

Competence-based Professional Assessment (PA) in Mechanical Discipline

Review of results of PA 2020/21

1. Results of 34 competence-based PAs were endorsed by the Qualification & Membership Board in the period between September 2020 and November 2021. 18 candidates passed and the passing rate is 53%.
2. Statistics of not meeting the competence standard is presented below:

Competence Area	Competence	Number of not meeting the standard
Applying Engineering Knowledge	1	14
	2	13
	11	10
Developing Technical Solutions	3	14
	4	15
Managing Engineering Work	5	11
	6	11
	7	12
	12	12
Upkeeping Professional Acumen	8	3
	9	8
	10	6
Writing Assessment	13	0
	13(i)	0
	13(ii)	0

3. The major failure fell into the competency area of “Developing Technical Solutions” (i.e., C3 and C4) amounting to around 90% of failed candidates while 15 out of 16 unsuccessful candidates failed in the Competence C4 “Design or develop solutions to complex engineering problems in accordance with good practice for professional engineering”.
4. The second major failure fell into the “Applying Engineering Knowledge” competence area. A large portion of failed candidates, amounting to close to 90%, underperformed in Competence C1 “Comprehend and apply knowledge of accepted principles underpinning widely applied good practice in professional engineering” and Competence C2 “Comprehend and apply knowledge of accepted principles underpinning good practice for professional engineering specific to Hong Kong.”

5. Below is a summary of the comments giving a glimpse of the reasons for the failure of MCL candidates which are in line with the above observations.

Comments	No. of times appeared in the Assessors' comments of similar nature
.....failed to demonstrate how to apply basic principles from mechanical engineering knowledge.	10
.....unable to provide evidence to apply theory to develop solutions from complex engineering problems.	4

End