

Bar Bender & Fixer Intermediate Trade Test Mock Practical Test Paper

此文件關於鋼筋屈紮工工藝測試考題。如有需要索取此文件的中文版本，請致電 2100 9000 與香港建造業工藝測試中心聯絡。

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Intermediate Trade Test Mock Paper

Trade	:	Bar Bender & Fixer
Grade	:	Semi-skilled worker
Test Content	:	<p>In accordance with the Working Instructions and Drawings provided, complete the following sections:</p> <ol style="list-style-type: none">1. Fix a reinforcement structure of column (C1), wall (W1) and slab (S1) using reinforcement bars provided; Concrete Cover: Column – 40mm Wall – 25mm Slab – 25mm2. Use machinery to cut and bend a Y10 / Y12 reinforcement bar into U shape; and3. Use a bending machine to bend a Y16 / Y20 reinforcement bar.
Duration	:	3 Hours
Notes	:	<ol style="list-style-type: none">(1) Candidates should read the attached “Notes to Candidates” before commencement of work and comply with the requirements conveyed therein.(2) The test paper consists of 8 pages. Candidates must fulfill all following conditions in order to pass the test:<ul style="list-style-type: none">• Score at least 60 marks out of 100 in technical skill assessment module, without critical technical nor craftsmanship mistakes;• Score at least 6 marks out of 10 in safety assessment module; and• Complete the whole test within time limit.(3) For marking scheme and score weighting of the test, please refer to “Introductory Booklet of Bar Bender & Fixer Intermediate Trade Test”.

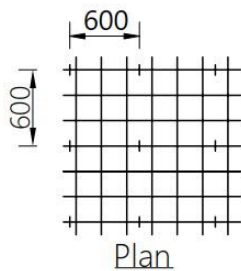
Construction Summary

Spacer

Slab & Staircase :-

Bottom Steel-Use plastic spacer, at max. allowable 600 mm in both directions.

Top Steel- Use steel chairs, at intersection & max. allowable 600mm spacing in both directions.

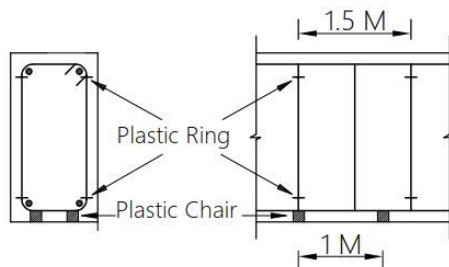


Beams :-

Bottom & Side spacer- main bar $D \leq 25$:-

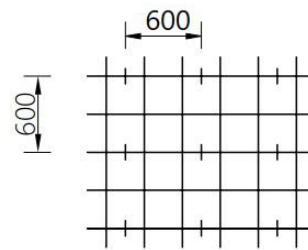
Bottom spacer- Use plastic chair type spacer, 2 Nos. per set, 1 set per 1M run of beam.

Side spacer-Use plastic ring type spacer, clipped on stirrups, 4 Nos. per set per 1.5M run of beam.



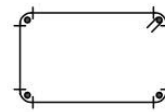
Wall :-

Use ring type plastic spacers, clipped on horizontal bars. Spacing 600, horizontally and vertically, for each wall face.



Column :-

Use plastic ring type spacer, clipped on binder.



Rectangular column
8Nos. per set



Circular column
6Nos. per set

For longitudinal bars

$D \leq 20$, one set at 1 M max. spacing

$D > 20$, one set at 1.25M max. spacing

Securing of Reinforcement (The wire ends exposed to concrete cover not more than 5mm)

Slab & Staircase :-

- # Secure all edge intersections of panels
- # Secure every alternate intersections inside the panels, or closer.

Beam stirrups & Column binders :-

- # Secure longitudinal bars at corners, hooks & bends of stirrups & binders at all intersections.
- # Secure longitudinal bars other than above at alternate intersection with stirrups & binders, or closer.

Wall reinforcement :-

- # Secure the top horizontal bar below floor level of each lift at all intersection with vertical bars.
- # Secure other bars at alternate intersections, or closer.

