Revised Syllabus for B. A. – III and B. A. B. Ed.

(Introduced from June 2020 Onwards)

Revised Syllabus for

B. A. (Part III) Geography

DSE-E235 or Paper No. XIV (Practical Paper -II)

(ii) Title of Paper - Advanced Tools, Techniques & Field Work in

Geography(100 Marks)

Module-I: Introduction to Computer

Lectures- 50

Marks-10

- 1.1: Introduction to Computer
- 1.2: Application of computer in geography
 - 1.2.1: Construction of Line Graphs, Bar Graphs
 - 1.2.2: Construction of Pie Diagram and Scatter Diagram
- 1.3: Application of Excel for Data Analysis

Module:-II: Remote Sensing

Lectures- 50

Marks-15

- 2.1 Definition of Remote Sensing
- 2.2 Fundamentals of Remote Sensing: EMR, Sensors and Platforms
- 2.3 Application of Remote Sensing in Geography
- 2.4 Aerial photographs and Satellite imagery: Definition, types and difference between them
 - 2.5 Determination of Photo Scale
 - 2.6 Elements of image interpretation
 - 2.7 Identification of Physical and cultural features from Aerial Photographs or Satellite Imagery

Module-III: GIS and GNSS

Lectures- 50

Marks-15

- 3.1 Geographical Information System (GIS)
 - 3.1.1 Definition and components
- 3.1.2 GIS Data Structure: Types (spatial and non-spatial), Raster and Vector

data

3.1.3 Georeferencing, Digitization, Map Layout Preparation

- 3.1.4 Application of GIS in Geography: Land use or Land Cover, Urban Sprawl Analysis, Forests Monitoring
- 3.2 Global Navigation Satellite System
 - 3.2.1 Definition and components
 - 3.2.2: GPS and its applications in Geography
 - 3.2.3 Field work in GPS: Determining latitude, longitude and altitude
- 3.3: Exercise with Google earth Program.

Module-IV: Statistical methods and techniques Lectures- 60

Marks-10

- 4.1 Measures of Central Tendency: Mean, Median and Mode
- 4.2 Dispersion: Mean Deviation and Standard Deviation
- 4. 3Association and Correlation: Karl Pearson's Method (Product Moment)
- 4.4 Analysis of Time Series: Semi-average Method

Module-V: Surveying Lectures- 60

Marks-15

- 5.1 Introduction to Survey: Meaning and types
- 5.2 Preparation of plans of the given area with the following survey method

(Any one methods among them)

- A- Plane Table survey (Radial, Intersection, and Traverse method)
- B- Dumpy Level survey
- C- Theodolite survey
- **D-** Total Station
- E- Abony Level Survey
- 5.3 Preparation of plans Prismatic compass survey (Radical, Intersection and Traverse method)
 - 5.3.1 Types and conversion of bearings.
 - 5.3.2 Correction of bearing.

Module-VI: Project work based on field work any one of following:

Marks-15

Resource survey, Population survey, Agricultural survey, Settlement Survey,

Environmental issues, Industrial visit, Health survey, Natural Hazard or Disaster

1. Project Report must be content of following points:

Introduction – Aims – Objectives - Review of the literature - Data collection –

Methodology - Data Analysis – Interpretation - Findings – Suggestions - Bibliography

- 2. The duration of the field work should not exceed than 20 days.
- 4. The word count of the report should be about 8000 to 12,000 excluding figures, tables, photographs, maps, references and appendices.
- 5. One copy per student of the report as per research standard should be submitted at the time of examination.

Module-VII: Study Tour

Marks-10

Maximum 15 days of Study Tour and preparation of Tour Report.

The Study Tour Report must be content of following points:

Introduction – Necessity – Importance - Route map – Objectives – Methodology -

Geographical Profile (Natural, Socio-economic and Cultural) - Geographical importance of visited tourist places - Conclusion - References

Journal and Viva Voce

Marks 10

Note:

- 1. Use of stencils, log tables, computer and calculator is allowed.
- 2. Journal should be completed and duly certified by practical in-charge and Head of the Department.

Reference:

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- 36. Maurice Yeats, An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, New York, 1974.
- 37. P. Saha and P. Basu (2006): Advanced Practical Geography, Books and Allied Publication, Kolkata, India.
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- 40. Robinson Rep. (2010): Elements of Cartography 6/e
- 41. Khan Za (1998): Text Book of Practical Geography
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