

2016

M.Phil.

1st Semester Examination

LIFE SCIENCE

PAPER—LSC-115

Full Marks : 40

Time : 2 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.

Illustrate the answers wherever necessary.

Group—A

1. Answer *any four* questions from the following : 4×2
 - (a) What are the differences between images and photographs in relation to Remote Sensing?
 - (b) Differentiate Eco restoration from Eco rehabilitation.

(Turn Over)

- (c) At what height do geostationary satellite operate ?
- (d) Chronologically enlist different International convention of biodiversity.
- (e) Elucidate the significance of Ecosystem Diversity.
- (f) Enlist major forest types in India.

Group—B

2. Answer *any four* question from the following : 4×4

- (a) Highlight the rate of extinction citing examples.
- (b) How spectral reflectivity curve used in bioresource monitoring? 4
- (c) Discuss on the root causes of biodiversity loss.
- (d) Mention the criteria for designating an area as to be a 'Hot-Spot'. Enlist different hotspots in Indian Subcontinent.
- (e) Explain SLOSS concept of conservation.

- (f) What are the two forms of selective scattering and how does selective scattering differ from non-selective scattering?

Group—C

3. Define *any two* of the following terms : 2×8

- (a) Define metapopulation. Explain Levin's model on metapopulation dynamics and mention its limitation.

2+4+2

- (b) Draw schematically spectral reflectivity curve of three earth surface features at different EM Wavelength.

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- (c) (i) Define conservation biology.

(ii) What do you mean by novel ecosystem?

(iii) Discuss the impact of global warming on species extinction.

(iv) Explain how remote sensing technique is effective in biological conservation programme.

2+2+2+2