JHARKHAND Rai University RANCHI ACCREDITED BY NAAC

End Semester/Reappear (Semester V) Examination December 2022

Programme: B. Sc. (Hons.) Agriculture **Full Marks: 50**
Course: Geoinformatics & Nano-technology- Precision Farming **Time: 2 Hrs.**
Course Code: 13A.316
Enrollment No: _____

Section I

1. **Short Answer type questions. Answer any four.** **4 x 5 = 20**
   a. List the steps in technology development and strategies for precision farming.
   b. Define GPS and explain in brief the components of GPS.
   c. How can we identify different crops which are cultivated at the same time in a particular region from satellite images?
   d. List the agricultural applications of remote sensing. Explain in detail.
   e. Define Agro-Geoinformatics.
   f. Provide a quick summary of the crop simulation model.

Section II

Long answer type questions. Answer any two. **2 x 15 = 30**

2. Explain the different steps involved in precision farming in detail? What are the advantages of precision farming to farming?
3. Define geographic information system. Write the five major components and three main sub systems of geographic information system.
4. a. Elaborate the role of nanotechnology in agriculture and explain in brief.
   b. Write some potential applications of nano-sensors and explain.
5. Explain the role of STCR in crop modelling.

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