ST. JOSEPH’S COLLEGE FOR WOMEN (AUTONOMOUS) VISAKHAPATNAM

B.SC.(HONORS) AGRICULTURE AND RURAL DEVELOPMENT WITH SINGLE MAJOR

I SEMESTER **SKILL ENHANCEMENT SYLLABUS** Time: 2hrs/week

AGRD102(2)  **AGRICULTURE INFORMATICS** Marks:50

## w.e.f AK 2023-2024 (Admitted batch) PRACTICAL SYLLABUS

**OBJECTIVES:**

* To create, capture, access and disseminate information to achieve a more productive and sustainable.
* To use of agricultural resources.
* To encourage non-profit, research professionals and business professionals.

**Course Outcomes:**

**CO1:** Explain Windows explorer- Creating folder - Copy and paste functions - Control panel Notepad -WordPad etc.

**CO2:** Summarize MS word - Creating a document, saving and editing

**CO3:** Discuss Use of options from tool bars – Format - Insert and tools (Spelling and Grammar) - Alignment of paragraphs and text.

**CO4:** Explain to Creating a table - Merging of cells - columns and row width - Formats etc.

**UNIT – I: (4 Hrs.)**

1. Introduction to computers- Advantages- Disadvantages- Applications - Anatomy of Computers- Input / output devices -Memory Concepts - Units of Memory - RAM – ROM – PROM – EPROM - EAPROM - Cache Memory.
2. Operating system - Definition and types - WINDOWS OS – Features – Desktop – Icons etc.
3. Applications of MS-Office - MS- Word - Creating - Editing and formatting a document. 4. MS Word - Features of good word processor - Mail merge – Drop cap- Auto text.Track changes – Equation editor etc.

**UNIT – II: (4 Hrs.)**

1. MS- Excel - Data presentation, Tabulation – Merging of cells and graph creation - Mathematical expressions.
2. MS- Excel - Data analysis tool pack – Pivot table and graph etc.
3. MS Access – Database - concepts and types - creating database - Uses of DBMS in agriculture.

**UNIT – III: (4 Hrs.)**

1. MS Access - Objects of data base – Types of fields etc.
2. Internet and World Wide Web (WWW) – Concepts - Components and creation of web.
3. HTML - XML coding.

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**UNIT – IV: (4 Hrs.)**

1. e-Agriculture - Concepts - Design and development - Application of innovative ways to use information and communication technologies (IT) in Agriculture.
2. ICT for Data Collection - Formation of development programmes - Monitoring and evaluation of Programmes - Computer Models in Agriculture statistical weather analysis and crop simulation models – Concepts – Structure - Inputsoutputs files – Limitation - Advantages and application of models for understanding plant processes – Sensitivity –Verification - Calibration and validation.
3. IT application for computation of water and nutrient requirement of crops - Computer controlled devices (automated systems) for Agri-input management - Smartphone mobile apps in Agriculture for farm advises - Market price - Postharvest management etc.

**UNIT – V: (4 Hrs.)**

1. Geospatial technology – Concepts – Techniques - Components and uses for generating valuable agri-information.
2. Decision support systems – Taxonomy – Components – Framework - Classification and applications in Agriculture - DSS - Agriculture Information/Expert System - Soil Information Systems etc for supporting Farm decisions.
3. Preparation of contingent crop-Planning and crop calendars using IT tools.

**REFERENCES:**

1. John Walkenbach, Herb Tyson, Michael R. Groh, Faithe Wempen, Microsoft Office 2010 Bible.

2. Bangia,Learning Ms Office 2010.

3. Prof. Satish Jain and M. Geetha, MS-Office 2010 Training Guide.

4. Johnson, Microsoft Office 2010......on Demand.

5. Kate Shoup, Microsoft Office 2010.

6. Melanie Gass, It's All about You! Office 2010.

7. Nancy Conner and Matthew MacDonald, Office 2010: The Missing Manual.

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