Cantilever slab & Canopy reinforcement:-

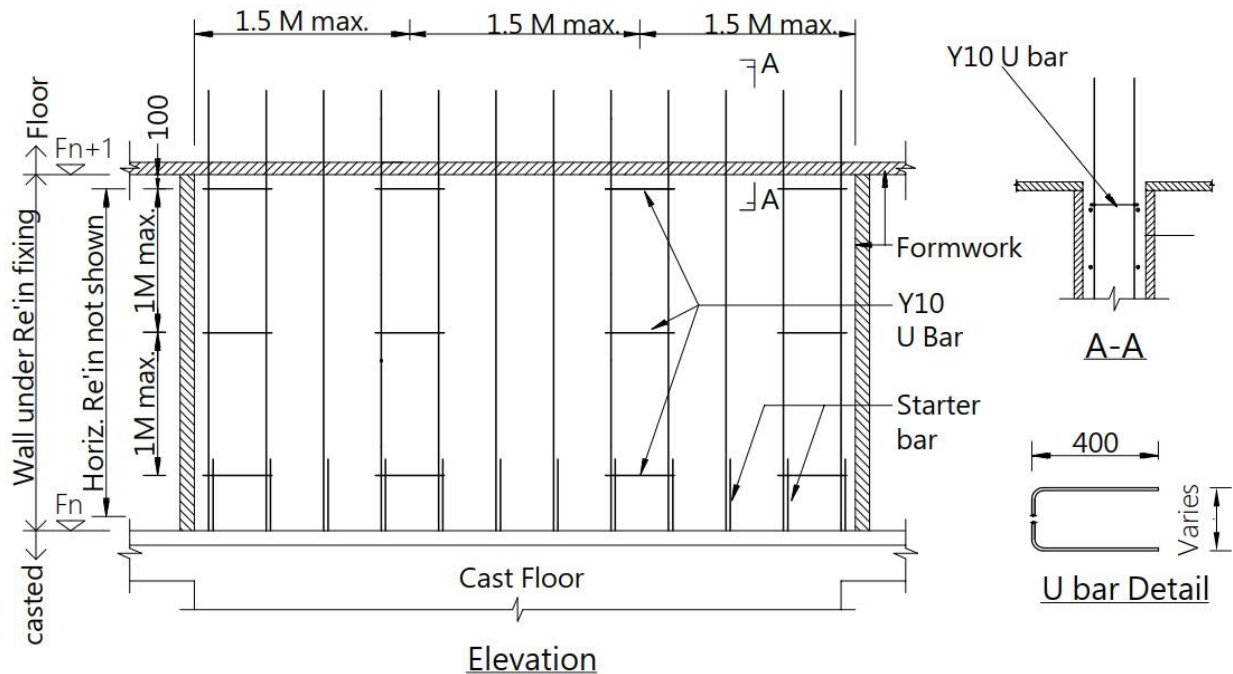
- # Secure all intersections.

Steel bar lapping :-

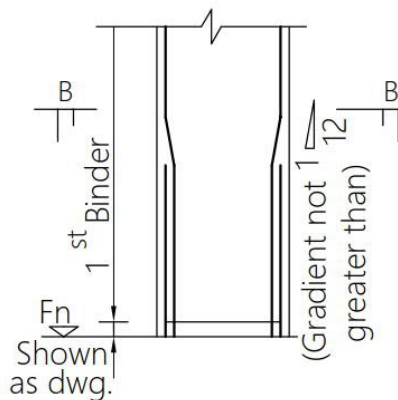
- # At least two secure points.

