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63/2 (SEM-3) BOT 306

2021

(held in 2022)

BOTANY

(Theory Paper)

Paper Code : BOT-306

**(Plant Diversity, Pharmacognosy and
Ethnobotany)**

Full Marks – 80

Time – Three hours

**The figures in the margin indicate full marks
for the questions.**

- 1. Choose the correct answer : 1×6=6**
- (i) Cartegena Biosafety Protocol on biosafety dealt with**
- (a) Living Modified Organisms (LMOs)**
 - (b) Agriculture resources**
 - (c) Renewable energy**
 - (d) Threatened species**

[Turn over

(ii) The nature of Traditional Knowledge is

(a) Dynamic

(b) Static

(c) Changing with time

(d) Evolving

(iii) Papain is an example of unorganized drugs which belongs to the class of

(a) Dried extracts

(b) Dried juices

(c) Oleoresins

(d) Dried latex

(iv) Who is the author of the book 'der Materia Medica' (1811) ?

(a) J. A. Schmidt

(b) Hippocrates

(c) Dioscorides

(d) A. Ceasalpino

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(v) The active chemical drug camptothecin is obtained from

(a) *Datura stramonium*

(b) *Atropa belladonna*

(c) *Nothapodytes nimoniana*

(d) *Rauvolfia serpentina*

(vi) Which of the following ecosystem have maximum biodiversity ?

(a) Mangroves

(b) Desert

(c) Coral reef

(d) Rain forest.

2. Answer the following short questions : 2×5=10

(a) Differentiate between Pharmacognosy and Pharmacology.

(b) Ethnobotany is a multidisciplinary approach. Justify the statement.

(c) What is TKDL? Mention its importance.

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[Turn over

(d) Define ecosystem diversity. State the importance of it.

(e) Define bio piracy. Give a specific example.

3. Write an explanatory notes any *six* of the following :
 $5 \times 6 = 30$

(a) Red List categories and Criteria

(b) Objectives of Convention on Biological Diversity

(c) Agrodiversity

(d) Monotypic diversity

(e) Endemic plants

(f) Criteria of Hot spots region

(g) Adulteration of crude drugs

(h) Impact of Green revolution.

4. Answer any *two* of the following questions :
 $10 \times 2 = 20$

(a) Define plant diversity. How plant diversity can be measured ? Elaborate the different types of diversity citing examples.
 $2+3+5=10$

(b) What is GMO's ? Discuss the biosafety regulations on GMO's you have studied. Add advantages and risks associated with GMO's.
 $2+4+4=10$

(c) Define ethnobotany. Explain in detail methods used in ethnobotanical study. $2+8=10$

5. Answer any *one* of the following questions :
 $14 \times 1 = 14$

(a) Define crude drugs. Discuss the classifications of crude drugs. Write different parameters adopted for quality control of crude drugs.
 $2+8+4=14$

(b) What are biogeographic zones ? Briefly discuss the different biogeographic zone in India. Elaborate the importance of biogeographic zones.
 $2+8+4=14$