| Candidate | Centre | Candidate |
|-----------|--------|-----------|
| Name | Number | Number |
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GCE AS/A level

1241/01

INFORMATION AND COMMUNICATION TECHNOLOGY

IT 1

INFORMATION SYSTEMS

P.M. THURSDAY, 14 January 2010

 $2\frac{1}{4}$ hours

| For Examiner's use only | | | | |
|-------------------------|-----------------|-----------------|--|--|
| Question | Maximum Mark | Mark Awarded | | |
| 1 | 6 | | | |
| 2 | 8 | | | |
| 3 | 3 | | | |
| 4 | 6 | | | |
| 5 | 6 | | | |
| 6 | 6 | | | |
| 7 | 7 | | | |
| 8 | 18 | | | |
| 9 | 4 | | | |
| 10 | 16 | | | |
| Total | 80 | | | |

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer all questions.

Write your answers in the spaces provided in this booklet.

The intended marks for questions or part questions are given in brackets []. You are advised to divide your time accordingly. The total number of marks available is 80.

You are reminded of the necessity for good written communication and orderly presentation in your answers.

Quality of written communication will be assessed in question 8.

You will need to refer to the spreadsheet you have prepared to answer question 10.

SECTION A

Answer all questions

| Data | is often coded before being entered into a computer. This saves time typing in the data | |
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| (a) | Give two other advantages of encoding data before entering it into a computer. | [2 |
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| (b) | Encoding value judgements from a questionnaire can often lead to inaccurate results. Explain with the use of two appropriate examples why this may happen. | [2x2 |
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| [2 | Describe why the data contained in this system must be kept up-to-date. | Desci | (a) |
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| administra | There are a number of costs associated with keeping data up-to-date. Descri of distinctly <i>different</i> examples, two such costs in relation to the school's system. | of dis | (b) |
| | | of dis | (b) |
| administra | of distinctly different examples, two such costs in relation to the school's | of dis | (<i>b</i>) |
| administra | of distinctly different examples, two such costs in relation to the school's | of dis | (b) |
| administra | of distinctly different examples, two such costs in relation to the school's | of dis | (<i>b</i>) |
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| administra | of distinctly different examples, two such costs in relation to the school's | of dis | (b) |

| Banks use validation and verification methods to reduce data entry errors in their online ba systems. (a) Define the term validation. Name and describe one validation method used in combanking systems. (b) Define the term verification. Name and describe one verification method used in combanking systems. | гэ |
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| (a) Define the term validation. Name and describe one validation method used in obanking systems. (b) Define the term validation. Name and describe one validation method used in obanking systems. | [3 |
| (a) Define the term validation. Name and describe one validation method used in cobanking systems. (b) Define the term validation. Name and describe one validation method used in cobanking systems. | |
| Define the term <i>validation</i> . Name and describe one <i>validation</i> method used in chanking systems. (b) Define the term <i>varification</i> . Name and describe one <i>varification</i> method used in chanking systems. | |
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| (b) Define the term <i>verification</i> . Name and describe one <i>verification</i> method used in o | [3 |
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| ICT systems offer Describe three such | many advantages over corresponding manual methods of proce advantages and illustrate each with a distinctly <i>different</i> example. | ssing data. [3x2] |
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| (a) | Templates | |
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| (b) | Macros | |
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| (c) | Mailmerge | |
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| (a) | Other than sharing hardware devices and the sending and receiving of e-mail, described detail three benefits that networking would give the organisation. |
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| (b) | Discuss the advantages and disadvantages that the use of email brings to the organisation |
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| (a) | Extensive use is made of Expert Systems. State the three main components of every exsystem and then describe with examples the advantages and disadvantages of usin expert system in medicine. |
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| (b) | Hospitals use ICT to monitor and care for patients. Discuss, using examples, how be scanning, blood tracking and sensors are used in patient care. Discuss the advantages and disadvantages this technology has for patient care. |
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SECTION B

Answer all questions

| Y OU 1 | MUST REFER TO YOUR OWN SPREADSHEET TO ANSWER THE FOLLOWING QUESTION. |
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| NO SI | QUESTION. PREADSHEET EVIDENCE IS SUBMITTED THEN NO MARKS CAN BE AWARDS E ENSURE THAT YOU NUMBER THE PAGES OF YOUR EVIDENCE AND REFE |
| NO SI LEAS | QUESTION. PREADSHEET EVIDENCE IS SUBMITTED THEN NO MARKS CAN BE AWARDS E ENSURE THAT YOU NUMBER THE PAGES OF YOUR EVIDENCE AND REFE TO THIS NUMBERING IN YOUR ANSWERS. Describe the purpose or function of two different formulas from list A and one from list E |
| NO SI LEAS | QUESTION. PREADSHEET EVIDENCE IS SUBMITTED THEN NO MARKS CAN BE AWARDE E ENSURE THAT YOU NUMBER THE PAGES OF YOUR EVIDENCE AND REFE TO THIS NUMBERING IN YOUR ANSWERS. Describe the purpose or function of two different formulas from list A and one from list E which you have used in your spreadsheet. A: SUM, COUNT, MAX, MIN, AVERAGE, RAND |
| NO SI LEAS | QUESTION. PREADSHEET EVIDENCE IS SUBMITTED THEN NO MARKS CAN BE AWARDE E ENSURE THAT YOU NUMBER THE PAGES OF YOUR EVIDENCE AND REFE TO THIS NUMBERING IN YOUR ANSWERS. Describe the purpose or function of two different formulas from list A and one from list E which you have used in your spreadsheet. A: SUM, COUNT, MAX, MIN, AVERAGE, RAND |
| NO SI LEAS | QUESTION. PREADSHEET EVIDENCE IS SUBMITTED THEN NO MARKS CAN BE AWARDE E ENSURE THAT YOU NUMBER THE PAGES OF YOUR EVIDENCE AND REFE TO THIS NUMBERING IN YOUR ANSWERS. Describe the purpose or function of two different formulas from list A and one from list E which you have used in your spreadsheet. A: SUM, COUNT, MAX, MIN, AVERAGE, RAND |

| (b) | Describe the way you giving one advantage a spreadsheet. | used the VLOOKUP that the disadvantage of the | function (or its variation of using such technique | ons) in your spreadsheet, es for entering data into a [3] |
|---------|---|---|--|---|
| (b) | giving one advantage a | used the VLOOKUP that and one disadvantage of | function (or its variation of using such technique | es for entering data into a |
| (b) | giving one advantage a | used the VLOOKUP that and one disadvantage of | function (or its variation of using such technique | es for entering data into a |
| (b) | giving one advantage a | used the VLOOKUP to and one disadvantage of | function (or its variation of using such technique | es for entering data into a |
| (b) | giving one advantage a | used the VLOOKUP to and one disadvantage of | function (or its variation of using such technique | es for entering data into a |
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| | giving one advantage a spreadsheet. | and one disadvantage o | of using such technique | es for entering data into a [3] |

| | Describe one method of validation error to | De | (c) |
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| ou used in your spreadsheet. | Identify two of the following features you | Ide | d) |
| PH, DROP DOWN LIST | SORT, SEARCH, GRAPE | | |
| sed for and explain its purpose in your spreadsheet. [2x2] | For each feature, describe what it was used | For | |
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