Not to Scale
All Dimensions are in mm

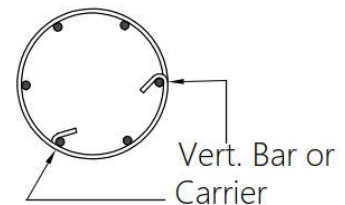
Fixing of wall reinforcement : -



Column Fixing

Sec B-B

- Starter from below
- ⊕ New vert. Bar



Circular Column

Mechanical operation : -

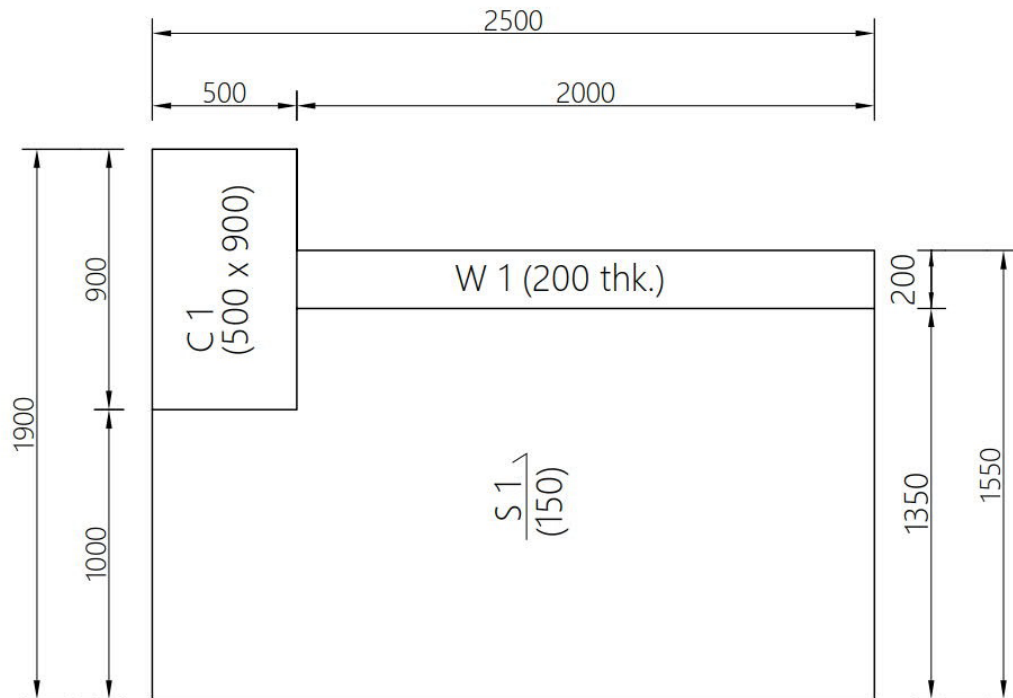
- # Handling of bar machine should comply with the operation manual.
- # Candidates carry out test machines, draw marking, and during the operation of the machine, the hand cannot enter or stay in the red area.

Working off the ground : -

- # Candidates must use and move the ladder provided by the workshop correctly.

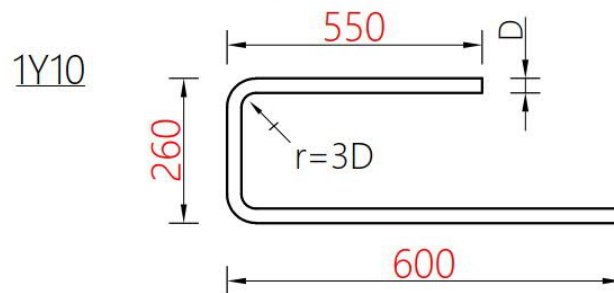
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All Dimensions are in mm

