

Trade Test Seminar

Intermediate Trade Test for Metal Scaffolder

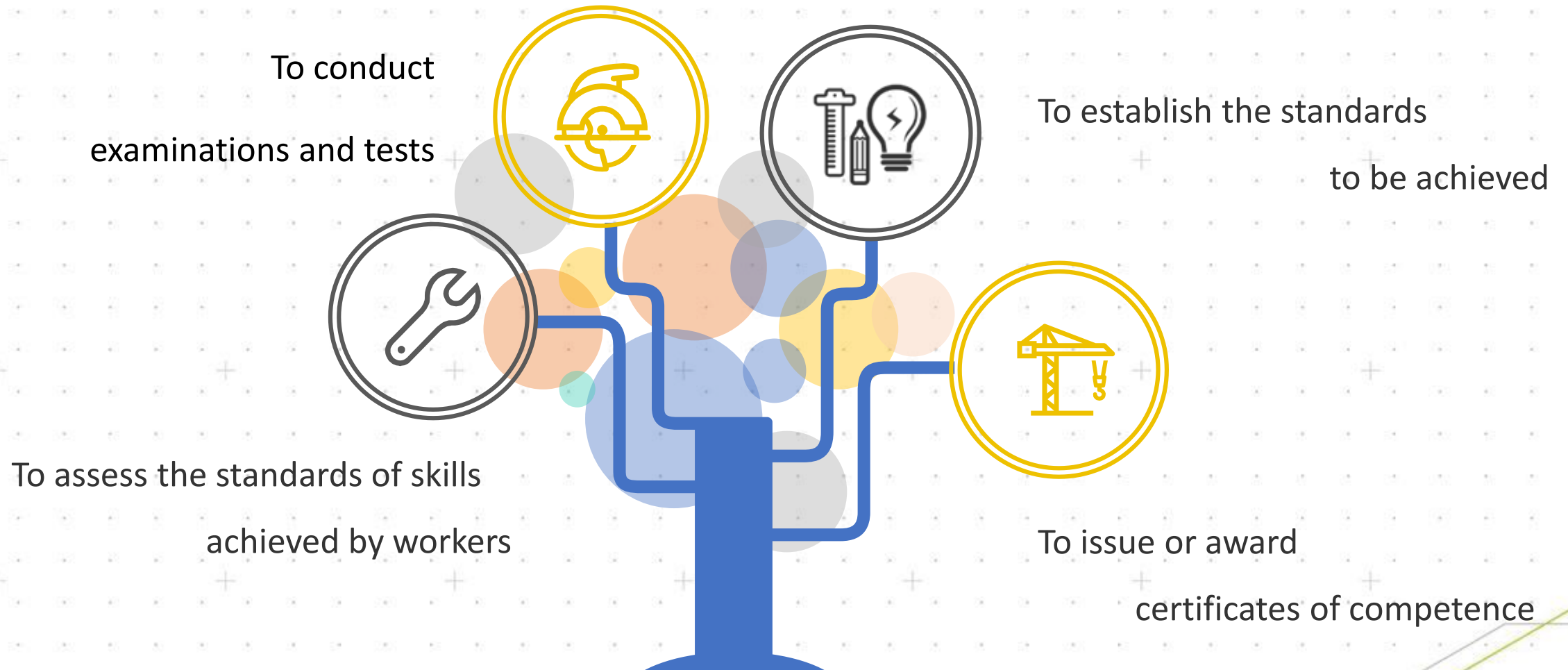
Mark Leung - Supervising Instructor
HKCITTC
2020/10/18

Agenda

1. Introduction of Trade Testing
2. Application Requirements of Trade Test
3. Trade Test Procedures
4. Content of Intermediate Trade Test for Metal Scaffolder
 - 1) Written Test Content
 - 2) Practical Test Content
 - 3) Trade Testing Workshop and Mock-up
 - 4) Major Equipment & Tools, Safety Tools and Materials List
 - 5) Common Mistakes
5. Candidate Resources
6. Q&A Session



1. Introduction of Trade Testing - Purposes



1. Introduction of Trade Test - Categories of Trade Tests and Nos. of Candidates



Civil and Building Construction Trade Test

Types of Trade Tests : 76
Types of Intermediate Trade Tests : 47



Construction-related Electrical and Mechanical Trade Tests

Types of Trade Tests : 15
Types of Intermediate Trade Tests : 12



Certification Tests for Machineries and Cranes Operation

Construction Crane Operators (Gondola)
Operator of Builder's Lift



Total Nos. of **Candidates** in 2019 * **20,915**

*Including Civil and Building Construction Trade Test, Construction-related Electrical and Mechanical Trade Tests and Certification Tests for Machineries and Cranes Operation (Gondola and Builder's Lift)

