

**NATURAL SCIENCES TRIPOS Part IB**  
**NATURAL SCIENCES TRIPOS Part II (General)**  
**NATURAL SCIENCES TRIPOS Preliminary Examination for Part II Psychology**

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Thursday 31 May 2007

9.00 to 12.00

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**EXPERIMENTAL PSYCHOLOGY I**

*Answer ALL questions.*

*Each section carries equal marks.*

*Within each section the first question carries one third of the marks available and the second questions carries two-thirds of the marks. Candidates are advised to allocate their time to each question accordingly.*

*Answers from each Section must be tied up in a separate bundle, with the letter of the Section written on each cover sheet.*

*Write your number **not** your name on the cover sheet for each Section.*

**STATIONERY REQUIREMENTS**

*Loose script paper*

*Cover sheets*

You may not start to read the questions printed on the subsequent pages of this question paper until instructed that you may do so by the Invigilator.

## SECTION A

1. *Give a short account of TWO of the following:*
  - (a)  $d'$
  - (b) Inhibition of return
  - (c) Depth cues
  - (d) The Craik-Cornsweet illusion
  
2. *Write an essay to answer ONE of the following questions:*
  - (a) What are the principles of univariance and adaptive independence? What implications do they have for the study of vision?
  - (b) Can we do two things at once without cost?

## SECTION B

3. *Give a short account of TWO of the following:*
  - (a) The function of the orbito-frontal cortex
  - (b) Neglect
  - (c) Retrograde amnesia
  - (d) The James-Lange theory of emotion
  
4. *Write an essay to answer ONE of the following questions:*
  - (a) Is language represented in the left hemisphere of the brain? Evaluate evidence from both healthy and brain-damaged individuals.
  - (b) Distinguish between classical and instrumental conditioning and discuss the role of 'habits' in the latter.

## SECTION C

5. *Give a short account of TWO of the following:*
  - (a) Object permanence in infants
  - (b) Memory in infants
  - (c) Reasoning in adolescence and adulthood
  - (d) Special Constraints theory
  
6. *Write an essay to answer ONE of the following questions:*
  - (a) What did Piaget mean by 'concrete operational' thinking? Was he right to claim that it constitutes a distinct stage of mental development?
  - (b) Evaluate the claim that children acquire a 'theory of mind' around the age of four years.

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**END OF PAPER**