

M.Sc. (Part-II) Semester-III (CBCS) Examination
ENVIRONMENTAL SCIENCE
(Remote Sensing, GIS and Computer Applications)
Paper-X

Time : Three Hours]

[Maximum Marks : 80

N.B. :— All questions are compulsory and carry equal marks.

1. (a) Define Remote Sensing. Explain the components of Remote Sensing system. 6
- (b) Describe Hemispheric transmittance. 5
- (c) Give the application of Remote Sensing in water resources study. 5

OR

- (d) Comment on Black body and real body radiations. 6
- (e) Give the historical perspectives of remote sensing. 5
- (f) Give the applications of remote sensing in wildlife habitat. 5
2. (g) Discuss light scattering and absorption phenomenon in atmosphere. 6
- (h) Write in brief about the interaction between EMR and remote sensing. 5
- (i) Discuss about spectral signature. 5

OR

- (j) Explain in brief remote sensing 'Platforms' 6
- (k) Explain the characteristics of thematic mapper and multispectral scanner. 5
- (l) Comment on-orbits in remote sensing. 5
3. Define aerial photography. Add a note on photogrammetry. Give the applications of remote sensing in forestry. 16

OR

Explain in short any four methods for interpretation of aerial photographs. Give the application in urban and regional planning. 16

4. (m) What is Computer ? Discuss the history of computers. 6
- (n) Give the applications of computer. 5
- (o) Explain Chi-square test and its applications. 5

OR

- (p) Explain with diagram the main parts of computer. 6
- (q) Explain geometric and harmonic means. 5
- (r) Explain the test of hypothesis with its components. 5
5. (s) Define GIS. Add a note on its capabilities and advantages. 8
- (t) Discuss about 'Raster and Vector' data model. 8

OR

- (u) Give in short the objectives of GIS and elements of GIS. 8
- (v) Give the applications of GIS in environmental management. 8

