

T. Y. BSc
Sem VI
Beem
Apr 12 2019
Marks - 100
25/04/19

Time – 3 Hours

- N.B.
1. All questions are compulsory.
 2. Draw neat labelled diagrams wherever necessary
 3. All questions carry equal marks.

Q.1 Attempt any two

20

- a Describe the Maxam and Gilbert's method of DNA sequencing
- b Describe the steps involved in DNA amplification by PCR technique.
- c What is DNA bar coding? Describe the use of rbcL gene sequence in DNA bar coding.
- d Write a note on "Present status of DNA bar coding in plants."

Q.2 Attempt any two

20

- a What is phytogeography? Discuss the phytogeographical regions of India (Any Three).
- b Give an account on evolution of biodiversity with suitable example of an evolutionary tree
- c What is biodiversity? State the reasons causing loss of biodiversity.
- d What is genetic diversity ? Discuss the molecular methods used for assessing genetic diversity.

Q.3 Attempt any two

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- a Explain the extraction process of oil from *Citronella*. Add a note on uses of the same.
- b What are fatty oils ? Write the botanical name, plant part used, geographical location, extraction procedure and uses of linseed oil.
- c Define vegetable fat. Write the botanical name, plant part used, geographical location, extraction procedure and uses of coconut oil.
- d Give the botanical name, plant part used, geographical location, extraction procedure and uses of peanut oil.

Q.4 Attempt any two

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- a With reference to hot air drying, discuss the technique of drying.
- b Discuss the technique of canning for food preservation.
- c Discuss the use of antioxidants as preservatives.
- d With reference to jams, explain how sugar concentrates are made.

Q.5 Write short note on any four of the following :

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- a Advantages of DNA bar coding in plants
- b Importance of biodiversity.
- c Ex-situ conservation
- d Uses of sandal wood oil
- e Extraction procedure of Cotton seed oil.
- f Fruit leather