B.Sc.(Ag.) Honours Semester– VII Examination, 2014

Course No. : AGR –412 (Farming System and Sustainable Agriculture)

(Old Syllabus)

Signature of Centre Superintendent

Roll No.: (in figure)_____ (in words)_____

Student Index No._____ Regn. No._____ of_____

Time : Two hours **Full marks : 50**

Questions are of value as indicated in the margin

Part–I

(Objective and Short Answer Type)
(Use only ball point pen)

Time : 30 minutes **Full marks : 20**

Note : 1. Answer in question paper itself.
2. Striking, rewriting and overwriting are not allowed in the objective type questions.

1. Write True (T) or False (F) in respect of the following statements (*any eight*): 0.5×8=4

i) Gypsum can be used as preservative in FYM. ☐
ii) If the FYM is partially rotten, it can be applied just before sowing. ☐
iii) Composting is a biological process. ☐
iv) Green manuring can not be used for ameliorating problem soil. ☐
v) *Sesbania rostrata* produces nodules only in stem. ☐
vi) In arid lands tied ridging is effective. ☐
vii) Mulch of plant material moderates temperature. ☐
viii) *Khadin* is a popular method of water harvesting practiced in india. ☐
ix) Natural resource base is the capital for development. ☐
x) Horticulture based farming system is predominant in Western Himalayan region. ☐

2. Fill in the blanks with most appropriate words (*any eight*): 1×8=8

i) LEISA stands for _____.
ii) For reducing loss of time and soil moisture in sequential cropping, _____ cropping is suggested.
iii) Two most important components of farming system are _____ and _____.
iv) Growing of crops in a systematic arrangement of strips across a field is called _____
v) _____ crops are host crops sown to attract insects but harvested before insects hatch.
vi) _____ is the practice of ploughing undecomposed green plant tissues into the soil.
vii) The effective nodules found in *Rhizobium* contains a pigment called _____.
viii) Two important earthworm species used in vermicompost making are _____ and _____.
ix) Two important species of windbreaks are _____ and _____.
x) The value of SYI ranges between _____ to _____.

3. Write short notes on (*any four*): 2×4=8

a) Biofertilizers

b) Green manuring

c) Shifting cultivation

d) On farm inputs

e) Shelter belt

f) Indigenous technical knowledge

B.Sc.(Ag.) Honours Semester–VII Examination, 2014

Course No. : AGR –412 (Farming System and Sustainable Agriculture)

(Old Syllabus)

Part–II

(Descriptive Type)

Time : 1.5 Hours **Full marks : 30**

Questions are of value as indicated in the margin.

Answer ***any three*** questions from the following.

4. Classify farming systems prevalent in India. Define IFS. Write down the advantages of Integrated Farming System (IFS) in details. Write characteristics of irrigated farming systems. 3+2+2+3=10

5. What do you mean by sustainable agriculture. What are the importance of sustainable agriculture? What are the major issues of sustainability of intensive cropping system in India and how those can be addressed? 2+2+6=10

6. Explain in details about one of the models of integrated farming systems for rainfed ecosystem. Enlist the role of IFS in organic farming. What do you mean by INM. Enumerate the important LISA techniques for integrated nutrient management. 4+3+1+2=10

7. Enlist the LEISA techniques related to soil and water conservation. Briefly discuss two important LISA techniques for plant protection. What are the advantages of the LEISA techniques over the conventional techniques. 2+4+4=10

8. Write short notes on: (***any four***) 4×2.5=10
   a) Indicators of sustainable agriculture
   b) Agro-biodiversity
   c) Intercropping
   d) Farming system for coastal areas
   e) Ethnoveterinary
   f) Bio-intensive gardening

9. Write down in brief about the Rice-Fish farming system with special reference to production technology, significance and constraints. 4+3+3=10
