



# **2013 Information Systems**

## **Intermediate 2**

### **Finalised Marking Instructions**

© Scottish Qualifications Authority 2013

The information in this publication may be reproduced to support SQA qualifications only on a non-commercial basis. If it is to be used for any other purposes written permission must be obtained from SQA's NQ Assessment team.

Where the publication includes materials from sources other than SQA (secondary copyright), this material should only be reproduced for the purposes of examination or assessment. If it needs to be reproduced for any other purpose it is the centre's responsibility to obtain the necessary copyright clearance. SQA's NQ Assessment team may be able to direct you to the secondary sources.

These Marking Instructions have been prepared by Examination Teams for use by SQA Appointed Markers when marking External Course Assessments. This publication must not be reproduced for commercial or trade purposes.

## Part One: General Marking Principles for Information Systems Intermediate 2

*This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this Paper. These principles must be read in conjunction with the specific Marking Instructions for each question.*

- (a) Marks for each candidate response must always be assigned in line with these general marking principles and the specific Marking Instructions for the relevant question. If a specific candidate response does not seem to be covered by either the principles or detailed Marking Instructions, and you are uncertain how to assess it, you must seek guidance from your Team Leader/Principal Assessor.
- (b) Marking should always be positive ie, marks should be awarded for what is correct and not deducted for errors or omissions.

### GENERAL MARKING ADVICE: Information Systems Intermediate 2

*The marking schemes are written to assist in determining the “minimal acceptable answer” rather than listing every possible correct and incorrect answer. The following notes are offered to support Markers in making judgements on candidates’ evidence, and apply to marking both end of unit assessments and course assessments.*

Where multiple answers are given by a candidate:

1. If it is a **state** question where only 1 answer is asked for, then the first answer should be taken as their answer.  
e.g. Answer – correct, wrong – 1 mark  
e.g. Answer – wrong, correct – 0 marks
2. If it is a descriptive question then ignore what is wrong and mark what is correct.

**Part Two: Marking Instructions for each Question**

**SECTION I**

| Question |   | Expected Answer/s  | Max Mark | Additional Guidance   |
|----------|---|--|----------|---|
| 1        |   | <ul style="list-style-type: none"> <li>Data is raw (unprocessed) facts and figures (1 mark)</li> <li>Information is data that is given in context so that it has meaning (1 mark)</li> </ul>   | 2 KU     |   |
| 2        | a | The quantity of goods that can be ordered and billed.  | 1 PS     | <i>Answer must be given in context of question</i>                            |
| 2        | b | <ul style="list-style-type: none"> <li>to plan how to set up the network (1 mark)</li> <li>to manage its distribution of data effectively (1 mark)</li> </ul>  | 2 KU     | <i>Must be some indication of planning</i>                                    |
| 3        |   | <p><i>Any one of:</i></p> <ul style="list-style-type: none"> <li>Don't write in all capitals</li> <li>Don't use language that would offend anyone</li> <li>Don't start flame wars</li> <li>Others</li> </ul>   | 1 KU     | <i>Got to be some indication talking about all capitals and not just one.</i> |
| 4        | a | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>Process that allows the user to access previously collected and stored data.</li> <li>The process by which data is selected and extracted from a file, a group of files, or a database</li> </ul> | 1 KU     |   |
| 4        | b | <ul style="list-style-type: none"> <li>Real</li> </ul>   | 1 PS     | <i>Do not accept number or decimal</i>  |