2. Application Requirements of Trade Test



Recognised bridging
course for trade test

2 Trade Test
Opportunities
for each Course

ITT



1. Hong Kong Residents
2. Holding Valid Safety Card
3. Fulfil **work experience** requirement / **recognised bridging course for trade test**

Work Experience in Hong Kong

- At least **2 years'** relevant work experience

Documentary Proof(s) of Work Experience:

- Documentary Proof from Employers; and/or
- Declaration or Oath/ Affirmation made at one of the Home Affairs Enquiry Centres; and/or
- Specified Form signed by the Chairman/ Vice-chairman of one of the recognised labour unions

TT

1. Hong Kong Residents
2. Holding Valid Safety Card
3. Fulfil **work experience** requirement / **recognised bridging course for trade test**

Work Experience in Hong Kong

- At least **4 years'** relevant work experience; or
- Possessing corresponding **ITT qualification** + at least 2 years' relevant work experience

Documentary Proof(s) of Work Experience:

- Documentary Proof from Employers; and/or
- Declaration or Oath/ Affirmation made at one of the Home Affairs Enquiry Centres

(Documentary proof issued by recognised labour unions is NOT accepted for TT application)

* NOT applicable to Certification Tests for Machineries and Crane Operation

3. Trade Test Procedures

Key Points to Note



Present valid Green Card
攜帶有效平安卡



Bring your own Safety Shoes
自備安全鞋

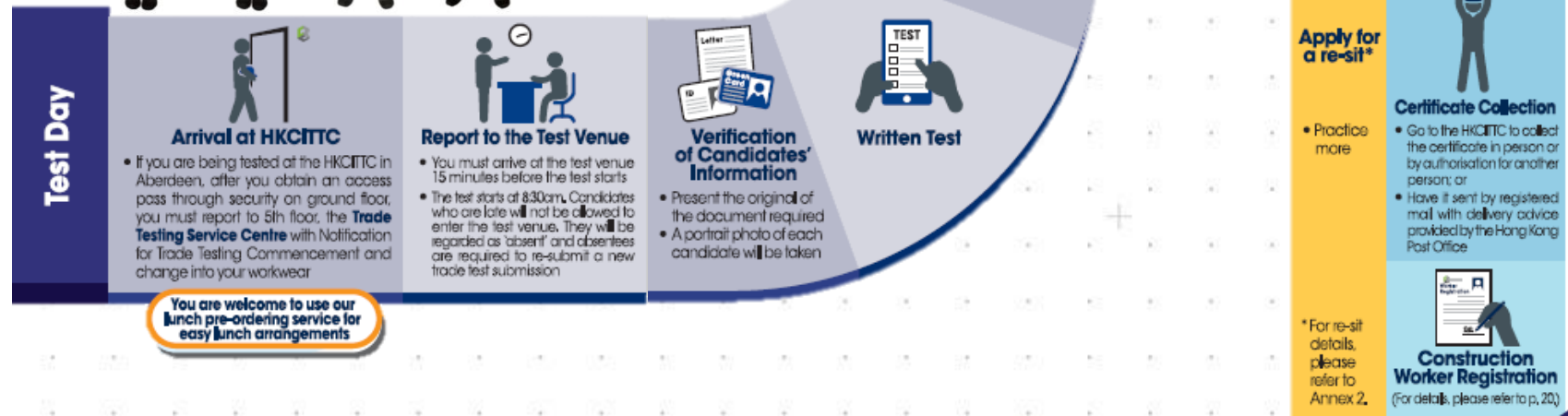


Arrival Time for Registration on L5e Service Centre
到達L5e服務中心登記時間

Appropriate
Work wear



Watch the Video !



4. 金屬棚架中級工藝測試 (中工)

Intermediate Trade Test for Metal Scaffolder

筆試
Written Test
限時30分鐘
Time Limit
30 Minutes



(由2020年1月1日起所有工藝測試均設筆試)
(Written Test session applies to all trade test & intermediate trade test from 1 Jan 2020 onwards.)

