

**2019/TDC/ODD/SEM/EESDSC/
EESGE-301T/194**

TDC (CBCS) Odd Semester Exam., 2019

ECOLOGY AND ENVIRONMENTAL SCIENCE

(3rd Semester)

Course No. : EESDSC/EESGE-301T

(Gender and Environment)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

UNIT—I

1. Answer any *three* of the following questions :

1×3=3

- (a) What is the basic difference of gender equity in rural and urban setting?
- (b) What do you mean by gender equity?
- (c) Define gender.
- (d) Name where in North-East India matriarchal society is prevalent.

(2)

2. Answer any *one* of the following questions : 2

(a) Define gender from socially constructed concept.

(b) What is the existence of transgender people in society?

3. Answer either (a) or (b) :

(a) What is matriarchy? Elucidate a matriarchal society in India. 1+4=5

(b) What is gender equity? Describe the gender equity in rural setting. 1+4=5

UNIT—II

4. Answer any *three* of the following questions :
1×3=3

(a) What is gender division?

(b) State a role of women in cultural perspective of environment.

(c) What do you understand by the division of role between men and women?

(d) Mention any two areas of environment where gender plays an important role.

(3)

5. Answer any *one* of the following questions : 2

(a) Differentiate between the role of men and women in social perspective of environment.

(b) Write a note on the role of women in economic perspective of environment.

6. Answer either (a) or (b) :

(a) Discuss critically the gender inequalities in Indian society. 5

(b) Discuss the role of women in cultural perspective for a better environment. 5

UNIT—III

7. Answer any *three* of the following questions :
1×3=3

(a) Define renewable resources. Give example.

(b) What do you mean by non-renewable resources of environment?

(c) Why is active participation of women needed for environmental safeguard?

(d) Expand GGCA.

(4)

8. Answer any *one* of the following questions : 2

- (a) Write a note on environmental degradation.
- (b) What is the impact of forest clearings on village women?

9. Answer either (a) or (b) :

- (a) Write a note on differential dependencies of gender on environmental resources. 5
- (b) Elucidate how women folk respond to flood. 5

UNIT—IV

10. Answer any *three* of the following questions :
1×3=3

- (a) Name one woman environmentalist from India.
- (b) Name one environmental movement initiated by an Indian woman.
- (c) State any two roles of women in environmental education.
- (d) Name the woman who is leading the conservation of Greater Adjutant (Hargila) in Assam.

(5)

11. Answer any *one* of the following questions : 2

- (a) What do you mean by environmental management?
- (b) Write a note on Chipko Movement.

12. Answer either (a) or (b) :

- (a) What is environmental education? Elaborate the role of women in environmental education. 5
- (b) Define sustainable development. Explain the role of women in sustainable development. 1+4=5

UNIT—V

13. Answer any *three* of the following questions :
1×3=3

- (a) What is the meaning of gender empowerment?
- (b) What are the different types of gender discrimination?
- (c) Name one action group from Assam on gender equity.
- (d) State the difference between gender equity and gender equality.

(6)

14. Answer any *one* of the following questions : 2

(a) Write the role of media in bringing a change in society on gender discrimination.

(b) What do you understand by sustainable future?

15. Answer either (a) or (b) :

(a) Discuss critically the need for gender equity in ensuring a sustainable future. 5

(b) Explain how equal access to resource for men and women helps towards sustainable future. 5

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I/II/195**

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Option—I for Honours Students and Option—II for
Pass Students

OPTION—I

(For Honours Students)

Course No. : EESSEC-301T

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

Answer questions according to the instructions
provided alongside. All Units are to be attempted.

UNIT—I

1. Answer any *three* of the following in (Very short type) : 1×3=3
- (a) Give one example of a satellite used in remote sensing.

(2)

- (b) Give one example of a sensor.
 (c) Name the visible part of the electromagnetic spectrum.
 (d) Which of the two has longer wavelength—infrared or ultraviolet ray?

2. Answer any *one* of the following (Short type) :

2

- (a) Define remote sensing.
 (b) Define aerial photography.

3. Answer any *one* of the following (Broad type/Essay type) :

5

- (a) Describe spectral signature and its use in remote sensing.
 (b) What do you understand by image interpretation? Describe briefly the basic techniques of image interpretation.

UNIT—II

4. Answer any *three* of the following as directed (Very short type) :

1×3=3

- (a) Give one example of raster data.
 (b) Address of a person is an example of raster data/vector data.

(Choose one of two)

- (c) Name one hardware used for GIS.
 (d) Name two functions of GIS.

(3)

5. Answer any *one* of the following (Short type) : 2

- (a) Define geographical information system.
 (b) Name the various components of geographical information system.

6. Answer any *one* of the following (Broad type/Essay type) :

5

- (a) Distinguish between aspatial and spatial data giving examples of each type. Describe the uses of these types of data.
 (b) Distinguish between raster and vector data. Give examples and uses of both raster and vector data.