| Question                         |   | Expected Answer/s  | Max Mark    | Additional Guidance  |
|----------------------------------|---|--|-------------|--|
| 4                                | c | <p>Obviously there will be a wide range of possible answers to this question. Suitable answers should include some indication of the data being analysed or a calculation being performed upon it.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• Calculating the winner of the event</li> <li>• Calculating who had thrown the furthest distance</li> <li>• Sorting the list in order of distance</li> <li>• Selecting those competitors who had qualified</li> </ul> | 1 PS        | <i>Must apply to scenario</i>  |
| 5                                |   | <p>Any two from:</p> <ul style="list-style-type: none"> <li>• Identify which attributes belong in each table</li> <li>• Identify the tables that are required</li> <li>• Identify the relationships between the tables</li> <li>• Remove data duplication/remove repeating data/groups</li> <li>• Remove data inconsistency</li> <li>• Identify primary and foreign keys</li> <li>• Other acceptable answers</li> </ul>  | 2 KU        |  |
| 6                                |   | <p>Any one from:</p> <ul style="list-style-type: none"> <li>• Allows expert users and non-experts to choose their preferred method.</li> <li>• Allows expert users to use shortcuts and basic users to use menus.</li> </ul>   | 1 KU        | <i>Do not accept answers like to make it easier/quicker to use.</i>  |
| 7                                | a | <ul style="list-style-type: none"> <li>• Multi-valued field</li> </ul>   | 1 PS        | <i>Do not accept multi-attributed field or repeating attributes.</i> |
| 7                                | b | <ul style="list-style-type: none"> <li>• 4 records</li> </ul>  | 1 PS        | <i>Only acceptable answer</i>  |
| 7                                | c | <ul style="list-style-type: none"> <li>• Content of the field must match one of a list of acceptable contents.</li> </ul>  | 1 KU        |  |
| <b>Total marks for Section I</b> |   |  | <b>(15)</b> |  |

## Section II

| Question |   |   | Expected Answer/s   | Max Mark | Additional Guidance  |
|----------|---|---|---|----------|--|
| 8        | a |   | <p>Any two from:</p> <ul style="list-style-type: none"> <li>• Data duplication</li> <li>• Data inconsistency or update/deletion/insertion anomalies</li> <li>• Data integrity errors (due to data inconsistency)</li> <li>• Inconsistent search results in multi-value fields</li> </ul>  | 2 KU     |  |
| 8        | b |   | <p>BRANCH (<u>branchID</u>, location, manager, tel number)<br/>           VEHICLE (<u>car_reg</u>, make, model, year, colour, price, branchID*)</p> <p><b>1 mark for Branch table name</b><br/> <b>1 mark for all correct attributes in Branch</b><br/> <b>1 mark for <u>branchID</u> as PK</b></p> <p><b>1 mark for VEHICLE or CAR table name</b><br/> <b>1 mark for all correct attributes in VEHICLE</b><br/> <b>1 mark for <u>car-reg</u> as PK</b><br/> <b>1 mark for BranchID as FK</b></p> | 7PS      | <i>Do not accept compound primary key in vehicle table</i> |
| 8        | c |   | Object  | 1 PS     |  |
| 9        | a |   | <p>Any one from:</p> <ul style="list-style-type: none"> <li>• Data only held in one file, so less duplication of data</li> <li>• Less duplication of data, better data integrity</li> <li>• Easy to edit/update details in single file</li> <li>• Easy to arrange backup of single file</li> <li>• Easier to search/sort as they are in the one place.</li> </ul>   | 1 PS     |  |
| 9        | b |   | Security (strategy)   | 1 KU     |  |
| 9        | c | i | <p>Any one from:</p> <ul style="list-style-type: none"> <li>• Lowland Hockey League</li> <li>• (League) administrators</li> </ul>   | 1 PS     | <i>Answer must relate to scenario</i>                      |

| Question |   |    | Expected Answer/s  | Max Mark | Additional Guidance   |
|----------|---|----|--|----------|---|
| 9        | c | ii | <p><i>Any two from:</i></p> <ul style="list-style-type: none"> <li>• Register with information commissioner/ data protection registrar</li> <li>• information is processed for specified purposes</li> <li>• information is adequate, relevant and not excessive</li> <li>• information is accurate and where necessary, kept up to date</li> <li>• information is not kept for longer than is necessary</li> <li>• information is processed in accordance with individuals rights</li> <li>• information is kept secure and protected from loss, damage, or unauthorised access</li> <li>• information is not transferred overseas without adequate protection</li> </ul> | 2 KU     | <i>Do not accept answers that refer to the data subject's rights</i>  |
| 9        | d | i  | row  | 1 PS     | <i>Do not accept A7:F7</i>  |
| 9        | d | ii | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• Change fill colour of the row</li> <li>• Alter row height of the row</li> <li>• Change text size, style, font, colour of the row</li> </ul>   | 1 KU     | <p><i>Accept examples of style change e.g. make the text in the row italic.</i></p> <p><i>Answer must be a description. One word answers are not a description.</i></p> |
| 9        | e |    | <p>Points descending order (1 mark)</p> <p>AND</p> <p>Team ascending order (1 mark)</p>  | 2 PS     |   |
| 9        | f |    | Add attachment to e-mail message   | 1 PS     |   |
| 9        | g |    | Browser  | 1 KU     | <i>No proprietary names e.g. Internet Explorer, Firefox etc.</i>  |