實務試
Practical Test
限時3小時
Time Limit 3 Hours



4.1 筆試內容 Written Test Content

筆試 Written Test

測試限時 Time Limit	30分鐘 30 Minutes
測試內容 Test Content	10條選擇題 10 Multiple Choice Questions
合格要求 Passing Requirement	答對6條或以上為合格 Answer 6 (or above) questions correctly will be awarded a “pass”



筆試範疇

Scope of Written Test

- ✓ 相關工種項目的技術知識 Understanding on trade skill
- ✓ 相關工具及器械的應用知識
Application knowledge of relevant tools and equipment
- ✓ 建造安全知識 Safety knowledge
- ✓ 工種相關的法例及行為守則
Industry practice and code of conducts
- ✓ 職業道德 Ethics



4.1 筆試內容參考資料

Written Test Reference Material



HONG KONG CONSTRUCTION INDUSTRY TRADE TESTING CENTRE
香港建築業工藝測試中心

金屬棚架工中級工藝測試（中工）
技術知識測試（筆試）內容參考資料

金屬棚架工中級工藝測試（中工）

技術知識測試（筆試）內容參考資料

準備筆試參考內容

本資料的以下內容均只作準備中工技術知識測試（筆試）的參考用途：

1. 根據英國標準規格，金屬棚架所用鋼管的外直徑是 48.3 毫米。
2. 大橫杆的水平總偏差不可多於 50 毫米。
3. 直杆的垂直總偏差不可多於 50 毫米。
4. 棚架內的上落通道，兩個連續着地點之間的垂直距離不應超過 9 米。
5. 連牆器之間的上下距離，不應超過 8.5 米。
6. 以重疊法連接斜杆，重疊長度最少須有 300 毫米。
7. 工作台的平面斜杆應搭設在大橫杆下。
8. 搭式通架的高度如超過與底邊長度規定比率時，須使用連牆器，連牆器應每隔 6 米高便要裝置。
9. 坡度超過 1:10 便應檢查地基以確保棚架的穩定性。
10. 底掌的作用是防止直杆下陷。
11. 直杆不垂直會影響棚架的載重力度。
12. 搭建專利系統棚架，須依照生產商的指示去裝嵌各項組件。
13. 鋪掛在棚架上的尼龍網應具阻燃特性。
14. 棚架上工作台所鋪設的木板，厚度最少為 25 毫米。
15. 「表格五」須由合資格的人填寫。
16. 使用鋼索(繩索)埋繩吊運鋼管，一般應用 2 條鋼索。
17. 根據《防止賄賂條例》，「利益」的定義包括禮物、借貸和服務。
18. 雷暴天氣情況下於室外搭或拆金屬棚架的風險最高。
19. 存放金屬棚架組件時，管料須妥善地堆放及捆扎，以防遇雷滾動，產生危機。

注意事項

本資料的所有內容均只作準備測試的參考用途，並不涵蓋全部測試內容，請考生參閱相關的正式測試文件。測試內容設有不同版本，內容包括但不限於工具、物料、設備、圖則、施工細節或程序及不同的模擬工地環境等的差異，考生於進行測試時應以正式的測試文件為準。本資料內容如有任何改變、更新或刪除，讀者不會另行通知。

© 2020 版權由建築業議會所有。

版本：IML-SM-CN-01



English Version of
Written Test Reference Materials
will be available soon!

