



## UNIVERSITY OF JAMMU

### NOTIFICATION

In partial Modification to this office Notification No.F.Acd./II/16/8106-49 dated 02.08.2016, it is hereby notified for the information of all concerned that the Vice-Chancellor, in anticipation of the approval of the Academic Council, is pleased to authorize the replacement of scheme of practical papers of **Course No UBOPC102 and UBOPC202 of Botany 1<sup>st</sup> and 2<sup>nd</sup> semester as given in annexure** under Choice Based Credit System at undergraduate level for the examinations to be held in years as under:-

<u>Subject</u>	<u>Semester</u>	<u>For the Examinations to be held in the years</u>
B.Sc(Botany)	Semester-I	Dec. 2016, 2017 and 2018
	Semester-III	May 2017, 2018 and 2019

Sd/-  
**Dean Academic Affairs**

No. F.Acd/II/16/11383 - 425  
Dated: 05/10/2016

Copy for information and necessary action to:

1. Special Secretary to the Vice-Chancellor
2. Sr. P.A. to the Dean Academic Affairs
3. Sr. P.A. to the Registrar / Controller of Examinations
4. Dean, Faculty of Life Sciences
5. Convener, Board of Studies in Botany
6. All members of the Board of Studies
7. Principals of concerned colleges
8. C.A. to Controller of Examinations
9. Asst. Registrar (Conf./Exams. U.G/ Inf./Pub.)
10. Website Office
11. S.O (Confidential)

*[Signature]*  
4/10/16  
**Assistant Registrar(Academic)**

*[Signature]*  
4/10/16

*[Signature]*  
4/10/16

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Annexure  
Annexure

**BOTANY**  
**(Semester-I)**

(For examinations to be held in the years 2016, 2017, 2018)

**Course No: UBOPC102**

**Title: Diversity of Microbes & Cryptogams  
(Practical)**

**Duration of Exam: 3hrs.**  
**Credits: 02**

**Maximum Marks: 50**  
**External Examination: 25 Marks**  
**Internal Assessment: 25 Marks**

**Suggested Laboratory Exercises**

1. Study of the genera included under algae and fungi.
2. Study of morphology, reproductive structures and anatomy of the examples cited in theory under Bryophyta and Pteridophyta.
3. Observation of disease symptoms in hosts infected by fungi, viruses and mycoplasma. Section cutting of diseased materials and identification of the pathogens as per the theory syllabus.
4. Gram staining of bacteria.
5. Study of crustose, foliose and other types of lichen thalli.

**Note for distribution of 50 Marks in Practical Examination:**

**I. Internal Assessment**

- |  |          |
|--|----------|
| 1. Day to Day performance in the laboratory: | 10 Marks |
| 2. Class Test:                               | 5 Marks  |
| 3. Regularity of Attendance:                 | 5 Marks  |
| 4. Viva-voce                                 | 5 Marks  |

**II. External Examination**

- |              |   |          |
|--------------|---|----------|
| 1. Test      | : | 20 Marks |
| 2. Viva-voce | : | 5 Marks  |



*Geeta Dumbal*

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3 Annexure

## BOTANY

(Semester-II)

(For examinations to be held in the years 2016, 2017, 2018)

Course No: UBOPC202

Title: Characteristics and Systematics of seed plants.  
(Practical)

Duration of Exam: 3hrs

Maximum Marks: 50

Credits: 02

External Examination: 25 Marks

Internal Assessment: 25 Marks

### ANGIOSPERMS

Locally available genera/species of following families should be included. This list is only indicative. Teachers may select plants available in their locality.

1. Ranunculaceae: *Ranunculus*, *Delphinium*
2. Brassicaceae: *Brassica*, *Alyssum*, *Iberis*, *Coronopus*
3. Malvaceae: *Hibiscus*, *Abutilon*
4. Asteraceae: *Tagetes*, *Ageratum*
5. Fabaceae:  
Faboideae: *Lathyrus*, *Cajanus*, *Melilotus*, *Trigonella*,  
Caesalpinioideae: *Cassia*, *Caesalpinia*,  
Mimosoideae: *Prosopis*, *Mimosa*, *Acacia*.
6. Apiaceae: *Coriandrum*, *Foeniculum*, *Anethum*
7. Acanthaceae: *Adhatoda*, *Peristrophe*
8. Apocynaceae: *Vinca*, *Thevetia*, *Nerium*
9. Asclepiadiaceae: *Calotropis*
10. Solanaceae: *Solanum*, *Withania*, *Datura*, *Petunia*
11. Euphorbiaceae: *Euphorbia*, *Phyllanthus*
12. Lamiaceae: *Ocimum*, *Salvia*
13. Chenopodiaceae: *Chenopodium*, *Beta*
14. Liliaceae: *Asphodelus*, *Asparagus*, *Allium*
15. Poaceae: *Zea mays*, *Triticum aestivum*, *Oryza sativa*

### GYMNOSPERMS

#### CYCAS

- i. Habit, armour of leaf bases on the stem (if specimen is not available show photograph). very young (circinate venation) and old foliage leaves, scale leaves, bulbils, male cone (specimen), microsporophyll, megasporophyll, mature seed.

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Preeta Dumbhal

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Answer

- ii. Study through permanent slides-normal root (T.S), stem (T.S) (if sections are not available show photographs) and ovule (L.S.)
- iii. Study through hand sections or dissections- coralloid root (T.S), rachis (T.S), leaflet (V. S.) and Pollen grains (W.M).

### **PINUS**

1. Habit, long and dwarf shoots showing cataphylls and scale leaves, T.S. Wood showing growth rings, male cones of 1<sup>st</sup> year, 2<sup>nd</sup> year and 3<sup>rd</sup> year, female cones, winged seeds.
2. Study through permanent slides-root (T.S), female cone (L.S), ovule (L.S) and embryo (WM) showing polycotyledonous conditions.
3. Study through hand sections or dissections-young stem (T.S), old stem (Wood) (T.L.S and R.L.S), needle (T.S), male cone (L.S and T.S) and Pollen grains (W.M.).

### **EPHEDRA**

1. Habit and structure of whole male and female cones
2. Permanent slides-female cone (L.S)
3. Hand sections, dissections-node (L.S), internode (T.S), macerated stem to see vessel structure, epidermal peel mount of vegetative parts to study stomata: male cone (T.S and L.S) and pollen grains (W.M.)

In addition to laboratory exercises, study of plant diversity in nature is required, for which a field trip should be organized.

### **Note for distribution of 50Marks in Practical Examination:**

#### **I. Internal Assessment**

- |  |          |
|--|----------|
| 1. Day to Day performance in the laboratory: | 10 Marks |
| 2. Class Test:                               | 5 Marks  |
| 3. Regularity of Attendance:                 | 5 Marks  |
| 4. Viva-voce                                 | 5 Marks  |

#### **II. External Examination**

- |              |          |
|--------------|----------|
| 1. Test:     | 20 Marks |
| 2. Viva-voce | 5 Marks  |

*Greta Dumbaj*