DESIGN BRIEFS

COMPUTER SCIENCE
Stage 2 WACE Examination Design Brief

Stage 2: Applying knowledge and skills in a structured setting.
Content: 50% from Unit 2A and 50% from Unit 2B
15–20% from Components
15–20% from Design, development and management
60–70 % from Tools
Weighting: Written 50%
Computer-based 50%

Exam paper sections	Supporting Information
Section One **Written response** **Recommended time: 90 minutes** **Weighting: 50%**	These items sample breadth and depth of course content and skills. Formats may include short paragraphs, dot points, diagrams, algorithms and tables. Stimulus material may be used and could include diagrams, short excerpts from newspaper/journal articles, algorithm segments and screen captures of databases or programs. Items may relate to stimulus material or a common scenario and could be structured as a range of closed and open questions with parts that increase in complexity, allowing students to demonstrate depth of knowledge.
Section Two **Computer-based production**	These questions provide candidates with an opportunity to demonstrate practical database skills and programming skills. Items could be structured as a range of questions with parts that increase in complexity and allow students to demonstrate knowledge and skills.
Part A Database **Weighting: 25%** **Recommended time: 45 minutes**	Students will be required to create tables, relationships, queries, forms and reports. Stimulus material could include entity relationship diagrams, data dictionaries, partially completed table structures, completed table structures with data, and screen captures of table designs, forms or reports.
Part B Programming **Weighting: 25%** **Recommended time: 45 minutes**	Students will be required to demonstrate good programming practice in creating program code. They may be required to locate and fix errors. Stimulus material could include flow charts, algorithm segments, incomplete program code, program code with logic or syntax errors and screen captures of programs.

OTHER CONSIDERATIONS

The Computer Science WACE examination will have 2 sections. It may consist of one or more scenarios to provide a more holistic exam format rather than discrete independent questions.

A combined question/answer booklet will be used for the written sections.

A printed question booklet and electronic materials will be used for the computer-based section. Computer-based programming and database responses will be submitted in electronic format. Examination centres will provide a computer per student with the programming language and database program required by the student.

Section 2, Part A Databases: Microsoft Access, OpenOffice.org Base,
Section 2, Part B Progamming languages: PHP, Microsoft Visual Basic Express Edition

EXAMINATION LENGTH

The format of the external examination is 3 hours with an additional 10 minutes reading time.

Students require access to a computer lab for section 2.

PERMISSIBLE MATERIALS

The general materials permitted for use in the WACE examination are: pens, pencils, eraser or correction fluid, ruler, highlighter, computer with database and programming software.

The special materials permitted for use in the WACE examination are: non-programmable calculators and a MATHOMAT and/or Mathaid and/or any system flowchart template.

Computer Science: Stage 2 and 3 Design Brief

COMPUTER SCIENCE
Stage 3 WACE Examination Design Brief

Stage 3: Applying knowledge and skills at a conceptual level.
Content: 50% from Unit 3A and 50% from Unit 3B
15–20% from Components
15–20% from Design, development and management
60–70 % from Tools
Weighting: Written 60%
Computer-based 40%

Exam paper sections	Supporting Information
Section 1 **Written response** **Recommended time: 90 minutes Weighting: 60%**	These items sample breadth and depth of course content and skills. Formats may include short paragraphs, dot points, diagrams, algorithms and tables. Stimulus material may be used and could include diagrams, short excerpts from newspaper/journal articles, algorithm segments and screen captures of databases or programs. Items may relate to stimulus material or a common scenario and could be structured as a range of closed and open questions with parts that increase in complexity, allowing students to demonstrate depth of knowledge and understanding.
Section 2 **Computer-based production**	These questions provide candidates with an opportunity to demonstrate practical database skills. Items could be structured as a range of questions with parts that increase in complexity and allow students to demonstrate knowledge and skills.
Part A Database **Weighting: 20%** **Recommended time: 45 minutes**	Students will be required to create database tables, key fields and relationships from unnormalised data or a M:M design. They may be required to apply validation rules and set lookup values. More complex queries may include update, delete, parameter and aggregation queries and the use of calculated fields. Students may be required to create forms and reports based on queries or tables. Stimulus material could include entity relationship diagrams, data dictionaries, partially completed table structures, completed tables structures with data, and screen captures of table designs, forms or reports.
Part B Programming **Weighting: 20%** **Recommended time: 45 minutes**	Students will be required to create code for modules that communicate through the use of value and vaiable parameters. They may be required to create code for an array and to read text files. Stimulus material could include flow charts, algorithm segments, incomplete program code, program code with logic or syntax errors and screen captures of programs.

OTHER CONSIDERATIONS

The Computer Science WACE examination will have 2 sections. It may consist of one or more scenarios to provide a more holistic exam format rather than discrete independent questions.

A combined question/answer booklet will be used for the written sections.

A printed question booklet and electronic materials will be used for the computer-based section. Computer-based programming and database responses will be submitted in electronic format. Examination centres will provide a computer per student with the programming language and database program required by the student.

Section 2, Part A Databases: Microsoft Access, OpenOffice.org Base
Section 2, Part B Progamming languages: PHP, Microsoft Visual Basic Express Edition

EXAMINATION LENGTH

The format of the external examination is 3 hours with an additional 10 minutes reading time.

Students require access to a computer lab for section 2.

PERMISSIBLE MATERIALS

The general materials permitted for use in the WACE examination are: pens, pencils, eraser or correction fluid, ruler, highlighter, computer with database and programming software.

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