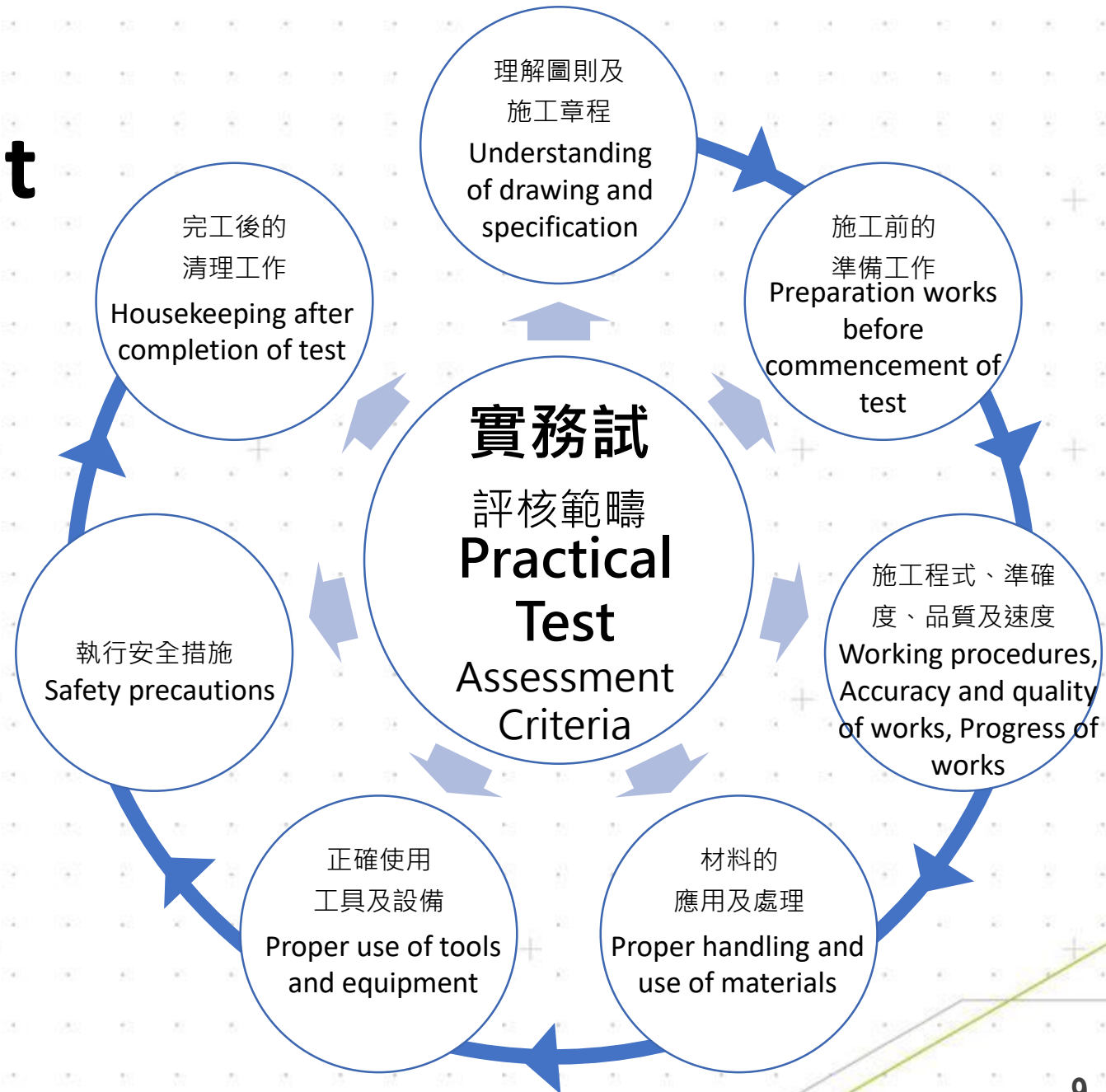


4.2 實務試內容

Practical Test Content

Points to Note:

1. The candidate must read the “Notes to Candidates” in the Annex before starting;
2. **Candidates must fulfill the following requirements to be awarded a pass in the test:**
 - i. **Get a Pass in the Skill Assessment Part** (get 60 marks or above out of 100 marks, and without serious technical defects); and
 - ii. **Get a Pass in the Safety Assessment Part** (get 6 marks or above out of 10 marks); and
 - iii. Complete the test within the **time limit**.
3. Full mark of the test is 100 marks. The passing mark is 60 marks.



4.2 實務試內容（續）

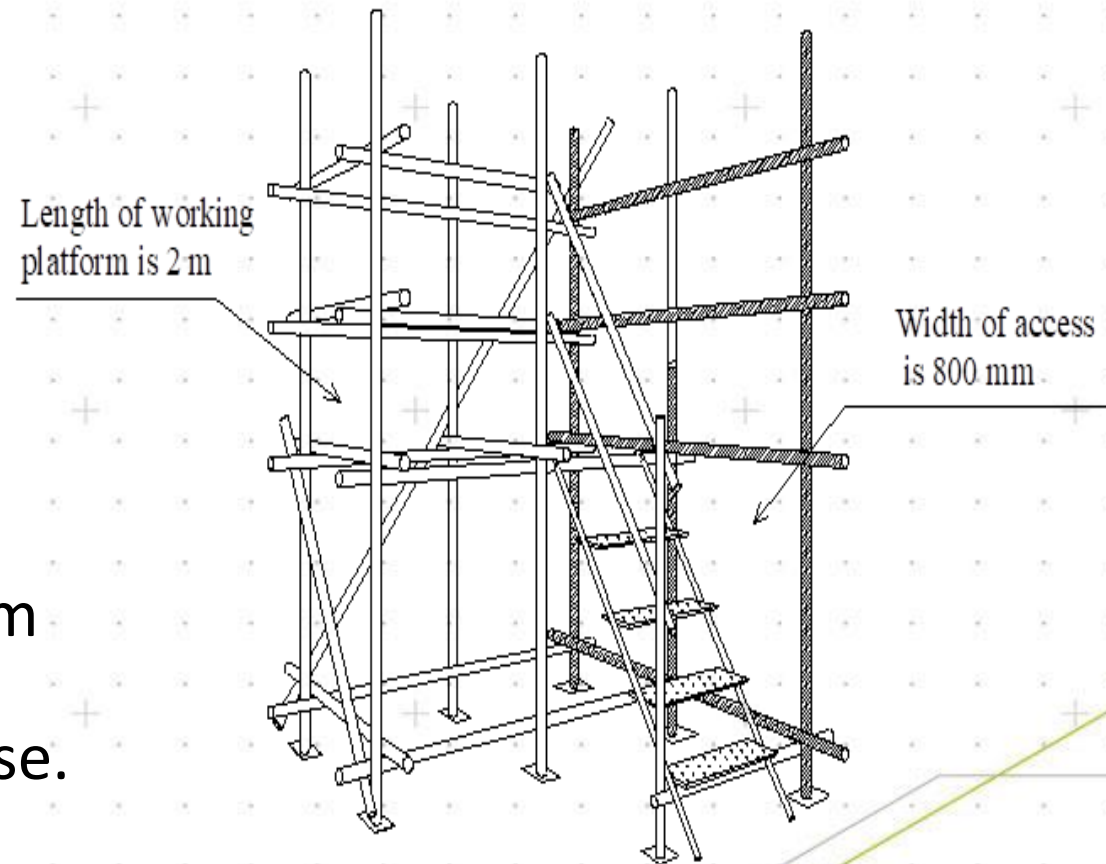
Practical Test Content (Continued)

