

1 Question Paper Codes

1.1 Question Paper Generation

To discourage cheating in the class, we generate a set of question papers by randomly selecting n questions out of an item-bank of N questions. K such distinct question papers are generated, numbered $0, 1, \dots, K - 1$. We call them *assessment instruments*.

The question paper generator module generates total C question papers which can be categorised into K distinct sets. Each of these C question papers has a distinct question paper number on ranging from $1, 2, \dots, C$. This way, the students will not be able to identify which set their copy of the question paper belongs to. Each question paper will have an empty table called the *response table* on page one which will be used by the student to fill in his answers (choices).

This module will generate a map – called $QP \mapsto AI$ between *question paper code* to *assessment instrument*.

1.2 TA's Job

The TA will note down following:

1. Question paper code for each roll number creating a *roll number* to *question paper code* map $RN \mapsto QP$.
2. the responses into a CSV file corresponding to each student exactly as in the response table.

1.3 Automated Evaluation

The *response rearranger* refers to the $RN \mapsto QP$ and $QP \mapsto AI$ map to extract the assessment instrument for each roll number. Using this, the evaluator rearranges the responses in the order as per the item bank to create a rearranged response for the roll number n , $R'(n)$. This is given to the evaluator for final automated evaluation.