

Subject III

301-303

Part A

Give short answers

1. What do you mean by 'Bio-crude'?
2. Give to examples of liquid biofuels.
3. Define synthetic fuels.
4. Give two examples of non-edible oils that can be used as biofuel resource.
5. Define Gasification.
6. Define pyrolysis
7. What is biodiesel? Explain the synthesis of biodiesel and its properties
8. What is Euro III standard of fuel? What is biochemical conversion?
9. What is meant by water management?
10. What is 'Briquetting'?
11. What do you understand by 'Industrial fumance'?
12. What is molarity?
13. Write the unit of proteins.
14. What do you mean by enzyme?
15. What is genetic code?
16. Write the names of water-soluble vitamins.
17. What is nucleoside?

18. Who proposed the double helical model of DNA?
19. Who proposed the Lock and Key theory of mechanism of action of enzymes?
20. Name the two purine bases.
21. What is ampholyte?
22. What are accessory pigments?
23. What is the site of ATP Synthase?
24. What is phototropin?
25. Transpiration pull theory was given by
26. What is secondary metabolite?
27. What is myogenic heart?
28. Action potential What is haemopoiesis
29. What are nitrogenous wastes?
30. Which three main hormones are involved in the regulation of the renal function?

Part-B

1. Write a brief account on properties of coal.
2. Write a brief account resources, production and improvement of biofuels.
3. Write a comparison of synthetic fuels and biofuels.
4. Describe briefly about large scale production and conversion technology for bio-fuel resources
5. What is polymerization? Describe the formation processes of two types polymers with suitable examples.

6. What are disaccharides? Describe in detail about the structure and characters of two disaccharides
7. What are sphingolipids? Discuss in detail about the structure and properties of two sphingolipids.
8. Write a comprehensive note on Enzyme Kinetics.
9. Describe the mechanism of electron transport.
10. What is photoperiodism? Describe how photoperiodism affects the development in plants.
11. Write a detailed account a loading and unloading of phot- assimilates in plants.
12. Write a detailed account on central nervous system.
13. Write a detailed account on comparative anatomy of heart.
14. What is thermoregulation? Give the classification of animals on basis of thermal characteristics.
15. notes on the following:
16. Active transport
17. Defence mechanism of plant under salinity stress
18. Briefly describe the following:
 - a) Mechanism of Hormone action
 - b) BMR
19. Write notes on the following:
 - a. Ramachandran Plot
 - b. Tertiary structure of proteins with suitable examples.

20. Write notes on the following:

- a. Double helical structure of DNA
- b. Types and structures of RNA.

21. Write notes on the following:

- a. Two examples of vitamin B Complex
- b. Structure and functions of vitamin C

22. Write short notes on:

- a. Bio refineries
- b. Hybrid fuels.

23. Write short notes on:

- a) Carbon credits
- b) Carbon sequestration.

24. Write short notes on:

- a) Pyrolysis
- b) Air pollution control

25. Write short notes on:

- a) Biomass production
- b) Catalytic gasification

26. Write notes on the following:

- a) Henderson - Hassel Balch Equation
- b) The Law of mass action.

27. Explain the various methods of carbon sequestrations

28. What are carbon credits? Explain its types and importance.