

3. Discuss Plant based fuel production such as ethanol in detail?
4. Describe the alternative sources of energy production with reference to biogas production?

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(Printed Pages 4)

(20517)

Roll No.

B.Sc. (Bio-Tech.)-III Yr

NS-3477

B.Sc. Bio-Technology Examination, May 2017

Environmental Bio-Technology

(B-305)

(New)

Time : Three Hours]

[Maximum Marks : 75

Note : This paper is divided into **three** Sections A, B and C. Section-A Contains Very Short Answer Questions, Section-B Contains Short Answer Questions and Section-C contains Descriptive Answer Questions. Attempt **all** the sections as per instructions.

P.T.O.

Section-A

Note : This section contains five questions, all questions are **compulsory**. Answer each questions with in 50 words. Each question carries 3 marks. $5 \times 3 = 15$

1. Define Renewable resources and give two examples?
2. How biocatalysts are useful in remediation of Pollutants?
3. What are biofertilizers? How these are helpful in crop growth?
4. Write notes on conventional fertilizers.
5. What do you mean by SCP? Explain.

Section-B

Note : Attempt any **three** questions. Each questions carries 10 marks. $3 \times 10 = 30$

1. What do you understand by forest resources? Describe the methods of forest conservation?

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2. What are Methanogens? Discuss the classification of Methanogens?

3. Write notes on :

- (a) Superbug
- (b) Bioaccumulation

4. Discuss the rules regarding the use of GMO crops?

5. Why are biofertilizers considered to be an important alternative source of Plant nutrition? Explain.

Section-C

Note : Attempt any **two** questions. Each question carries 15 marks. $2 \times 15 = 30$

1. What do you mean by renewable energy resources? Discuss the use and over Exploitation of surface and ground water in India?
2. Describe the microbial bioremediation in detail and also discuss the factors that affect bioremediation?

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P.T.O.

(20518)

Roll No. 1593502688

B. Sc.(Biotech.)-III Year

NS-3477

B. Sc. Biotechnology Examination, May 2018

Environmental Biotechnology

(B-305)

(New)

Time : Three Hours]

[Maximum Marks : 75

Note: Attempt questions from all Sections as per instructions.

Section-A

(Very Short Answer Questions)

Answer all the *five* questions. Each question carries 3 marks. Very short answer is required not exceeding 50 words. $3 \times 5 = 15$

1. / What do you mean by conventional sources of energy?
2. / Write a note on bioaccumulation ?
3. / What are biofertilizers ? Discuss their role in Agriculture.

(2)

4. ✓ Discuss the cause and effect of deforestation.
5. ✓ Discuss fossil fuels as natural resources. How can they be conserved?

Section-B

(Short Answer Questions)

Answer any *three* questions. Each question carries 10 marks. $10 \times 3 = 30$

1. ✓ Give detailed account on phytoremediation.
2. ✓ What do you mean by renewable energy sources ? Describe the main reasons for water scarcity in India.
3. Write notes on the following :
 - (a) Biogas generation
 - (b) Biomineralization.
4. Give an account of non-renewable sources of energy.
5. ✓ Write notes on the following :
 - (a) Ex-situ bioremediation
 - (b) Municipal wastes treatment.

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(3)

Section-C

(Detailed Answer Questions)

Answer any *two* questions. Each question carries 15 marks. $15 \times 2 = 30$

1. ✓ What are natural resources ? Discuss the renewable energy resources in detail.
2. What are modern fuels ? Discuss the production of ethanol in detail.
3. Give a detailed account of bioremediation of polycyclic aromatic hydrocarbon.
4. ✓ Give a detailed account on the following :
 - (a) Biofertilizers
 - (b) Transgenic organism and their impact on environment.

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A

(Printed Pages 3)

(20620)

Roll No.40.....

B.Sc. (Bio-Tech.)-III Yr.

NS-3477(CV)

B.Sc. (Bio-Technology) IIIrd Year

Examination, June-2020

ENVIRONMENTAL BIO-TECHNOLOGY

(B-305)

(B.Sc. Biotech.)

Time : Two Hours]

[Maximum Marks : 75

Note : Attempt any **four** questions. **All** questions carry equal marks.

1. What is phytoremediation? Discuss in detail on the advantages of bioremediation and phytoremediation.
2. What are transgenic organisms? Discuss their environmental impact.
3. Describe various process through which toxic chemicals can be converted into non-toxic forms using micro-organisms.

P.T.O.

4. Write detailed notes on:

- (a) Biopesticide
- (b) Conversion of sugars to ethanol.

5. What do you understand by SCP? Describe briefly the production of SCP. Also discuss the advantages of producing SCP over traditional methods of producing proteins for food and feed.

6. Write the short notes on the following:

- (a) Biogas
- (b) Gasohol experiments
- (c) Biomineralization

7. Compare the renewable and non-renewable sources of energy. Discuss the environmental impact of burning of coal.

8. What are modern fuels? Discuss in detail their environmental impact.

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9. Write short note on the following:

- (a) Methanogenic bacteria
- (b) Biodiesel
- (c) Treatment of industrial effluents

10. What are biofertilizers? Discuss different available of biofertilizers used as a supplement to chemical fertilizers.

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