

**UNIVERSITY OF LONDON**

**GOLDSMITHS COLLEGE**

**B. Sc. Examination 2006**

**COMPUTING AND INFORMATION SYSTEMS**

**IS52013A (CIS219)**

**GRAPHICAL OBJECT ORIENTED PROGRAMMING AND WEBSITE  
DESIGN**

**Duration: 3 hours**

**Date and time:**

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*This paper is in two parts, Part A and Part B. There are a total of three questions in each part. You should answer two questions from Part A and two questions from Part B. Your answers to Part A and Part B should be written in separate answer books.*

*Full marks will be awarded for complete answers to a total of four questions, two from Part A and two from Part B. 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 100 marks available on this paper.*

*No calculators should be used.*

**THIS PAPER MUST NOT BE REMOVED FROM THE EXAMINATION  
ROOM**

**PART B (ANSWER ONLY 2 QUESTIONS FROM THIS PART)**

Question 4

- a)
  - i. What is meant by an HTML ‘tag attribute’? [1]
  - ii. How are HTML tag attributes used on an HTML document? [2]
- b)
  - i. What constrains or limitations brought about the creation of CSS? [3]
  - ii. Why are there two (possibly three) CSSs? [2]
- c) There are three levels of style sheets.
  - i. How do they differ from each other. [4]
- d)
  - i. What are the main components of a style rule? [3]
  - ii. Give an example of a rule, styling level 2-headings to blue colour [3]
- e) What is meant by the term ‘type selector’? [1]
- f) Style sheets implement a tree-like structure through inheritance.
  - i. How does it effect the HTML stylistic properties? [2]
- g) CSS permits inheritance overriding.
  - i. Write down a small example that demonstrates the overriding mechanism. [4]

Question 5

- a) What does PHP stand for and what are two of its advantages? [2]
- b) Write down the basic steps followed each time you develop and run a PHP script. [3]
- c) What PHP function(s) can you use to output HTML elements on a PHP script? [2]
- d) Which of the following are not valid PHP variable names?
1. \$x^2counter,
  2. \$\_1x,
  3. \$\*soccer,
  4. \$\_Time\_C\_ounte\_\_r,
  5. taxRate,
  6. &income

Explain why your selection(s) are not valid PHP. [3]

- e)
- ii. What are the operator evaluation rules in PHP? [2]
  - iii. What would be the values of \$x and \$y after executing the following statements?

```
<?php
  $x = (10 + 6 ) % 3;
  $y = 13 * (50/33 + 2)+1*5;
?>
```

[3]

- f) What is the output of the following PHP code segment?

```
<?php
  $x = 21; $y = 12;
  $num = $x + 6 / $y;
  print("Num is $num but x is $x") ;
?>
```

[3]

- g)
- i. What is the difference between a text box, text area, and a password box in HTML forms? [3]
  - ii. Create an HTML FORM that contains one text box, one password

box, one submit button and one reset button. [4]

Question 6

- a)
- i. List two types of conditional statements and two types of looping statements supported in PHP. [4]
  - ii. Which test operator (i.e. relational operator) is used in PHP to test whether two strings are equal to each other? [1]
- b) What is the value of **\$i** after running the following PHP code segment?

```
%i = 7; $j = 4;
if ($i > $j)
    $i = $i + 1;
elseif($i < $j)
    $i = $i - 1;
else
    $i = 0;
```

[3]

- c) How many times will the loop in the following code be repeated?

```
$flag = 0;
$ctr = 0;
while(!$flag){
    $ctr = $ctr + 1;
    if($ctr > 5)
        $flag = 1;
}
```

[3]

- d)
- i. Provide two advantages of writing your own functions in PHP. [2]
  - ii. What would be the output from executing the following PHP code?

```
function change_value($input){
    $input = $input * $input;
}
$input = 5;
change_value(&$input);
print("Answer = $input");
```

[3]

f)

- i. Provide two advantages of using arrays in PHP scripts. [2]
- ii. What would be the output from executing the following PHP code? [3]

```
$std = array("Michael, Daniel", "Bright, Erica", "Miller,  
Steven", "Jones, Fiona");  
print "$std[0] and $std[3] have enrolled on a computing  
course";
```

g)

- i. Show an SQL statement that creates a table called 'Library' and has the following four columns: [2]

```
title(VARCHAR(50)), author(VARCHAR(50)),  
isbn(VARCHAR(30)), status(INT)
```

- ii. What PHP function would you use to create the table of part (g)(i)? [2]