

**U.G. 3rd Semester Examination-2020**

**ENVIRONMENTAL SCIENCE**

**[HONOURS]**

**Skill Enhancement Course (SEC)**

**Course Code : ENVS-H-SEC-L-01(A&B)-T**

Full Marks : 40

Time : 2 Hours

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

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

**Answer all the questions from selected Option.**

**OPTION-A**

**ENVS-H-SEC-L-01A-T**

**(Remote Sensing, Geographic Information System & Modelling)**

1. Answer any **five** of the following:  $2 \times 5 = 10$ 
  - i) Name two IRS satellites.
  - ii) What is meant by spectral signature?
  - iii) Cite two examples of active sensors.
  - iv) What is GPS?
  - v) Define normal distribution.

- vi) What is spatial resolution?
  - vii) What is meant by polar orbiting satellite?
  - viii) What is meant by non-spatial attributes?
2. Answer any **two** from the following:  $5 \times 2 = 10$ 
    - i) Explain the geospatial technologies with neat sketches.
    - ii) Distinguish between raster data and vector data.
    - iii) Write about scale of aerial photograph.
    - iv) Differentiate skewness from kurtosis.
  3. Answer **any two** from the following:  $10 \times 2 = 20$ 
    - i) Bring out the merits and demerits of standard false colour composite (FCC).
    - ii) Discuss different elements of aerial photograph interpretation with suitable examples.
    - iii) Appraise the application of integrated remote sensing and GIS techniques in watershed management.
    - iv) Write about the principles of the preparation of attribute table(s) and data management in GIS.

**OPTION-B**

**ENVS-H-SEC-L-01B-T**

**(Occupational Health and Environmental Safety)**

1. Answer any **five** from the following :  $2 \times 5 = 10$
- i) What is occupational disease?
  - ii) State the importance of job safety analysis.
  - iii) What is meant by risk assessment?
  - iv) Distinguish between safety inspection and safety audit.
  - v) What is dose response relationship?
  - vi) Define respiratory PPE with examples.
  - vii) What is primary monitoring of health protection?
  - viii) Write two objectives of health surveillance.
2. Answer any **two** of the following:  $5 \times 2 = 10$
- i) How the design and development of a training programme for safety education is performed?
  - ii) Mention the causes and consequences of asbestosis.
  - iii) Write down the assessment procedure of safety measures for the workers in a brick field factory.

- iv) Write a note on the humanitarian factors influencing safety.
3. Answer any **two** of the following:  $10 \times 2 = 20$
- i) Define injury in occupational health perspective. What are the types of accidents? Write causes of accidents and their remedial measures.  $1 + 2 + (4 + 3) = 10$
  - ii) What is non-respiratory personal protective device? Describe different non-respiratory personal protective devices to avoid occupational accidents.  $2 + 8 = 10$
  - iii) Describe the method of occupational health study on the workers of a small-scale industry through survey and documentation.  $5 + 5 = 10$
  - iv) Write different occupational diseases, their impacts and methods of prevention.  $4 + 3 + 3 = 10$