Duration: 3 hours

Test Content:

Complete the following items at designated location :

- 1) Continue to erect a tubular scaffolding :
(approximately $2.0\text{m} \times 0.85\text{m} \times 2.5\text{m}$)
 - i. Choosing of correct fittings;
 - ii. Continue to erect a tubular scaffold from the existing structure;
 - iii. Set up a working platform and a staircase.

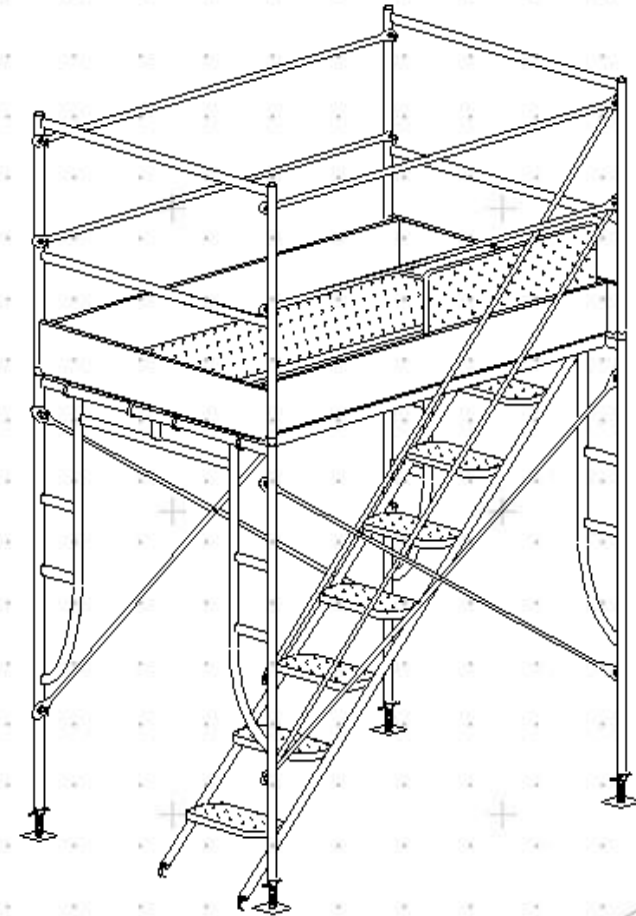


4.2 實務試內容（續）

Practical Test Content (Continued)

- 2) Assemble of a plane frame scaffold :
 - i. Choosing of suitable plan frame and fittings;
 - ii. Set up a plan frame scaffold;
 - iii. Adjust the scaffold to level.

- 3) Lift up materials :
 - i. Install lifting equipment;
 - ii. Tying to lift up tubes and bucket.



4.3 測試工場 Trade Testing Workshop

圖片只供參考
The photos are for reference only.



4.3 測試工場 (續)

Trade Testing Workshop (Continued)



4.3 測試工場 (續)

Trade Testing Workshop (Continued)



4.3 成品樣板 Mock-up

圖片只供參考
The photos are for reference only.



4.3 成品樣板 (續) Mock-up (Continued)

圖片只供參考
The photos are for reference only.



