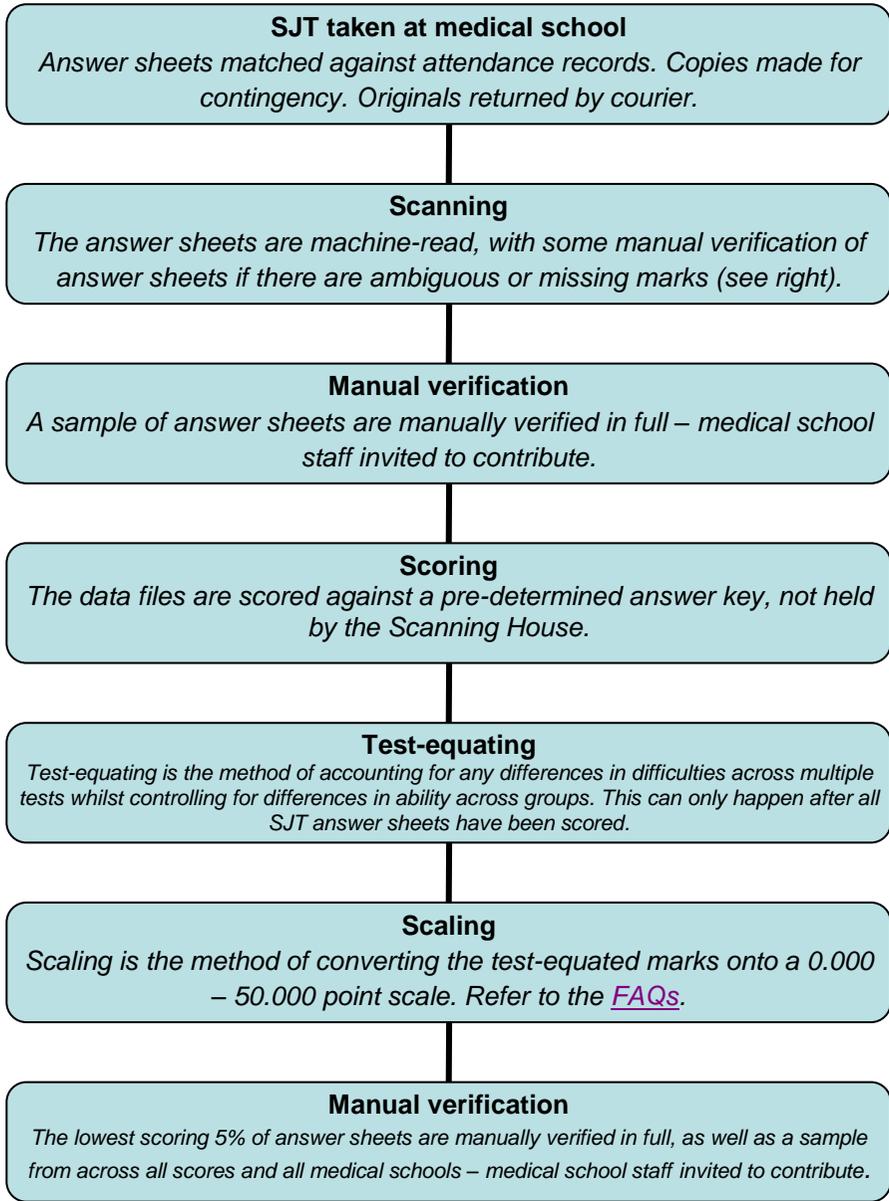# SJT scanning quality controls

MSC Assessment has absolute confidence in the accuracy of the SJT scanned data output. Enhanced quality controls as outlined in this document are in place to ensure accuracy.

Scanning House and Software Company
MSC Assessment commissions UCL Medical School as the Scanning House. Speedwell Software has developed bespoke software set to record for 5 unique ranks for Part One answers, and exactly 3 answers in Part Two, and to require manual intervention in all other cases.

Optimal scanner settings
Scanner greyscale settings are vital where applicant marks are imprecise – they determine the level of manual intervention required to verify genuine applicant errors.

These settings determine the minimum density of an applicant mark which will be read, and the differentiation between two marks to determine if one has been incompletely rubbed out.

SJT taken at medical school
Answer sheets matched against attendance records. Copies made for contingency. Originals returned by courier.

Scanning
The answer sheets are machine-read, with some manual verification of answer sheets if there are ambiguous or missing marks (see right).

Manual verification
A sample of answer sheets are manually verified in full – medical school staff invited to contribute.

Scoring
The data files are scored against a pre-determined answer key, not held by the Scanning House.

Test-equating
Test-equating is the method of accounting for any differences in difficulties across multiple tests whilst controlling for differences in ability across groups. This can only happen after all SJT answer sheets have been scored.

Scaling
Scaling is the method of converting the test-equated marks onto a 0.000 – 50.000 point scale. Refer to the [FAQs](#).

Manual verification
The lowest scoring 5% of answer sheets are manually verified in full, as well as a sample from across all scores and all medical schools – medical school staff invited to contribute.

Interpretation of applicant intention
Answer sheets are machine-read, but manual verification is required where applicant marks are imprecise or ambiguous. These are identified by the software as 'scanning errors'.

Two members of staff – one from UCL Medical School and one from MSC Assessment – review these errors and determine whether the answer is intended or not. A sample of changes are later audited by a third person. If in doubt, the decision is taken in the applicant's favour.

