



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 4th Semester Examination, 2020

BOTACOR09T-BOTANY (CC9)

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

1. Answer the following questions: 1×6 = 6
- (a) What is homeostasis?
 - (b) Define the term fundamental niche.
 - (c) What is water table?
 - (d) Write the trophic levels of detritus food chain.
 - (e) Define biome.
 - (f) Name two regions where temperate grassland is found.
2. Answer any **eight** questions from the following: 3×8 = 24
- (a) What is a soil profile? Give diagram. 2+1
 - (b) Write briefly on the climax concept. 3
 - (c) Write the advantages and disadvantages of natural forest fire in an ecosystem. 1 $\frac{1}{2}$ + 1 $\frac{1}{2}$
 - (d) Define symbiosis, commensalism and parasitism with an example for each. 3
 - (e) Write in brief the importance of ecological speciation. 3
 - (f) Differentiate between gross and net primary productivity. 3
 - (g) Write briefly on ecological pyramids. 3
 - (h) With the help of diagram explain the Shelford's law of tolerance. 3
 - (i) Write a very brief note on the continental drift. 3
 - (j) Comment on the role of microbes in N cycle. 3
 - (k) Characterise the tropical rain forest biome. 3
 - (l) Define any three different types of endemism, giving example for each. 3
3. Answer any **two** questions from the following: 5×2 = 10
- (a) Define population. Characterise the r & K selection life history strategies with examples. 1+4

- (b) What is plant succession? Write about the processes of primary succession. 1+4
- (c) With a schematic diagram, describe the phosphorus cycle. 2+3
- (d) Write a note on the Phytogeographical division of India (BSI 1996). 5

N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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