Large-scale Maps
  - (a) Cadastral maps
  - (b) Topographical maps
5. Small-scale Maps
  - (a) Wall Maps
  - (b) Atlas Maps
6. Magnetic Compass

### Unit II - Map Scale

1. Meter Tape
2. Instrument Boxes

### **Unit III - Latitude, Longitude and Time**

1. Charts
  - a) Latitudes & Longitudes
  - b) Major Time Zones of the World

### **Unit IV - Map Projections**

1. Transparent Globe
2. Chart - Map Projections
3. Instrument Boxes

### **Unit V - Topographical Maps**

1. Reference Map of Topographical Sheets    2. Charts -
  - a) Conventional Signs and Symbols.
  - b) Contours and their cross sections
3. Relief Models -
  - a) Gentle Slope
  - b) Steep Slope
  - c) Concave Slope
  - d) Convex Slope
  - e) Conical Hill
  - f) Plateau
  - g) 'V'-shaped Valley
  - h) 'U' - shaped Valley
  - i) Gorge
  - j) Spur
  - k) CLIFF
  - l) Waterfall and Rapids
4. Toposheets

## **Unit VI - Introduction to Aerial Photographs**

1. Aerial Photographs (Stereopaire)
2. Stereoscope (Pocket /Mirror)

## **Unit VII - Introduction to Remote Sensing**

1. Charts -
  - a) Stages in remote sensing
  - b) Electromagnetic spectrum
  - c) Orbit of sun synchronous satellites
  - d) Geostationary satellites
2. Satellite Imageries

## **Unit. VIII - Weather Instruments, Maps and Charts**

1. Weather Instruments
  - a. Thermometer
  - b. Maximum & Minimum Thermometer
  - c. Wet Bulb & Dry Bulb Thermometer
  - d. Barometer (Mercury Barometer & Aneroid )
  - e. Wind Vane
  - f. Cup Anemometer
  - g. Rain Gauge
  - h. Hygrometer
  - i. Sun Shine Recorder
2. Weather Maps
3. Weather Charts
4. Charts - Weather Symbols

## LABORATORY EQUIPMENTS CLASS XII - GEOGRAPHY

### Unit I - Data - Its Source and Compilation

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1. Graph Paper
2. Instrument Boxes

### Unit II - Data Processing

1. Calculator
2. Graph Paper
3. Instrument Boxes

### Unit III - Graphical Representation of Data

1. Graph Paper
2. Calculator
3. Instrument Boxes

### Unit VI - Use of Computer in Data Processing and Mapping

1. Computer
2. Chart - parts of computer

### Unit V - Field Surveys

1. Camera
2. Measuring tape
3. Instruments as required for the topic

### Unit VI - Spatial Information Technology

1. G.I.S Software
2. Computer
3. Tracing Table

### Geography Lab

Geography laboratory room should have ample space to display weather instruments, working and still models in geography, place for tracing tables and computers, map stand, should easily accommodate 60 students to do geography practical work without much congestion.

**GEOGRAPHY PRACTICAL SCORE WEIGHTAGE**

Type of questions	No. of questions	Score per questions	Total score
On the spot	4	2	8
Drawing	4	3	12
Calculation	4	2	8
Computer aided	1	4	4
Field visit report			2
Viva			2
Practical record			4
<b>Total</b>			<b>40</b>

## SAMPLE QUESTION PAPER

Total Score : 40

Time : 3 hours

### On the spot

#### Answer Any Four

(4x2 = 8)

1. Identify the types of map displayed.
2. Mention the direction of the given object with reference to your position using magnetic compass.
3. Identify the features from the given satellite imageries.
4. Find out the precise location of the given object using GPS.
5. Identify any two settlements of the areas depicted in the given toposheets.
6. Identify the latitude and longitude of the given place with the help of an atlas or a wall map or a globe
7. Write the marginal information of the given toposheet.

### Drawing

#### Answer Any Four

(4x3 = 12)

1. Draw a graphical scale for the RF 1: 50000.
2. Construct the graticules of conical map projection with one standard parallel for a map scale 1: 20,000,000 with the projection interval 150 extending from 90° W to 90° E of the northern hemisphere.
3. Draw the contour cross section and profile for the photograph of the landforms.
  - a. Waterfall
  - b. 'V' shaped valley.

4. Prepare a layout plan using the given data by choosing an appropriate scale.
  - a. An area with 1500m length and 1000m width.
  - b. A perennial river flowing from north to south direction.
  - c. A paddy fields spread over the SW corner.
  - d. A metalled road running W to E, crossing the river at the centre of the region.
  - e. Broad gauge railway line running parallel to the metalled road.
  - f. A perennial pond located close to the bridge and to the south of metalled road.
5. Draw a frequency polygon with the given data.
6. Draw a choropleth /Isopleth /Dot map with the given data. (Outline map will be provided)

### Calculation

Answer Any Four

(4x2 = 8)

1. Convert the given scale as directed.
  - a. RF to Statement.
    - i. RF 1: 100000.
    - ii. RF 1: 126720.
  - b. Statement to RF.
    - i. 4cm represents 1 km.
    - ii. 1 inch represents 1 mile.

2. Calculate the local time for the following places when IST is 10am on 20th June 2015.
  - a. London (00)
  - b. New Orleans (900W)
3. Calculate the mean, median and mode for the following data.
4. Calculate the actual road distance between the given places from the toposheet provided.

**Computer aided.**

**Answer Any One**

(1x4 = 4)

1. Calculate the mean of the given data.
2. Prepare frequency polygon/ Ogives for the given data using computers.

<b>Viva</b>	<b>2</b>
<b>Field visit report</b>	<b>2</b>
<b>Practical record</b>	<b>4</b>