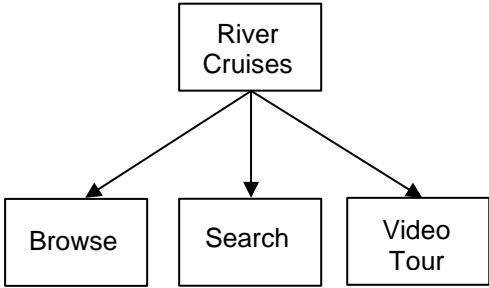
| Question |   |    | Expected Answer/s   | Max Mark | Additional Guidance  |
|----------|---|----|---|----------|--|
| 10       | a | i  | <p><i>Any two from:</i></p> <ul style="list-style-type: none"> <li>• Increased productivity</li> <li>• Increased profitability</li> <li>• Increased sales due to bigger potential customer base</li> <li>• Better efficiency in handling orders</li> <li>• Gain competitive advantage</li> <li>• Large capital outlay for hardware and software</li> <li>• Costs incurred for training staff</li> <li>• Increased energy use</li> <li>• Increased maintenance charges</li> <li>• Increased need for consumables e.g. toner/paper</li> <li>• Locked into upgrades for software etc.</li> </ul> | 2 KU     | <i>Must relate to effect on <u>business</u>.</i>           |
| 10       | a | ii | <p><i>Any two from:</i></p> <ul style="list-style-type: none"> <li>• Internet access readily available so people shop from home</li> <li>• Can shop at a convenient time to them as open 24/7.</li> <li>• www gives shoppers access to world wide market place so don't always buy locally</li> <li>• Online access available on mobile device so people can check prices with different stores before they buy</li> <li>• Don't need to leave the house to do the shopping</li> </ul>  | 2 PS     | <i>Do not accept just "Don't need to leave the house."</i> |
| 10       | b | i  | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• <b>Query</b> executed with given criteria</li> <li>• <b>Search</b> field called Product Type = camera</li> </ul>   | 1 PS     |  |
| 10       | b | ii | PK uniquely identifies a <u>record/row</u> in the table.  | 1 KU     |  |

| Question                          |   |     | Expected Answer/s  | Max Mark    | Additional Guidance |
|-----------------------------------|---|-----|--|-------------|---------------------|
| 10                                | b | iii | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• Report designed to only show necessary fields (customer already knows what they searched for, so product type omitted)</li> <li>• Too many fields to show all at once – information overload</li> <li>• Customer only needs more details of products they are interested in so no need to show all fields at once.</li> </ul> | 1 PS        |                     |
| 10                                | c |     | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• Validation</li> <li>• Presence check</li> </ul>   | 1 PS        |                     |
| 10                                | d |     | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• One customer Many orders</li> <li>• 1:M</li> </ul>  <pre> graph LR     CUSTOMER[CUSTOMER] --- places{places}     places --- ORDER[ORDER]   </pre> <ul style="list-style-type: none"> <li>•</li> </ul>                                      | 1 PS        |                     |
| <b>Total marks for Section II</b> |   |     |  | <b>(30)</b> |                     |