UNIT—III

7. Answer any *three* of the following as directed (Very short type) :

1×3=3

- (a) What is the full form of GPS?
 (b) Name two softwares used for GIS.
 (c) Name the instrument used to import maps into the GIS.
 (d) Agricultural land is an example of landuse/land cover.

(Choose one of two)

(4)

8. Answer any *one* of the following (Short type) : 2

- (a) What is ground truthing?
- (b) Define landuse and land cover with examples.

9. Answer any *one* of the following (Broad type/Essay type) : 5

- (a) Describe briefly the data processing in GIS.
- (b) What is the importance of data base management? How is GIS an efficient database management system?

UNIT—IV

10. Answer any *three* of the following as directed (Very short type) : $1 \times 3 = 3$

- (a) Name two fields of natural resource management where remote sensing and GIS may be applied.
- (b) Name one application of remote sensing and GIS in the field of agriculture.
- (c) What type of sensor may be used for atmospheric studies?
- (d) Microwave sensors/optical sensors are useful for geological studies.

(Choose any one)

(5)

11. Answer any *one* of the following (Short type) : 2

- (a) Explain two applications of remote sensing in forestry.
- (b) Explain two applications of remote sensing in marine studies.

12. Answer any *one* of the following (Broad type/Essay type) : 5

- (a) Briefly describe application of remote sensory and GIS in land-use planning.
- (b) Describe application of remote sensing and GIS in water resource management.

UNIT—V

13. Answer any *three* of the following as directed (Very short type) : $1 \times 3 = 3$

- (a) Name two types of distribution of data.
- (b) Name two types of sampling techniques.
- (c) Name two types of measurement of variation in Statistics.
- (d) When data is normally distributed, we conduct parameter/non-parametric tests.

(Choose any one)

(6)

14. Answer any *one* of the following (Short type) : 2

- (a) Define skewness and its significance.
- (b) When do we conduct correlation tests? Give examples.

15. Answer any *one* of the following (Broad type/Essay type) : 5

- (a) What is hypothesis testing? Explain its significance.
- (b) What is a sample? Describe the various types of sampling with the help of diagrams.

(7)

OPTION—II

(For Pass Course Students)

Course No. : EESSEC-301T

(Bamboo Cultivation, Utilization and Management)

PART—A

Answer any 15 questions, taking any *three* from each Unit : $1 \times 15 = 15$

UNIT—I

1. (a) What is bamboo?
- (b) What is the origin of word 'bamboo'?
- (c) What is mortality?
- (d) What are the different rhizome types of bamboo?

UNIT—II

2. (a) Which bamboo part has highest commercial value?
- (b) Name an economically important bamboo.
- (c) Name two traditionally important bamboo.
- (d) Name two bamboo-based fishing crafts.

(8)

UNIT—III

3. (a) What is bamboo propagation?
- (b) Name two types of bamboo propagation.
- (c) What is branch cutting?
- (d) The solid joint of each bamboo segment that produces roots is called ____.

UNIT—IV

4. (a) The edible part of bamboo is ____.
- (b) Name two edible bamboo species of North-East India.
- (c) What is the storage period for fresh bamboo shoots?
- (d) Name two indigenous communities who traditionally ferment bamboo shoots for food.

UNIT—V

5. (a) Name two forest bamboo species.
- (b) What is the general bamboo flowering intervals?
- (c) Define the term 'gregarious flowering'.
- (d) Name two important pests of Bamboo in South-East Asia.

(9)

PART—B

Answer any five questions, taking one from each Unit : 2×5=10

UNIT—I

6. (a) What are the culm characteristics of bamboo?
- (b) Distinguish between monopodial and sympodial bamboos with examples.

UNIT—II

7. (a) What are the most important traditional uses of bamboo?
- (b) Name some bamboo species that are widely used in paper industry.

UNIT—III

8. (a) What are the infrastructure facilities required for tissue culture?
- (b) Give a detailed account on polyhouse.

UNIT—IV

9. (a) Give some health benefits of bamboo shoots.
- (b) Write some traditional recepies of bamboo shoots.

(10)

UNIT—V

10. (a) What are the nutrient and fertilizers requirements in bamboo plantation management?
- (b) Explain harvesting strategies of forest bamboos.

PART—C

Answer any *five* questions, taking one from each Unit : $5 \times 5 = 25$

UNIT—I

11. (a) Briefly explain the distribution of bamboo in North-East India.
- (b) Explain culm sheath, culm emergence, culm elongation and culm production.

UNIT—II

12. (a) Give a note on bamboo utilization in incense and paper industry.
- (b) Give a detailed explanation on commercial utility of bamboo.

(11)

UNIT—III

13. (a) Explain the concept of tissue culture in bamboo.
- (b) Briefly explain the techniques of nursery management.

UNIT—IV

14. (a) Explain in detail about processing techniques of bamboo shoots.
- (b) Explain the preservation techniques of bamboo shoots.

UNIT—V

15. (a) Give a detailed account on control mechanism of bamboo diseases.
- (b) What are the management strategies adopted before and after gregarious flowering of bamboo?

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