UNIVERSITY COLLEGE LONDON

University of London

EXAMINATION FOR INTERNAL STUDENTS

For The Following Qualification:-

M.Sc.

ESGL1: Lighting Fundamentals

COURSE CODE   : **ENVSGL01**

DATE   : **02-MAY-06**

TIME   : **14.30**

TIME ALLOWED   : **2 Hours**

TURN OVER

UNIVERSITY OF LONDON

MSc DEGREE IN BUILT ENVIRONMENT 2006
for Internal Students of University College London

ESGL1: Lighting fundamentals (resit)

Answer **TWO** questions.

All questions carry equal marks. Use annotated sketches.

1.   Define maintained illuminance on a reference plane within an interior and show
      how it may be calculated using the 'lumen' method. Pay particular attention to a
      description of the components of maintenance factor.

2.   The downlighter is a versatile luminaire suitable for many applications. Describe
      three examples of the use of the downlighter and explain why it is an
      appropriate choice for the application.

      What are the design featurers of a downlighter that need to be considered when
      drawing up a technical specification? In your answer, include reference to
      lighting performance, glare control and appearance.

3.   Define the following terms: luminous flux, illuminance, luminous intensity and
      luminance. How are they related?

      You have completed the design of the lighting installation for a retail unit in a
      shopping mall. How would you use the terms above in your description of the
      performance of the installation to the client?

4.   Discuss the major changes that might occur in the human eye with increasing
      age. What implications might some of these changes have on lighting design?

                                                              END OF PAPER