DII-003-014403 Seat No. _____

M. Sc. (Botany) (Sem. IV) (CBCS) Examination

May / June – 2015

BOT-419 : Plant Biotechnology & Genetic Engineering

(New Course)

Faculty Code : 003

Subject Code : 014403

Time : Hours] [Total Marks : **70**

Instruction: All questions are compulsory and carry equal marks.

Q: 1 Explain **any seven** of the followings: (14)

a. GMO with suitable plant example
b. RELP
c. Basic principle of affinity chromatography
d. Plantibody
e. Write applications of gel filtration chromatography technique
f. PCR based marker techniques
g. Protein salting out with Ammonium sulphate
h. Principle of Size exclusive chromatography
i. Biological Control
j. Anion and cation exchanger

Q;2 Answer any ***two*** of the following:

a. Write basic techniques of gene cloning in plants
b. Screening techniques for GM0
c. *Agrobacterium* mediated gene transfer in plants

Q:3 Answer the following:

a. Explain Protein isolation techniques
b. 2-D electrophoresis

OR

Q:3 Explain the following:

a. Ion-exchange chromatography for protein separation.
b. PAGE

Q:4. Answer the followings:

a. Write importance of ELISA techniques in detection of plant metabolites
b. Explain principle and applications of RIA

Q:5 Write notes on any two:

a. AFLP
b. RAPD
c. ISSR
d. PCR