4.4 主要設備工具表

Major Equipment and Tools List

序號 Item	名稱 Name	圖片 Photo	序號 Item	名稱 Name	圖片 Photo
1	尖尾卜 Ratchet wrench		2	21#扳手 Combination spanner	
3	平水尺 230mm 230mm Spirit Level		4	平水尺 600mm 600mm Spirit Level	
5	勞工手套 Cotton gloves		6	5米拉尺 5m Measuring Tape	



4.4 主要設備工具表（續）

Major Equipment and Tools List (Continued)

序號 Item	名稱 Name	圖片 Photo	序號 Item	名稱 Name	圖片 Photo
7	工具袋及腰帶 Tool pocket with belt		8	石筆 Slate pencil	

4.4 主要安全用品列表

Major Safety Tools List

序號 Item	名稱 Name	圖片 Photo	序號 Item	名稱 Name	圖片 Photo
1	全身式安全帶 Full body safety harness		2	安全繫繩 Lanyard	
3	防墮扣 Fall arrester		4	安全帽及 Y型帽帶 Safety helmet with chinstrap	

4.4 主要物料表

Major Materials List

序號 Item	名稱 Name	圖片 Photo	序號 Item	名稱 Name	圖片 Photo
1	直角扣 Double coupler		2	活動扣 Swivel coupler	
3	內駁芯扣 Expanding joint pin		4	套筒 Sleeve coupler	
5	底座 Base plate.		6	踢腳板扣 Toe-board clamp	



4.4 主要物料表 (續)

Major Materials List (Continued)

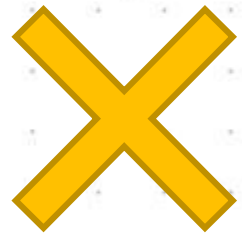
序號 Item	名稱 Name	圖片 Photo	序號 Item	名稱 Name	圖片 Photo
7	踢腳板套 Toe-board guard		8	板料 : Wooden plank : 1) 2.4M 2) 1.5M 3) 1.1M	
9	4mm厚鋼通管 : Tube : 1) 2.8M 2) 2.4M 3) 1.5M 4) 1.2M		10	門架配件 Plane frame scaffold accessories	
11	門架配件 Plane frame scaffold accessories				



4.5 常犯錯誤 Common Mistakes

立杆倒罣

Standard collapsed



經驗不足

Lack of practical experience

工藝生疏

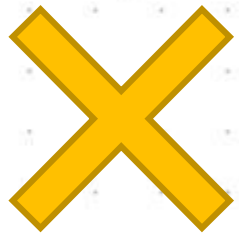
Poor skill



4.5 常犯錯誤 (續) Common Mistakes (Continued)

門架倒靚

Plan frame collapsed



經驗不足

Lack of practical experience

工藝生疏

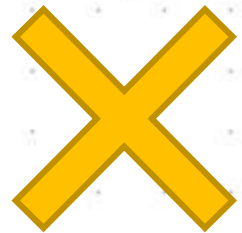
Poor skill



4.5 常犯錯誤 (續) Common Mistakes (Continued)

棚上墮物

Objects falling off from scaffold



跌平水尺

Dropped of spirit level

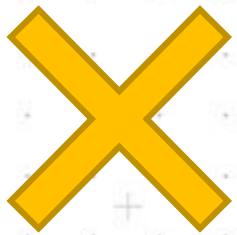


4.5 常犯錯誤 (續)

Common Mistakes (Continued)

不合規格

Non-compliance with
the standard



欠底掌

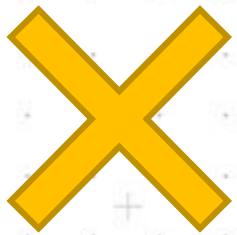
Base plate omitted



4.5 常犯錯誤 (續) Common Mistakes (Continued)

不合規格

Non-compliance with
the standard



錯底掌

Wrong base plate

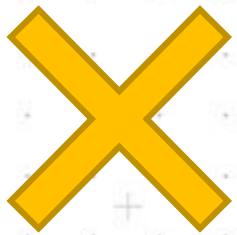


4.5 常犯錯誤 (續)

Common Mistakes (Continued)

不合規格

Non-compliance with
the standard



構件錯位

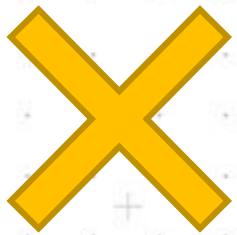
Faults in component
connections



4.5 常犯錯誤 (續) Common Mistakes (Continued)

