

UNIVERSITY COLLEGE LONDON

University of London

EXAMINATION FOR INTERNAL STUDENTS

For The Following Qualifications:–

Grad Dip M.Sc.

ESGL1: Lighting Fundamentals

COURSE CODE : ENVSGLO1

DATE : 04–MAY–04

TIME : 14.30

TIME ALLOWED : 2 Hours

UNIVERSITY OF LONDON

MSc DEGREE IN BUILT ENVIRONMENT 2004
for Internal Students of University College London

ESGL1: Lighting fundamentals

Answer **TWO** questions.

All questions carry equal marks. Use annotated sketches.

1. Analyse the features of the visual task in terms of size, contrast, colour, form and texture for the following lighting applications:
 - (i) display of glassware in a vertical display case
 - (ii) inspection of flaws in fabric in a quality control area in a factory
 - (iii) the study of colour and detail in an oil painting in an art gallery.

For each application what are the implications for a proposed lighting solution?

2. Develop an annotated checklist of the factors to be considered when integrating daylighting and electric lighting in interiors and outline the precautions required to ensure the effective use and acceptance of control systems by users.
3. Compare the approach taken to the specification of surface colours by
 - (i) the Munsell Colour System
 - (ii) the Natural Colour System (NCS).
4. Describe the main features and performance of the eye-brain system with particular emphasis on the spectral response characteristics of the photoreceptors in the retina.

END OF PAPER