Section III

PART A – Applied Multimedia

| Question |   |    | Expected Answer/s  | Max Mark | Additional Guidance  |
|----------|---|----|--|----------|--|
| 11       | a |    | <p>Any one from:</p> <ul style="list-style-type: none"> <li>• Business</li> <li>• Advertising and Selling Products</li> </ul>  | 1 PS     | <p>Only acceptable answers<br/>Do not accept answers like holidays/tourism etc.</p>  |
| 11       | b |    | Menu   | 1 PS     | Only acceptable answer   |
| 11       | c | i  |  <pre> graph TD     A[River Cruises] --&gt; B[Browse]     A --&gt; C[Search]     A --&gt; D[Video Tour]             </pre>                        | 1 PS     | <p>Arrows not necessary.<br/>Some form of text indicating link to browse, search and video required</p>                            |
| 11       | c | ii | <ul style="list-style-type: none"> <li>• Hierarchical</li> </ul>   | 1 KU     | <p>(If a different navigational structure was drawn in part i), then accept the correct name for the type of structure drawn).</p> |
| 11       | d | i  | <ul style="list-style-type: none"> <li>• Does the solution meet the requirements specification?</li> </ul>   | 1 KU     | Answers about checking the quality should get 0 marks  |
| 11       | d | ii | <ul style="list-style-type: none"> <li>• <u>Resolution</u> has been <u>increased</u>.</li> </ul>   | 1 PS     | Both underlined terms required   |
| 11       | e | i  | <p>Any one from:</p> <ul style="list-style-type: none"> <li>• 4.7GB</li> <li>• Any other reasonable exact figure</li> </ul>  | 1 KU     |  |
| 11       | e | ii | <p>Any one from:</p> <ul style="list-style-type: none"> <li>• Prices may change</li> <li>• New cruises become available</li> <li>• Old cruises may be no longer available</li> <li>• Spelling mistake</li> <li>• Others</li> </ul> | 1 PS     |  |

| Question |   |     | Expected Answer/s  | Max Mark | Additional Guidance  |
|----------|---|-----|--|----------|--|
| 11       | f | i   | Documentation  | 1 PS     | <i>Only acceptable answer</i>  |
| 11       | f | ii  | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• So that a user will know if the software will work on their computer</li> <li>• So they will know the hardware and software requirements</li> </ul>   | 1 PS     |  |
| 12       | a | i   | <p><i>Any two from:</i></p> <ul style="list-style-type: none"> <li>• Ensuring development is completed within budget.</li> <li>• Giving regular feedback to client</li> <li>• Liaising with the rest of the development team</li> <li>• Providing necessary resources so rest of the team can do their job.</li> <li>• Appointing other members of the team</li> </ul> | 2 KU     | <i>Do not accept ensuring completed within timescale as in question.</i>                       |
| 12       | a | ii  | <ul style="list-style-type: none"> <li>• Analysis</li> </ul>   | 1 KU     | <i>Only acceptable answer</i>  |
| 12       | b | i   | <ul style="list-style-type: none"> <li>• Icon B would be the better choice as the icon looks like the function it has to carry out <b>(1 mark)</b> which would make it easier/more intuitive for the user <b>(1 mark)</b>.</li> </ul>  | 2 PS     |  |
| 12       | b | ii  | <ul style="list-style-type: none"> <li>• Transition</li> </ul>   | 1 KU     |  |
| 12       | c | i   | <ul style="list-style-type: none"> <li>• The <u>number of bits</u> used to store a sound sample</li> </ul>   | 1 KU     | <i>Only acceptable answer</i>  |
| 12       | c | ii  | <ul style="list-style-type: none"> <li>• The number of samples taken in <u>one second</u>.</li> </ul>  | 1 KU     | <i>Only acceptable answer</i>  |
| 12       | c | iii | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• Echo</li> <li>• Reverse</li> <li>• Fade In/Out</li> <li>• Amplify</li> <li>• Others available but must be reasonable</li> </ul>   | 1 KU     | <i>Do not accept dog barking, beep etc. Must be an effect that is applied to a sound file.</i> |