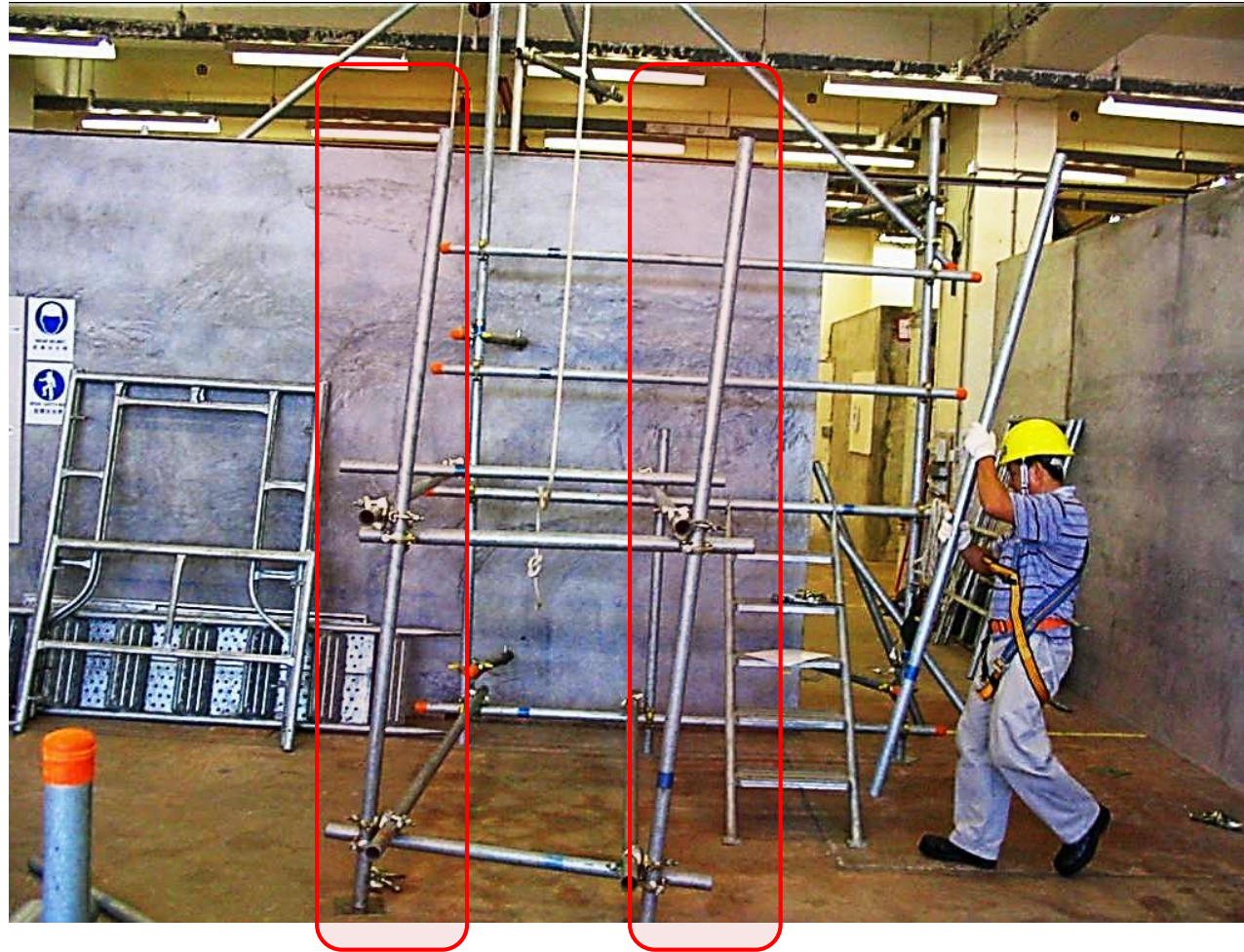
不合規格

Non-compliance with
the standard



直杆不垂直

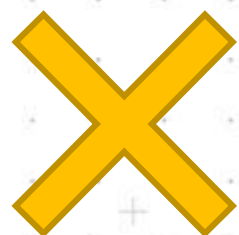
Standards not plumb



4.5 常犯錯誤 (續) Common Mistakes (Continued)