Example: The inconsistency in the pencil marks in Q35B and Q35D would be identified by the scanning machine as a 'scanning error'. This answer sheet would then be manually verified at the point of scanning – some are genuine applicant errors.
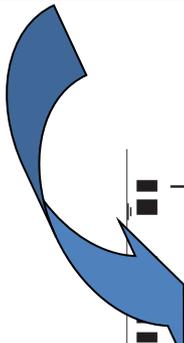
For this example, the recorded answer would be A2, B1, C blank, D3, E4.

Personalised answer sheets

Personalised answer sheets
Answer sheets are pre-printed with applicant details for the first SJT date to which you are registered. If you are one of the small number of who take the SJT on a subsequent date owing to extenuating circumstances, you will use a blank answer sheet, not pre-printed. The SJT answer sheet is matched to the applicant record using the Oriel PIN and paper number, with an additional check that this matches the attendance record.

Timing Marks
'Timing Marks' (also known as the 'Clock Track') are the black rectangles on the side of the answer sheet. Each mark represents a row of data that the machine is looking for. The dashed lines at the top and bottom of the answer sheet also ensure that the scanner cannot malfunction during scanning without the scan operator being aware of a problem. There is a different number of timing marks on the front and back of the answer sheets to ensure that a sheet cannot be scanned 'upside down' without detection.

Situational Judgement Test

Use pencil only
If not pre-printed, write your Oriel PIN and Paper Number in the boxes then mark each number in the grid below that box (see example).

Name:

Medical School:

Example:

ORIEL PIN   PAPER NO.

PART ONE (questions 1 to 47)
Marking Instructions
- Fill in the boxes to indicate your chosen ranking for each option, for each question you must select 1 through 5 only (in your chosen sequence). For example, the sequence C, A, E, D, B should be filled in like this:
- Use a 2B or HB pencil only.
- Do not make any stray marks on the sheet.

please turn over

Software checks during scanning
The scanning software is set to look for not just the number of marks within each row and column, but also by combination of rows and columns ie by question. This means that the machine will stop and require manual intervention if there is a mark in both 1A and 1C. Typically around 25% of answer sheets are manually verified in part at the point of scanning – many of these are genuine applicant errors, others are changed at the point of scanning.

The rules around interpreting ambiguous marks have been agreed in advance (eg is it a genuine tie, or is one of the answers intended to be erased?). These are upheld for verification at the point of scanning, and again in the two subsequent stages of manually verifying answer sheets in full. Decisions are taken by two members of staff (one from UCL Medical School, one from the MSC Assessment), and the changes are audited by a third person.

Answer sheet design
Design decisions include placing the number inside the box to be completed (rather than above the box); requiring a line through the box rather than a circle (which takes longer to fill in); answering numbers in columns (top to bottom) rather than rows (right to left); spacing between columns, question numbers and Most/Least, First/Last instruction.

Total marks and missing marks
The precise number of questions in Part One (two thirds) and Part Two (one third) may vary each year. On an answer sheet with 47 ranking questions (Part One) and 23 multiple choice questions (Part Two), there are 1,379 answer boxes to be read by the scanner. A fully completed answer sheet will have a total of 304 answers recorded – 235 in Part One and 69 in Part Two.

Enhanced checking of double-sided answer sheets
The barcode pre-printed on the back of your answer sheet contains your Oriel PIN. This provides an additional check that both sides of your answer sheet have scanned correctly, and are matched correctly to you on the data file.

PART ONE continued

	Most Least		Most Least		Most Least		Most Least		Most Least
26	A B C D E	**31**	A B C D E	**36**	A B C D E	**41**	A B C D E	**46**	A B C D E
27	A B C D E	**32**	A B C D E	**37**	A B C D E	**42**	A B C D E	**47**	A B C D E
28	A B C D E	**33**	A B C D E	**38**	A B C D E	**43**	A B C D E		
29	A B C D E	**34**	A B C D E	**39**	A B C D E	**44**	A B C D E		
30	A B C D E	**35**	A B C D E	**40**	A B C D E	**45**	A B C D E		

barcode: * 130635 *

PART TWO (questions 48 - 70) Fill in THREE boxes out of the eight available for each question.
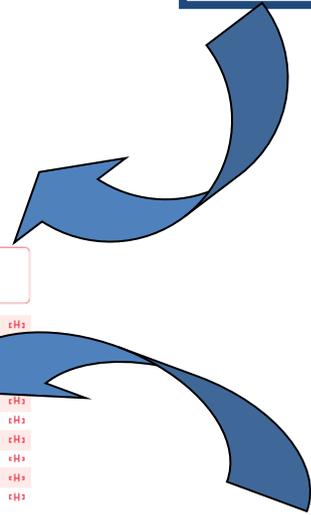For example, A, D, E should be filled in like this: ▬ ɪBɪ ɪCɪ ▬ ▬ ɪFɪ ɪGɪ ɪHɪ

48	A B C D E F G H	61	A B C D E F G H
49	A B C D E F G H	62	A B C D E
50	A B C D E F G H	63	A B C D E
51	A B C D E F G H	64	A B C D E F
52	A B C D E F G H	65	A B C D E F G H
53	A B C D E F G H	66	A B C D E F G H
54	A B C D E F G H	67	A B C D E F G H
55	A B C D E F G H	68	A B C D E F G H
56	A B C D E F G H	69	A B C D E F G H
57	A B C D E F G H	70	A B C D E F G H
58	A B C D E F G H		
59	A B C D E F G H		
60	A B C D E F G H		

ORIEL PIN

Part 1 and Part 2 questions
There is a straight line break between Part One (ranking) and Part Two (multiple choice).

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