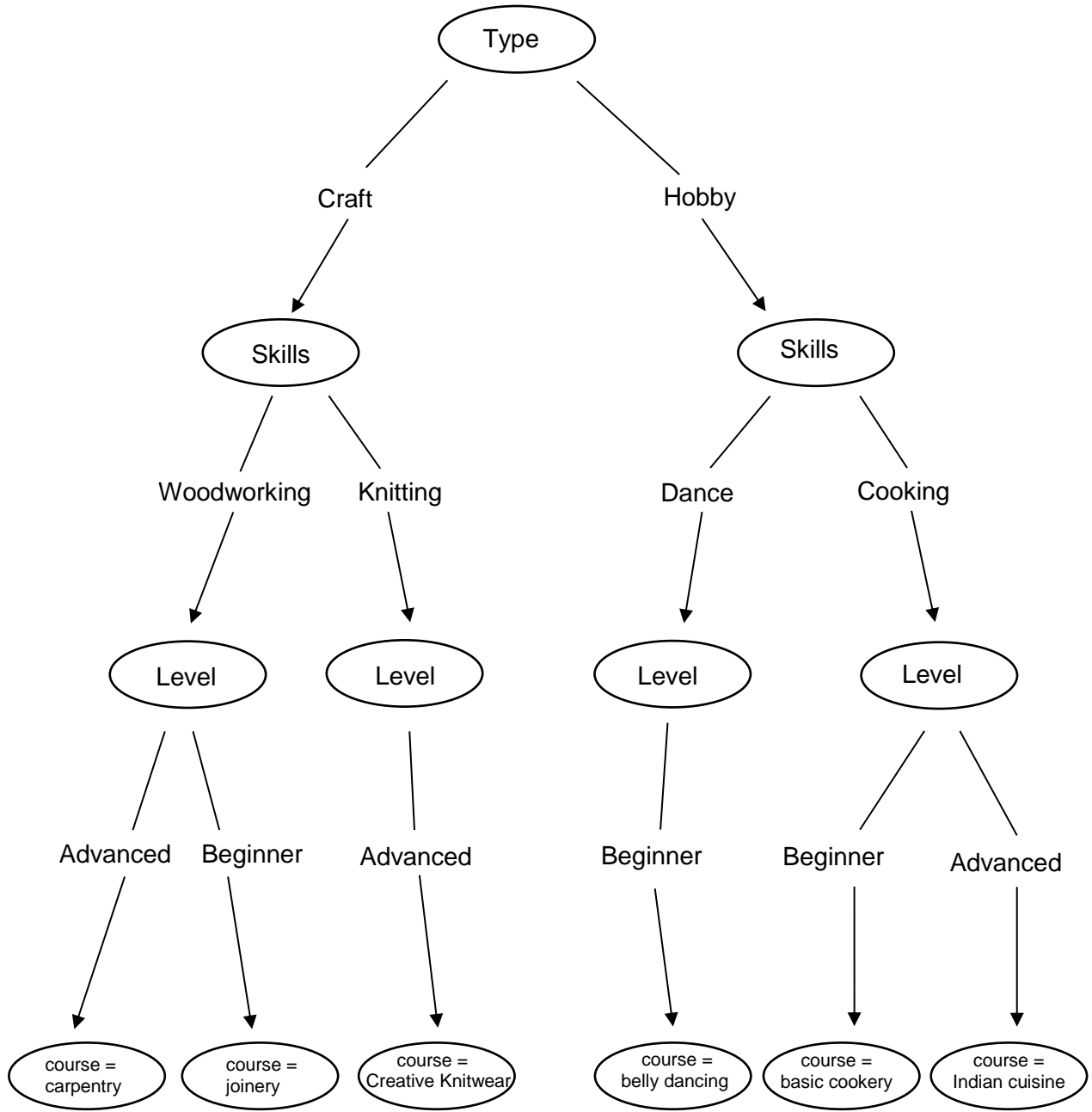
| Question                                    |   |     | Expected Answer/s  | Max Mark    | Additional Guidance |
|---|---|-----|--|-------------|---------------------|
| 12  | d |     | <ul style="list-style-type: none"> <li>Icon-based (authoring software)</li> </ul>  | 1 PS        |                     |
| 12  | e | i   | <p>Any one from:</p> <ul style="list-style-type: none"> <li>Volume Control</li> <li>Mute button</li> </ul>   | 1 PS        |                     |
| 12  | e | ii  | <p>Any one from:</p> <ul style="list-style-type: none"> <li>Home button</li> <li>Help button</li> <li>Previous button</li> <li>Next button</li> </ul>  | 1 PS        |                     |
| 12  | e | iii | <p>Any from:</p> <ul style="list-style-type: none"> <li>Left arrow takes you to previous ringtone</li> <li>Right arrow takes you to next ringtone</li> <li>Home button takes you to front screen of the ringtone app (or homepage of MobiApps).</li> <li>Help button takes you to the online help screen</li> </ul> <p>&gt;=3 correct tests – 2 marks<br/> 2 correct tests – 1 mark<br/> &lt;2 correct tests 0 marks</p> | 2 PS        |                     |
| 12  | e | iv  | <ul style="list-style-type: none"> <li>Consistency in headings/subheadings.</li> </ul>   | 1 PS        |                     |
| <b>Total marks for Section III – Part A</b> |   |     |  | <b>(25)</b> |                     |