Test 1 : Fixing of Reinforcement

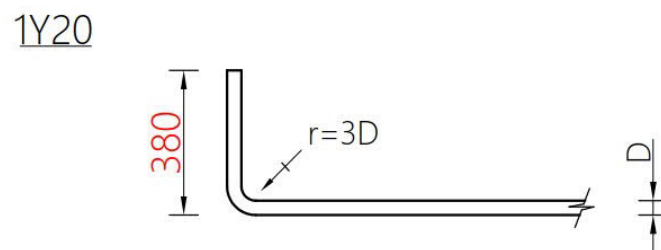


Plan

Test 2 : Cut & bend an U shape rebar

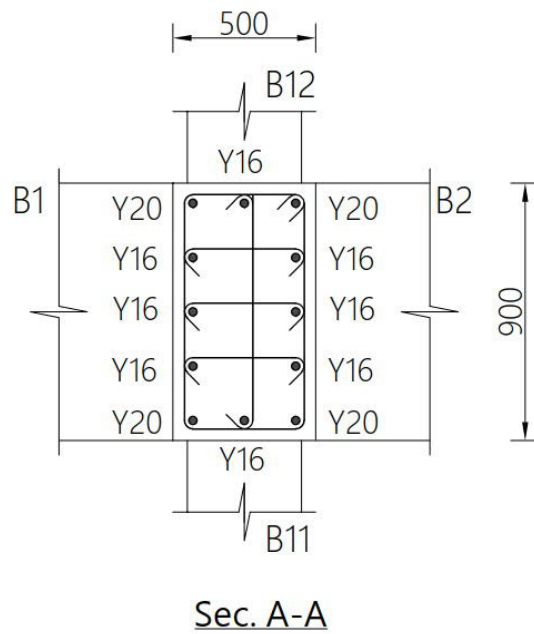
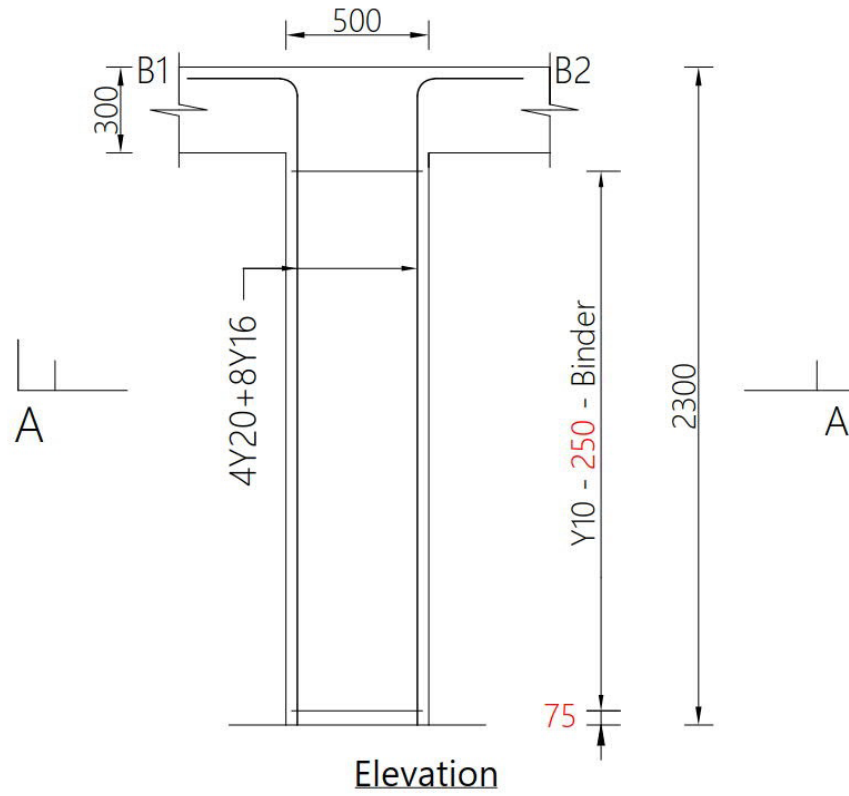


