

# QUTexam class manual

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## 1 Preamble & Compilation

Use the following document class:

```
\documentclass[code=xxx.xxx, seed=yyyy]{QUTexam}
```

And replace “xxx.xxx” with your exam code, and “yyyy” with a random integer (if you want to use randomisation of answers).

Put the QUTexam.cls-file in the same folder as your document, and compile the document with XeLaTeX. This is necessary as PdfLaTeX does not support the required Times New Roman font.

## 2 Document

Use a global questions environment, and put every question after a `\question`-command, which takes an (optional) parameter denoting the number of marks for that question. For instance:

```
\begin{questions}
\question This is a question.
\question[5] This is a question with 5 marks.
\end{questions}
```

### QUESTION 1

This is a question.

### QUESTION 2

This is a question with 5 marks.

(5 marks)

### 2.1 Sub-questions

Questions can be nested two levels deep, for instance:

```

\begin{questions}
\question This is a top-level question.
\begin{questions}
\question This is a sub-question.
\question[3] This is a sub-question with 3 marks.
\end{questions}
\end{questions}

```

### **QUESTION 1**

This is a top-level question.

- (a) This is a sub-question.
- (b) This is a sub-question with 3 marks. (3 marks)

## **2.2 Answers**

Answers can be given using the answers-environment. To prevent the marks to appear on a new line, use the `\printPointsA` or `\printPointsB` command (A for top-level questions, B for sub-questions) (like for QED's in proofs).

```

\begin{questions}
\question This is a top-level question.
\begin{questions}
\question[3] This is a sub-question with 3 marks and answers:
\begin{answers}
\item answer
\item another answer \printPointsB
\end{answers}
\end{questions}
\end{questions}

```

### **QUESTION 1**

This is a top-level question.

- (a) This is a sub-question with 3 marks and answers:
  - (i) answer
  - (ii) another answer (3 marks)

A shorter notation for answers is to use the `\orderedanswers` command. Please note that in between the answers, no white space is allowed at all; you can use `%` to safely break lines, however.

```
\begin{questions}
\question This is a question.

\orderedanswers{{This is the first answer}%
{This is the second answer}%
{This is the third answer}}
\end{questions}
```

### **QUESTION 1**

This is a question.

- (i) This is the first answer
- (ii) This is the second answer
- (iii) This is the third answer

In order to randomise the order of answers, the `\randomanswers` command can be used. The syntax is the same as the `\orderedanswers` command, however it will shuffle the answers randomly, but deterministically according to the seed given in the preamble and the question number. *You have to pick a seed that is difficult to guess.* That is, if the seed is known, then the shuffling of answers for a particular question is known.

## **3 Things to note**

- The QUTexam class does not always handle page breaks as required. It will attempt to break the page on sensible places, but there is no guarantee that questions will not be broken up halfway. If that happens, manual action is required.
- The total number of questions (of the last top-level `questions`-environment) can be printed using the `\numberOfQuestions` command. This will require a second compilation round.
- The total number of marks can be printed using the `\totalPoints`-command. This will require a second compilation round.
- The `\appendix` command is supported: END OF PAPER will be printed, and page numbering will change to Roman numbers, and restart from (i).
- To put pictures outside the sub-questions-indentation, use the `\fullWidth{...}`-command.

**END OF PAPER**