

Model Question Paper

UNIVERSITY OF KERALA

**Fifth Semester B.Sc. Degree Programme in Botany (CBSS)
Practical Examination January, 2018**

**Botany Core Practical I - Course Code: BO 1544
Angiosperm Anatomy, Reproductive Botany and Palynology,
Methodology and Perspectives in Plant Sciences,**

Time: 3 Hours

Max. Marks: 80

- 1** Make suitable micro preparation of **A**, identify giving reasons and describe its structure with the help of labelled diagrams. Leave the preparation for valuation.
(Preparation – 4, Diagram – 4, Identification -1, Reasons- 3) **12 marks**
- 2** Construct a frequency table (Discrete / Continuous) from the given data **B**
(Frequency table – 6) **6 marks**
- 3** Construct histogram/bar diagram from the data **/or /** Work out the problem **C**
(Histogram/Bar diagram – 6 **/or /** For problem, Calculation- 4, Result - 2) **6 marks**
- 4** Identify the instruments/separation method **D**. Comment on its aim and working/procedure.
(Identification – 1, Aim – 1, Working / Procedure – 3) **1 x 5 = 5 marks**
- 5** Comment on **E and F**
(Major group – 1, Identification – 1,) **2 x 2 = 4 marks**
- 6** Make suitable micro preparations of **G**, identify giving reasons and describe its structure with the help of labelled diagrams. Leave the preparation for valuation.
(Preparation – 4, Diagram – 4, Reasons- 3, Identification -1) **12 marks**
- 7** Identify the type of stomata in specimen **H**
(Identification- 1, Diagram – 2, Reason - 2) **5 marks**
- 8** Identify and describe the type of cellular inclusion in specimen **I**
(Identification- 1, Description-2, Diagram - 2) **5 marks**
- 9** Identify **J** and draw a neat labelled diagram
(Identification- 1, Diagram – 4) **5 marks**
- 10** Record (Content – 15, Neatness - 5) **20 marks**

Botany Core - Course Code: BO 1544

KEY TO SPECIMENS – PRACTICAL I

- 1 **A** Primary/Normal Secondary Root or Stem
(Avoid Primary Dicot Root)
- 2 **B** Numerical data
- 3 **C** Frequency table / Data (Mean, Median, Mode only)
- 4 **D** pH meter/Colorimeter/Centrifuge/Spectrophotometer/
Paper chromatography/TLC preparation
- 5 **E & F** Fixative, Stain, Mounting medium, Dissection/Compound Microscope,
Microtome and Camera lucida mentioned in the syllabus
- 6 **G** Stem with anomalous secondary structure (*Bignonia / Boerhaavia / Dracaena*)
- 7 **H** Any type of stomata mentioned in the syllabus
- 8 **I** Starch grain / Raphide /Cystolith / Aleurone grain etc mentioned in the
syllabus
- 9 **J** Anther T.S. / Dicot embryo L.S. /Monocot embryo L.S.

Model Question Paper

UNIVERSITY OF KERALA

**Fifth Semester B.Sc. Degree Programme in Botany (CBSS) Practical
Examination January, 2018**

Botany Core Practical II - Course Code: BO 1545

**Microbiology, Phycology, Mycology, Lichenology, Plant Pathology, Bryology,
Pteridology, Gymnosperms and Paleobotany**

Time: 3 Hours

Max. Marks: 80

- 1** Make suitable micro preparations to bring out the structure of **A, B, C** and **D**. Draw a cellular diagram of each and label the parts. Identify giving reasons and leave the preparation for evaluation.
(Preparation – 2, Identification -1, Reasons- 2, Labelled diagram-2) 4 x 7 = **28** marks
- 2** Identify any two algal specimens from the mixture **E**, giving reasons
(Identification – 1, Reasons -1, Diagram - 1) 2 x 3 = **6** marks
- 3** Perform the Gram staining of bacterial solution **F** and show the results. Write the procedure
(Procedure - 3, Result- 1) **4** marks
- 4** Identify the disease in plant specimen **G** and give the name of the causative pathogen along with the important symptoms associated with it
(Disease- 1, Pathogen -1, Symptoms -2) **4** marks
- 5** Spot at sight **H, I, J, K, L** and **M**
(Genus name- 1, Part of the plant - 1, Major Group- 1) 3 x 6 = **18** marks
- 6** **Record to** be submitted for valuation
(Content – 15, Neatness - 5) **20** marks

KEY TO SPECIMENS – PRACTICAL II

Course Code: BO 1545

- 1** **A** Fungus mentioned in the syllabus
 B Bryophyte mentioned in the syllabus
 C Pteridophyte mentioned in the syllabus
 D Gymnosperm mentioned in the syllabus

- 2** **E** Algal mixture (Mixture of different algae prescribed in the syllabus containing at least four members. *Chlorella* and *Pinnularia* not to be included)

- 3** **F** Bacterial solution

- 4** **G** Plant disease mentioned in the syllabus

- 5** **H** Alga (Macroscopic)
 I Fossil form mentioned in the syllabus (Photograph / Slide)
 J Lichen / Fungus (Macro / Micro)
 K Bryophyte
 L Pteridophyte
 M Gymnosperm