Test 3 : Bend a single hook rebar



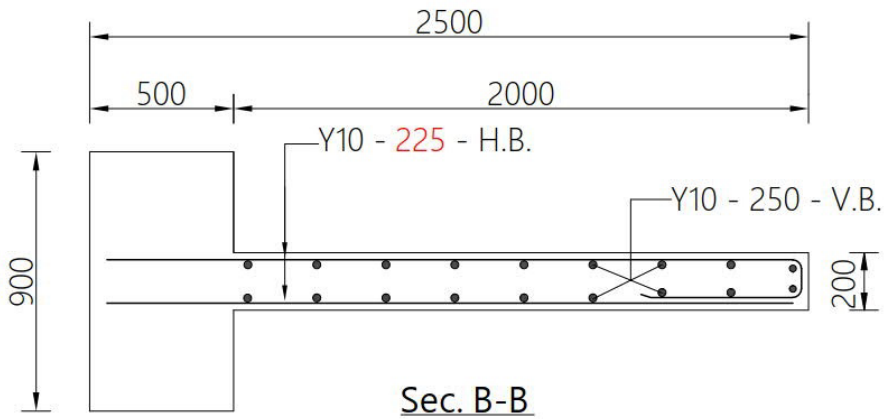
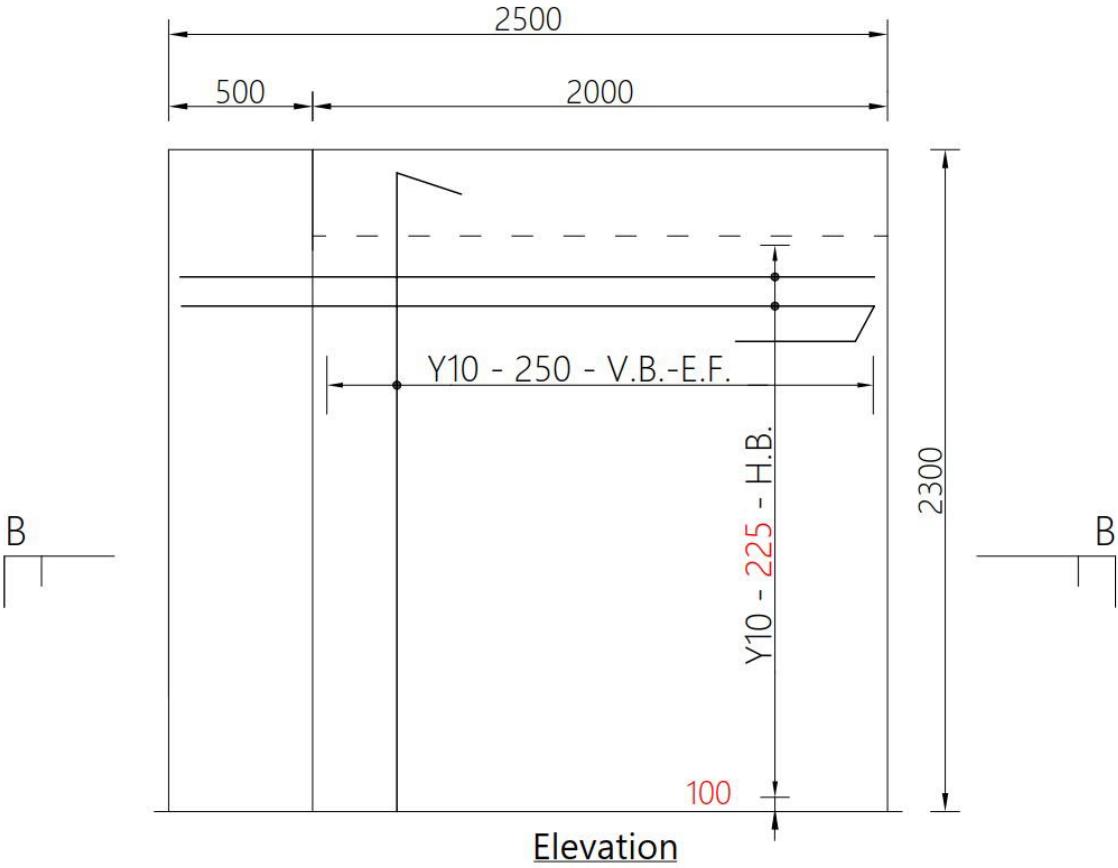
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All Dimensions are in mm

