KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

INSTITUTIONAL BASED PROGRAMME (DECEMBER SESSION)

EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE

KST 538: HOST PLANT RESISTANCE

DATE: WEDNESDAY, 27TH APRIL 2011 **TIME: 9.00 A.M. - 12.00 P.M.**

INSTRUCTIONS: Answer **any four** questions.

1. (a) Explain the main features of antixenosis and how cultivars could be evaluated for this trait. (15 marks)

   (b) Differentiate "pseudo-resistance from tolerance" (10 marks)

2. Transgenic plant technology will revolutionize the ability to develop host plant resistance. Discuss. (25 marks)

3. Host plant resistance is said to be relative. Discuss. (25 marks)

4. You have four different genes for resistance, they are all valuable and generally useful. However, in a conventional breeding program the genes would be overcome by changes in the pest population over a relatively short period of time. Discuss five strategies that can be used in releasing these resistance genes using a self-pollinated crop as a model. (25 marks)

5. Successful development of host plant resistance to insects and diseases requires team research. Who should be on this team as primary and secondary members. (25 marks)

****