

Printed pages: 01

Sub Code: NAS 105

Paper ID:

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BTECH
(SEM I) THEORY EXAMINATION 2017-18
ENVIRONMENT & ECOLOGY

Time: 3 Hours

Total Marks: 70

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief. 2 x 10 = 20

- a. What are the basic components of ecosystem?
- b. What do you mean by hot spots? How many hot spots in India?
- c. Which science deals with the study of the individual organisms?
- d. Comment on GWP.
- e. Enlist nitrifying bacteria which operate nitrogen cycle
- f. What do you mean by bioindicators? Give some examples.
- g. What do you mean by biogas production?
- h. Why fluoride is known as two edges sword?
- i. How BOD differ from COD?
- j. What are the impacts of hydropower plants?

SECTION B

2. Attempt any three of the following: 10 x 3 = 30

- a) What is biogeochemical cycle? Discuss in brief steps of nitrogen cycle with neat and clean flow chart.
- b) Define EIA. Discuss all the sequential steps involved in EIA process.
- c) What do you mean by NGOs? Write up the details of the work taken up by any two Indian NGOs operated in India.
- d) Briefly discuss the salient features of Water (Prevention and Control of Pollution) Act 1974.
- e) What is ozone hole? What are the causes of ozone hole formation. Discuss the effects of ozone layer depletion and its remedial measures

SECTION B

3. Attempt any one of the following: 10 x 1 = 10

- a) What are ecological pyramids? Explain the different types of pyramids with examples.
- b) Briefly explain carbon cycle with its importance.

4. Attempt any one of the following: 10 x 1 = 10

- a) Discuss Nuclear energy with its merits and demerits
- b) Define 'In-situ and Ex-situ approaches of conservation of biodiversity.

5. Attempt any one of the following: 10 x 1 = 10

- a) What do you mean by sustainable development? Explain all the parameters of sustainable development.
- b) Discuss the causes and effects of urbanization.

6. Attempt any one of the following: 10 x 1 = 10

- a) Discuss the phenomenon of Green House Effect and Global warming with its effects.
- b) What is acid rain? What are the causes and effects of acid rain?

7. Attempt any one of the following: 10 x 1 = 10

- a) What is the role women education in environmental protection?
- b) Discuss in brief the salient features of the Air (Prevention and Control of Pollution) Act 1981.