### SECTION III

#### Part B - Expert Systems

| Question |   | Expected Answer/s  | Max Mark   | Additional Guidance   |  |
|----------|---|--|--|---|--|
| 13       | a | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• (To represent the) knowledge of one or more human experts</li> <li>• To provide explanations of why questions are being asked</li> <li>• To provide explanations of how conclusions were reached</li> <li>• To provide advice</li> <li>• To classify</li> <li>• To plan</li> <li>• To diagnose</li> </ul>   | 1 KU   |   |  |
| 13       | b | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• has (built in) user interface</li> <li>• has (built in) inference engine</li> <li>• do not accept knowledge base or empty knowledge base</li> </ul>   | 1 KU   | <i>Do not accept knowledge base or empty knowledge base</i>                         |  |
| 13       | c | <p><i>Any two from:</i></p> <ul style="list-style-type: none"> <li>• Facts about leaf sizes and shapes for different types of trees</li> <li>• Rules for distinguishing leaves and the trees they come from (facts and) rules</li> </ul>   | 2 PS   | <i>Must apply to scenario for full marks. If just give Facts and Rules – 1 mark</i> |  |
| 13       | d | <ul style="list-style-type: none"> <li>• Classification</li> </ul>   | 1 PS   | <i>Only acceptable answer</i>   |  |
| 13       | e | i  | <ul style="list-style-type: none"> <li>• User Interface</li> </ul> | 1 PS  |  |
| 13       | e | ii   | <ul style="list-style-type: none"> <li>• (Online) help</li> </ul>  | 1 PS  |  |
| 13       | f | <ul style="list-style-type: none"> <li>• 16</li> </ul>   | 1 PS   |   |  |
| 14       | a | <ul style="list-style-type: none"> <li>• Knowledge Acquisition/elicitation</li> </ul>  | 1 KU   |   |  |
| 14       | b | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• Converts knowledge obtained into facts and rules so that it can be entered into the knowledge base</li> <li>• Converts knowledge into format that can be entered into expert system</li> <li>• Formats knowledge so ready to go into knowledge base.</li> <li>• Format knowledge as factor table</li> </ul> | 1 KU   |   |  |

| Question | Expected Answer/s | Max Mark | Additional Guidance |
|----------|-------------------|----------|---------------------|
| 14       | c                 | 4 PS     |                     |



|  |  |  |  |
|--|--|--|--|
|  | <p>1 mark for both woodworking courses<br/> 1 mark for knitting branch (level not essential)<br/> 1 mark for dance branch (level not essential)<br/> 1 mark for both cooking courses</p> |  | <p>If no conclusions then max 2 marks.<br/> Alternative method of marking – 1 mark for correct skills section horizontally and 1 mark for Level section horizontally and 2 marks for all courses correctly identified.</p> |
|--|--|--|--|

| Question | Expected Answer/s  | Max Mark | Additional Guidance  |
|----------|--|----------|--|
|          | <pre> graph TD     Type([Type]) --&gt; Craft[Craft]     Type --&gt; Hobby[Hobby]     Craft --&gt; Level1([Level])     Level1 --&gt; Advanced1[Advanced]     Level1 --&gt; Beginner1[Beginner]     Advanced1 --&gt; Skills1([Skills])     Beginner1 --&gt; Skills2([Skills])     Skills1 --&gt; Woodworking1[Woodworking]     Skills1 --&gt; Knitting[Knitting]     Woodworking1 --&gt; Carpentry([course = carpentry])     Knitting --&gt; CreativeKnitwear([course = Creative Knitwear])     Skills2 --&gt; Woodworking2[Woodworking]     Woodworking2 --&gt; Joinery([course = joinery])     Hobby --&gt; Level2([Level])     Level2 --&gt; Beginner2[Beginner]     Level2 --&gt; Advanced2[Advanced]     Beginner2 --&gt; Skills3([Skills])     Advanced2 --&gt; Skills4([Skills])     Skills3 --&gt; Dance[Dance]     Dance --&gt; BellyDancing([course = belly dancing])     Skills4 --&gt; Cooking1[Cooking]     Skills4 --&gt; Cooking2[Cooking]     Cooking1 --&gt; BasicCookery([course = basic cookery])     Cooking2 --&gt; IndianCuisine([course = Indian cuisine]) </pre> |          |  |
|          | <p><b>1 mark for both advanced craft courses</b><br/> <b>1 mark for joinery branch (skills not essential)</b><br/> <b>1 mark for both beginner hobby courses</b><br/> <b>1 mark for Indian cuisine branch (skills not essential)</b></p>   |          | <p><i>If no conclusions then max 2 marks.</i><br/> <i>Alternative method of marking – 1 mark for correct skills section horizontally and 1 mark for Level section horizontally and 2 marks for all courses correctly identified.</i></p> |