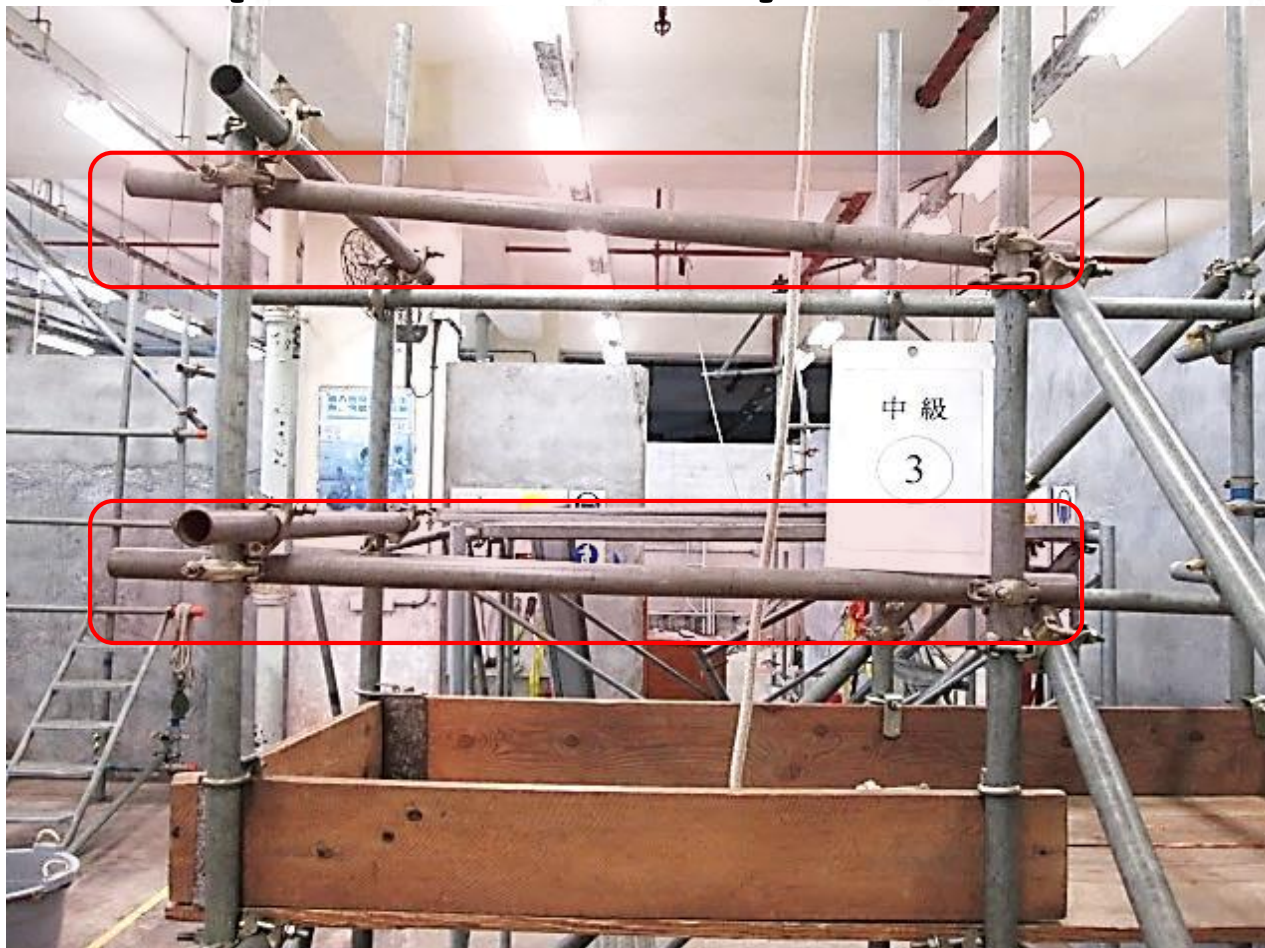
不合規格

Non-compliance with
the standard



橫杆不平

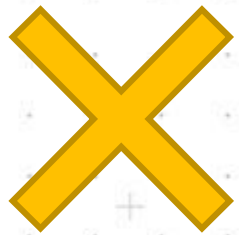
Ledgers not horizontal



4.5 常犯錯誤 (續) Common Mistakes (Continued)

造型出錯

Wrong layout



組合佈置與圖則不符

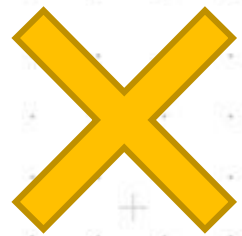
Work done not complied
with drawing/requirements



4.5 常犯錯誤 (續)

Common Mistakes (Continued)

未能完成
Incompletion



經驗不足

Lack of practical experience

工藝生疏

Poor skill



5. Candidate Resources

Quick & Easy

**Trade Test
Application**



TTOA
Mobile APP

Preparation Tips



Trade Test Tips

Must-see
before Test



Trade Test Information

- ✓ Code of Conduct and Dress Code for Candidates
- ✓ Location Map and Transportation Guide



Q&A Session

Please feel free to contact us for any enquiries.

Hong Kong Construction Industry Trade Testing Centre

Tel : 2100 9000

WhatsApp / WeChat : 5720 0071

Email : hkcittc@cic.hk