

JSS COLLEGE FOR ARTS, COMMERCE AND SCIENCE
(AUTONOMOUS)OOTY ROAD, MYSURU- 25
POST GRADUATE DEPARTMENT OF BOTANY

M.Sc., Degree----- Semester Examination May/June-20--

Course/Paper:

Course/Paper Code.....

Time: 3 Hrs.

Max Marks: 100

Instructions: 1) Answer all questions.

2) Draw neat and labelled diagrams wherever necessary.

BOTANY SKILL ENHANCEMENT COURSE

SCHEME OF EXAMINATION/ASSESSMENT THEORY/ PRACTICAL EXAM

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|---------------------------------|----|
| • FIELD VISIT/ WORK | 50 |
| • VIVA VOCE EXAMINATION | 30 |
| • PRACTICAL SPECIMEN SUBMISSION | 20 |

Organic Farming

(Credits: Theory 2, Practical Training/ Field visit ·4)

THEORY (Lectures: 30)

Unit 1: Organic fanning - Green manuring and organic fertilizers. Recycling of bio· degradable municipal, agricultural and Industrial wastes used for organic farming. Choice of crops and varieties in organic farming – crop rotations – need and benefits – multiple cropping.

Unit 2: Organic Certification– Certification Process, Product Labeling; Regulatory Mechanisms for Organic Certification in India. National Standards for Organic Production. Initiatives taken by the central and state governments, NGOs and other organizations for promotion of organic agriculture in India.

Unit 3: Organic Manures– Types and advantages of organic manures, Humification. Composting– types and factors influencing composting; Vermi-composting and Benefits. Bio-compost – Preparation, application and storage using organic waste materials.

Unit 4: Botanicals- Preparation of green pesticides (panchagavya, beezamrutam, jeevamrutam, ghanajeevamrutam, dravajeevamrutam)- composition and preparation, pyrethrum, neem seed kernel extract, neem seed powder, soluble neem formulations, neem oil.

Practical/ Training/Field visit Based on Theory paper

Suggested Readings

1. Arun K. Sharma. 2002. A Hand book of organic farming. Agrobios, India. 627p.
2. Palaniappan, S.P and Annadurai, K.1999. Organic farming-Theory and Practice. Scientific publishers, Jodhpur, India. 257p.
3. Mukund Joshi and Prabhakarasetty, T.K. 2006. Sustainability through organic farming. Kalyani publishers, New Delhi. 349p.
4. Balasubramanian, R., Balakishnan, K and Siva Subramanian, K. 2013. Principles and practices of organic farming. Satish Serial Publishing House. 453p
5. Tarafdar, J.C., Tripathi, K.P and Mahesh Kumar, 2009. Organic agriculture. Scientific Publishers, India. 369p.