| Question                                    |   |     | Expected Answer/s   | Max Mark    | Additional Guidance   |
|---|---|-----|---|-------------|---|
| 14  | d | i   | <ul style="list-style-type: none"> <li>A set of test cases is run and the answers checked with domain expert for accuracy</li> </ul>  | 1 KU        | <i>Do not accept ensure correct conclusion reached.</i>   |
| 14  | d | ii  | <ul style="list-style-type: none"> <li>Joinery Course is advised</li> </ul>   | 1 PS        |   |
| 14  | d | iii | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>Justification feature</li> <li>Explain to user why the question is being asked</li> </ul>  | 1 KU        |   |
| 15  | a | i   | <ul style="list-style-type: none"> <li>Forward chaining</li> </ul>  | 1 PS        | <i>Both terms required</i>  |
| 15  | a | ii  | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>Find facts about the employee to allow a conclusion to be drawn</li> <li>Asks the employee about themselves so that it can work out their holiday entitlement</li> </ul>   | 1 PS        | <i>Answer must relate to scenario<br/>If identified Backward Chaining in part i) then accept correct correct description of backward chaining in context.</i> |
| 15  | a | iii | <p>(IF employee IS management (no mark – already given in question)<br/>AND level IS junior (graduate)<br/>AND graduate IS true<br/>THEN holiday = 6 weeks.</p> <p><b>1 mark each line correct</b></p>  | 3 PS        |   |
| 15  | a | iv  | <ul style="list-style-type: none"> <li>Inference Engine</li> </ul>  | 1 KU        |   |
| 15  | b |     | <ul style="list-style-type: none"> <li>Version 2 better as question asked once with multiple choice answers (<b>1 mark</b>) however extra questions then required about type of manager – junior, senior or board or length of service of unpromoted staff (<b>1 mark</b>)</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>Version 1 not very efficient (<b>1 mark</b>) as same question about level of employee is asked four times. (<b>1 mark</b>)</li> </ul> <p><b>OR</b></p> <ul style="list-style-type: none"> <li>Version 1 requires user to type in answer to question (<b>1 mark</b>) and version 2 only needs to click button (<b>1 mark</b>)</li> </ul> | 2 PS        |   |
| <b>Total marks for Section III – Part B</b> |   |     |   | <b>(25)</b> |   |

### SECTION III

#### PART C – The Internet

| Question |   |     | Expected Answer/s   | Max Mark | Additional Guidance   |
|----------|---|-----|---|----------|---|
| 16       | a |     | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>• The contact hyperlink, links to an e-mail application.</li> <li>• The contact hyperlink, links to another website.</li> <li>• The contact hyperlink, links to an anchor that is on another part of the current webpage.</li> <li>• Connects to a file</li> <li>• Connects to a script</li> </ul> | 1 PS     |   |
| 16       | b | i   | <ul style="list-style-type: none"> <li>• Hierarchical</li> </ul>  | 1 PS     | <i>Only acceptable answer. Be lenient with spelling</i>                       |
| 16       | b | ii  | <p><i>Layout of navigation is unimportant, but there must be 3 buttons (links) shown to the golf clubs, golf bags and golf balls pages. It is acceptable if they include a home button, but it is not essential.</i></p> <p><i>1 mark for all 3 links.</i></p>  | 1 PS     |   |
| 16       | b | iii | <ul style="list-style-type: none"> <li>• <a href="http://www.broomhillgolfclub.co.uk/shop/golfbags.htm">www.broomhillgolfclub.co.uk/shop/golfbags.htm</a></li> </ul>  | 1 PS     | <i>The .htm is not necessary and be lenient with the spacing of golfbags.</i> |
| 16       | c | i   | <ul style="list-style-type: none"> <li>• Computer Misuse Act</li> </ul>   | 1 PS     | <i>Only acceptable answer</i>   |
| 16       | c | ii  | <p><i>Any two from:</i></p> <ul style="list-style-type: none"> <li>• The system would slow down (or performance would be degraded)</li> <li>• as the constant checking would be using up some of the processor's/server's/network time.</li> </ul>  | 2 PS     |   |
| 16       | c | iii | <ul style="list-style-type: none"> <li>• New viruses are being created all the time (so the virus protection software needs to be updated to deal with them).</li> </ul>  | 1 KU     |   |



