UNIVERSITY OF LONDON

GOLDSMITHS COLLEGE

B. Sc. Examination 2013

COMPUTING AND INFORMATION SYSTEMS

IS53034A   Interaction Design

Duration: 2 hours 15 minutes

There are five questions in this paper. You should answer no more than THREE questions. Full marks will be awarded for complete answers to a total of THREE questions. Each question carries 25 marks. The marks for each part of a question are indicated at the end of the part in [.] brackets.

There are 75 marks available on this paper.

No calculators should be used.

THIS PAPER MUST NOT BE REMOVED
FROM THE EXAMINATION ROOM

Question 1   Identifying needs

  (a) State three potential pitfalls that need to be addressed when using focus groups
      as a means of collecting data   [3]

  (b) You have been asked to develop the preliminary ideas for a full redesign of the
      interface to an e-commerce site which has recently been losing customers.

      i. How would you identify the particular needs of your users?   [5]

      ii. How would you obtain detailed task requirements?   [5]

      iii. Provide a design and usability evaluation plan.   [5]

  (c) Write a scenario for a user wanting to buy an item of clothing from the e-commerce
      site.   [2]

  (d) Create a hierarchical task analysis for this scenario.   [5]

Question 2   Requirements and tasks

(a) A group of universities has decided to collaborate to produce an information system to help potential students find appropriate courses. Assume that under the current system the potential new students are unable to access this information directly themselves and rely on a careers officer to pass the information to them. The proposed system will be online and will provide information to potential students about degree programme content and requirements, university and local facilities, fees and admissions procedures.

   i. Identify and categorize the main stakeholders for this system.   [5]

  ii. Describe the requirements and tasks of the careers officer with regard to:

     a) the current system   [10]

     b) the proposed system   [10]

Question 3   Design

(a) Describe the Participatory Design technique.   [4]

(b) Give three advantages and three disadvantages of using Participatory Design.   [6]

(c) Explain the difference between design heuristics, design standards, and design
    patterns.   [3]

(d) Schneiderman provides "8 Golden Rules" for interface design. These are:

    1. Be Consistent
    2. Use Shortcuts
    3. Provide Feedback
    4. Use Closure
    5. Prevent Handle Errors
    6. Make Actions Reversible
    7. Provide an Internal Locus of Control
    8. Reduce Memory Load

    For six of these rules, describe how the rule should be used.   [12]

Question 4   Evaluation

(a) List three advantages and three disadvantages of using video to record user tests.   [6]

(b) What are discount usability techniques?   [4]

(c) You have a prototype for an online theatre booking system to be used by potential theatre-goers to reduce queues at the box office. You should identify:

   i. The participants.   [2]

   ii. An appropriate evaluation technique.   [2]

   iii. Representative tasks to be examined.   [2]

   iv. Measurements that would be appropriate.   [2]

(d) Write a detailed plan for carrying out the evaluation of the above system.   [7]

Question 5   Human Computer Interaction

  (a) Human Computer Interaction emerged as a discipline in the early 1980s. Describe its conceptual relationships with other disciplines, and discuss the impact of some of the technologies that have led to the establishment of HCI, ID and UX as an area of study and application in its own right.   [25]