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3(Sem 3)GGYM1

2015

GEOGRAPHY

(Major)

Paper : 3.1

(Soil and Biogeography)

Full Marks – 60

Time – Three hours

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

1. Answer the following by choosing the most appropriate option given against each question :

1×7=7

(a) What is the most important determinant of soil colour ?

(i) Parent material

(ii) Chemical modifications

(iii) Amount of humous

(iv) Amount of manure used

[Turn over

(b) The plants growing in water are called

- (i) hygrophytes
- (ii) hydrophytes
- (iii) xerophytes
- (iv) mesophytes

(c) Which among the following is a characteristic of evergreen forest ?

- (i) The trees never shed their leaves
- (ii) All trees do not shed leaves simultaneously
- (iii) When trees are leafless grasses remain green
- (iv) All of the above

(d) What is illuviation ?

- (i) frequent tilling of soils
- (ii) removal of soluble minerals from the top soil layers
- (iii) deposition of soluble minerals in the lower layers
- (iv) use of high doses of chemical fertilizers.

(e) Which one is supposed to be the most stable environment ?

- (i) Tropical rainforest
- (ii) Temperate grasslands
- (iii) Hilly regions
- (iv) Deep sea regions

(f) Which forms the first trophic level in any ecosystem ?

- (i) Herbivores
- (ii) Plants
- (iii) Carnivores
- (iv) Omnivores

(g) Which one of the following is a biodiversity hot spot ?

- (i) Tropical forest region
- (ii) Temperate forest region
- (iii) Equatorial forest region
- (iv) Polar region

2. Answer the following questions very briefly :

2×4=8

- (a) Define autotrophs.
- (b) What is calcification ?
- (c) What is ecological succession ?
- (d) What are the macro-nutrients in the ecosystem?

3. Write short notes on any *three* of the following :

5×3=15

- (a) Biomass
- (b) Soil texture
- (c) Biome
- (d) Histosols
- (e) Endangered species

4. (a) Describe various soil types and their associated properties. 10

Or

(b) Describe the soil forming processes highlighting the characteristics of soil profiles. 10

5. (a) What are the impacts of human activities on environment ? Illustrate with some local examples. 10

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Or

(b) Give a comprehensive idea on the distribution and characteristics of plants in the world. 10

6. (a) What is biosphere ? Describe the processes of interaction among various components in it. 3+7=10

Or

(b) Highlight the major conservational issues of the biodiversity in Assam. 10

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