

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034
B.Sc. DEGREE EXAMINATION – PLANT BIOLOGY AND BIOTECHNOLOGY
FIFTH SEMESTER – APRIL 2010
PB 5410 - FORESTRY

Date & Time: 29/04/2010 / 9:00 - 12:00 Dept. No.

Max. : 100 Marks

PART A

I. Answer all the questions (20 marks)

I. Choose the correct answer (5 x 1 = 5)

1. According to Champion and Seth, how many forest groups are in India?
a) 18 b) 21 c) 16 d) 22
2. The physical, chemical and biological characters of the soil are included under:
a) Topographic factors b) Biotic factors c) Edaphic factors d) Climatic factors
3. Which rays promote the formation of anthocyanin pigments in leaves?
a. X-rays b) β -rays c) γ -rays d) UV-rays
4. Old crop removed by a single felling is called as _____.
a) clear felling system b) shelterwood systems
c) selection systems d) silvicultural systems
5. Planting of trees and around agricultural boundaries, and on marginal, private lands, in combination with agricultural crops is known as _____.
a. social forestry b) recreation forestry c) agro forestry d) economic forestry

II. State whether the following are True or False (5 x 1 = 5)

6. In India, the state Jammu and Kashmir alone has its own wildlife act.
7. Snow and frosts are more common in Alpine forest.
8. Scientifically afforestation or roadside strips was started by Odum.
9. Paddy is cultivated for social forestry.
10. Trees, grasses, shrubs planted in areas along streams or rivers are called *riparian buffers*.

III. Complete the following (5 x 1 = 5)

11. In mountain slopes, the transpired water vapour rises upto the cool region in the atmosphere and forms rains. This type of rain is called _____.
12. In reserved forests the state appoints an officer, normally the _____ of the concerned district as forest _____.
13. Snow falls on an area which is found at _____ m above the sea level.
14. _____ is the application of the principles of forest ecology.
15. _____ and _____ are used to control forest fire.

IV. Answer the following in about 50 words

(5 x 1 = 5)

16. Define the term saturation deficit.
17. Define protected forest.
18. What is Taungya method?
19. Write about the application of shelterwood systems.
20. Discuss the importance of best management practices.

PART B

Answer the following each in about 350 words. Draw necessary diagrams. (5 x 7= 35)

21. a. Discuss the terrestrial ecosystem with example.
Or
b. Give a brief account on forest polices and laws.
22. a. Explain the causes of deforestation.
Or
b. Write notes on social forestry.
23. a. Discuss any five structural features of plant community.
Or
b. Write about different Silvicultural systems.
24. a. Write short notes on the followings.
 - i. Evapotranspiration
 - ii. Radiation
 - iii. RainfallOr
b. Explain the techniques used in the forest management.
25. a. Discuss the effect of rainfall and humidity on plants.
Or
b. Write notes on different Silvicultural systems.

PART C

Answer **any three** of the following questions in about 1200 words. Draw necessary diagrams

(3 x 15 = 45)

26. Discuss the effect of afforestation on environment.
27. Write an essay on Indian forests.
28. Explain the different methods adopted to protect the forests against natural damaging agencies.
29. Write an essay on forest nurseries.
30. Discuss forest utilization.