Test 1 : Column



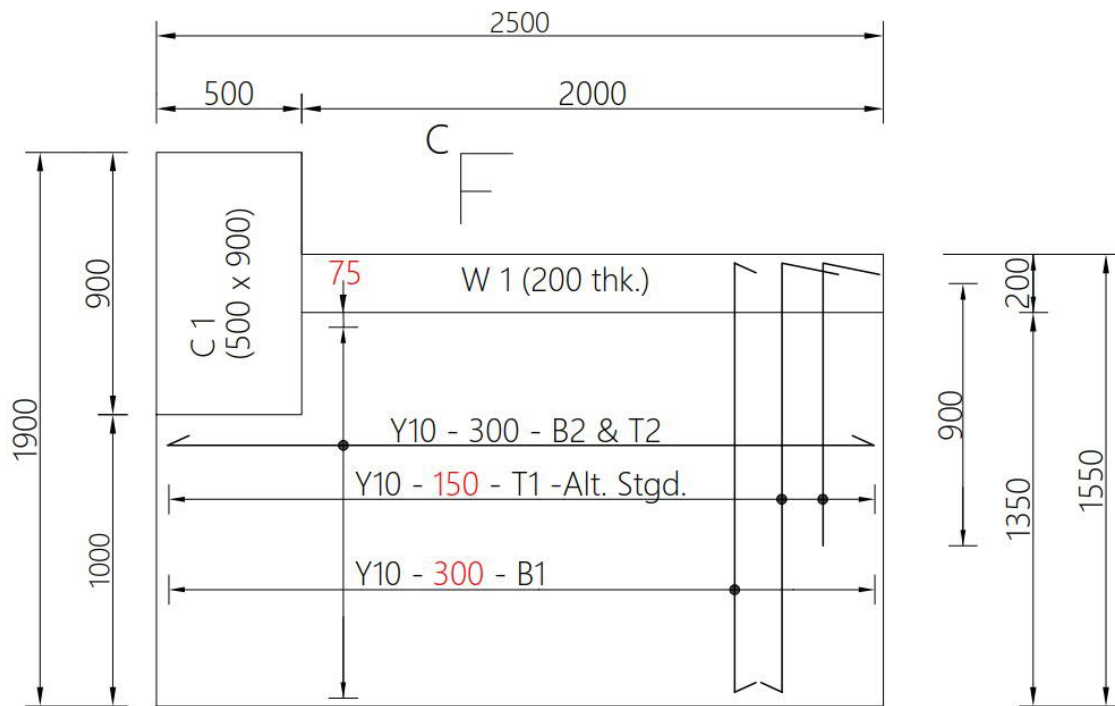
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All Dimensions are in mm

Test 1: Wall

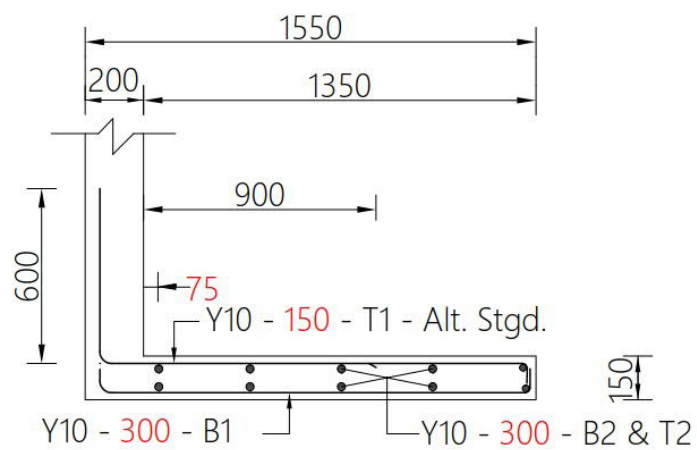


Not to Scale
All Dimensions are in mm

Test 1 : Slab



Plan



Sec. C-C

Not to Scale
All Dimensions are in mm

Notes to Candidates:

1. Candidates must read the test papers carefully. Should there be any enquiries, candidates should contact the invigilators in charge as soon as possible.
2. The marking scheme is based on the following criteria :
 - a) Understanding of drawing and specification
 - b) Preparation works before commencement of test
 - c) Working procedures, accuracy, quality and progress of works
 - d) Proper handling and use of materials
 - e) Proper use of tools and equipment
 - f) Housekeeping upon completion of test
 - g) Undertaking of safety precautions
3. Candidates should study the drawings and specifications attached to the test papers, if any, before the test begins.
4. Candidates should carry out the work according to the test papers, working drawings and specifications provided.
5. Candidates must bring their own safety shoes. Other safety equipment will be provided by the trade testing centre. Candidates must take all necessary safety precautions to ensure work safety.
6. All tools and materials required to accomplish the test will be provided by the trade testing centre. Candidates should check and ensure their adequacy and quality. Candidates shall use the tools and materials properly in due compliance with the trade practice. All the tools must be returned to the trade testing centre after the test. The candidates may ask the invigilator for any problems.
7. Candidates must handle and move the tools and materials unaided during the course of the test, and carry out the associated works.
8. All candidates must stop their work when time is up.
9. Candidates must return the test papers to the invigilator after the test. Removal of any test paper from the testing venue is prohibited.
10. Invigilator will take photos periodically during the test.
11. All forms of bribery and corruption are strictly prohibited and, should there be any, will be reported to the ICAC.

In the event that the candidate fails to take any necessary safety precautions, works in any dangerous situations, and / or makes critical mistakes, he / she is deemed to fail the practical tests.