

4. IT1 SPREADSHEET MODELLING

Questions in Section B of the unit 1 examination will relate to a spreadsheet modelling task carried out by the candidate. The questions will focus on the following areas.

USER REQUIREMENTS
What the purpose of the spreadsheet is?
What are the detailed outcomes? <ul style="list-style-type: none"> • <i>User interface, sheets, features to be used,</i> • <i>Processes including searches sort validations automated processes</i> • <i>Outline calculations and results required</i> • <i>Reports to be printed.</i>
DESIGN and IMPLEMENTATION
Identify and explain the purpose of; <ol style="list-style-type: none"> 1. Labels, data, 2. Formulas Any two from Group A and two from Group B <p>Group A</p> <ul style="list-style-type: none"> – <i>SUM</i> – <i>COUNT</i> – <i>MAX</i> – <i>MIN</i> – <i>AVERAGE</i> – <i>RAND</i> <p>Group B</p> <ul style="list-style-type: none"> – <i>SINGLE IF</i> – <i>MULTIPLE IF</i> – <i>DATE</i> – <i>ROUND</i> <ol style="list-style-type: none"> 3. Multiple sheets and 3D links (<i>Sheets!</i>) 4. Simplification of data entry <ul style="list-style-type: none"> • <i>drop down list boxes</i> • <i>Lists</i> • <i>Spinners</i> • <i>logical True or False or Tick Boxes or Option boxes</i> • <i>lookup or vlookup or hlookup tables</i> 5. Ease of use and professionalism <ul style="list-style-type: none"> • <i>startup user interface</i> • <i>data entry forms</i> • <i>Control buttons should be used to initiate macros. e.g. navigation / print / data transfer</i> 6. Error trapping e.g. <i>validation techniques and error messages produced</i> NOT spinners or lists 7. Processing <ul style="list-style-type: none"> • <i>sorting techniques</i> • <i>Search for specific criteria e.g. single and multiple criteria</i> 8. Appropriate use of graphs <i>such as bar or column graphs, line graphs, pie charts, scatter graphs, pictographs.</i> Must relate to own spreadsheet not general descriptions and must be clearly evidenced in the submitted spreadsheet.

EVALUATION

1. Reflect on what they did or what worked
2. Be **critical** on some aspects of the spreadsheet or system which could be improved
3. Future developments to the spreadsheet or system

GENERAL QUESTIONS ON SIMULATION MODELLING

Candidates should understand and be able to discuss the following;

- Definition of a simulation model.
- Uses of simulation modelling for weather forecasting, car crash analysis and financial forecasting.
- Advantages and disadvantages of using simulation models.
- Issues relating to hardware used for simulation modelling, including parallel and distributed processing.

Spreadsheet evidence for ICT Unit 1

- **Spreadsheet evidence should be restricted to printouts or screenshots in both ordinary and formula view with no annotation other than the headings. The centre is responsible for ensuring that the candidate has not annotated the printouts.**
- **It is up to the candidate to ensure that all features and formulas are readable and visible to the examiner.**
- **The printouts should be attached to the declaration sheet provided by WJEC.**
- **These should then be given to the examinations officer who will give them back to the pupils at the beginning of the examination.**
- **The spreadsheet printouts and declaration sheet, signed by both the teacher and the candidate, must be attached to the candidates script and sent with it to the Examiner notified by WJEC.**

The following is an example of what the portfolio might look like.

Thanks to Wales High School for the use of this spreadsheet.