Answer the following questions.

Q1. Describe the structure, biogenesis and functions of cell wall.

Q2. Write about the ion carriers, channels and pumps in plasma membrane.

Q3. Describe golgi apparatus and its functions.

Q4. Discuss the role of cyclins and cyclin-dependent kinases in control mechanisms of cell cycle.

Q5 Write short notes on the following:
   (i) Aneuploids
   (ii) Euploids
M. Sc. Botany – Second Semester
Course PG 202: Morphology & Taxonomy of Angiosperms

Answer the following questions.

Q1. Explain the types of placentation and their origin.

Q2. What are the salient features of International Code of Botanical Nomenclature?

Q3. Discuss the taxonomic evidence in relation to cytology and phytochemistry.

Q4. What is the importance of herbarium and floras in taxonomy?

Q5. Discuss the relative merits and demerits of major systems of plant classification.

M. Sc. Botany – Second Semester
Course PG 201: Plant Development & Reproduction

Answer the following questions.

Q1. Explain the theories about organization of shoot apical meristem (SAM).

Q2. What are various root–microbe interactions?

Q3. Describe the process of microsporogenesis.

Q4. Write short notes on the following:
   (i) Male sterility in plants.
   (ii) Organization of embryo sac.

Q5. Write short notes on the following:
   (i) Gametophytic selfincompatibility.
   (ii) Apomixis.
Course PG 203: Utilization & Conservation of Plant Resources

Answer the following questions.
Q1. Write a detailed account on major biomes of the world.
Q2. Describe the different threats to quality & quantity of natural resources?
Q3. What are *in-situ* and *ex-situ* conservation strategies? Discuss with suitable examples.
Q4. Write short notes on the following:
   (i) Bioremediation
   (ii) Global warming
Q.5 Discuss the application of remote sensing in ecology & forestry.