| Question |   |    | Expected Answer/s  | Max Mark | Additional Guidance   |
|----------|---|----|--|----------|---|
| 16       | d | i  | <ul style="list-style-type: none"> <li>If a 10 megabyte photo was included on the homepage it would increase substantially the time taken to download the webpage.</li> </ul>  | 1 PS     |   |
| 16       | d | ii | <ul style="list-style-type: none"> <li>Ethical</li> </ul>  | 1 PS     | <i>Only acceptable answer</i>                                   |
| 17       | a |    | <p><i>Any two from:</i></p> <ul style="list-style-type: none"> <li><i>Access to libraries</i></li> <li><i>Watch television</i></li> <li><i>Listen to radio</i></li> <li><i>Read newspapers</i></li> </ul>  | 2 PS     |   |
| 17       | b |    | <ul style="list-style-type: none"> <li>Isabel might feel that information is private (and should not be required by an ISP).</li> </ul>  | 1 PS     | <i>Any answer relating to privacy should be accepted.</i>       |
| 17       | c | i  | <ul style="list-style-type: none"> <li>Database</li> </ul>   | 1 PS     | <i>Only acceptable answer</i>                                   |
| 17       | c | ii | <p><i>Any one from:</i></p> <ul style="list-style-type: none"> <li>Username is used as a primary key</li> <li>Uniquely identify the user</li> </ul>  | 1 PS     |   |
| 17       | d |    | <p><i>Any two from:</i></p> <ul style="list-style-type: none"> <li>Chat – both parties must be online at the same time, but with Newsgroups you can pick up the messages at any time.</li> <li>Newsgroups – you normally need to sign-up for a particular newsgroup, but with chat you can join in any chat without signing-up.</li> <li>Newsgroups on a particular topic, chat can be on variety of topics</li> <li>Newsgroup – group conversation, chat can be private 1:1</li> <li>Other acceptable differences should also be accepted.</li> </ul> | 2 KU     | <i>Need explanation for both chat and newsgroup for 1 mark.</i> |

| Question                                    |   |    | Expected Answer/s  | Max Mark    | Additional Guidance            |
|---|---|----|--|-------------|--------------------------------|
| 18  | b |    | <i>Any two from:</i> <ul style="list-style-type: none"> <li>• Transmission Control Protocol</li> <li>• Internet Protocol</li> </ul>  | 2 KU        | <i>Only acceptable answers</i> |
| 18  | a | i  | <ul style="list-style-type: none"> <li>• Multiplexer</li> </ul>  | 1 PS        | <i>Only acceptable answer</i>  |
| 18  | a | ii | <i>Any two from:</i> <ul style="list-style-type: none"> <li>• To allow multiple data streams</li> <li>• to simultaneously use one communication wire</li> </ul>  | 2 KU        |                                |
| 18  | c | i  | <i>Any one from:</i> <ul style="list-style-type: none"> <li>• Search for particular file type</li> <li>• Rich results templates</li> <li>• Auto completion</li> <li>• Custom ordering of results</li> <li>• Search by language</li> <li>• Search by country</li> <li>• Search by domain</li> </ul> | 1 KU        |                                |
| 18  | c | ii | X = NOT  | 1 PS        | <i>Only acceptable answer</i>  |
|   |   |    | Y = OR   | 1 PS        | <i>Only acceptable answer</i>  |
| <b>Total marks for Section III – Part C</b> |   |    |  | <b>(25)</b> |                                |

[END OF MARKING INSTRUCTIONS]