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**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND  
TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2024/2025**

**SEMESTER 2 EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE IN  
MEDICINAL PHYTOCHEMISTRY**

**TPS 3114: PLANT TAXONOMY**

**DATE: DECEMBER 2024**

**TIME: 3 HOURS**

**INSTRUCTIONS: ANSWER ANY FOUR QUESTIONS. EACH QUESTION IS 25 MARKS**

1. Evaluate the role of plant taxonomy in supporting sustainable development (25 Marks)
2. Analyze the significance of morphological and molecular characters in plant classification and propose a comprehensive framework for integrating these characters to improve accuracy in modern taxonomy. (25 Marks)
3. Evaluate the roles of herbaria and botanical gardens in advancement of plant taxonomy and conservation (25 Marks)
4. Discuss the impact of major scientific discoveries and technological advancement on the historical progression of taxonomy from the pre-Linnaean era to modern-day classification systems. (25 Marks)
5. Discuss the practical application of palynology, cytology and enzyme electrophoresis in taxonomic studies (25 Marks)
6. The future of taxonomy lies in the ability of its proponents to recognize and embrace emerging environmental challenges and technological opportunities. Discuss. (25 Marks)