



WORKSHOP 3

Unlocking Practising Certificate: Workshop on PCE Candidates



Session: Workshop 3
23rd August 2023



MATRADE Hall,
MATRADE Exhibition & Convention Centre





PROFESSIONAL COMPETENCY EXAMINATION (PCE)

The structure, the format, the syllabi...

Presented by:

Ir. CHEN THIAM LEONG

Position:

Chairman for PCE (Common) Working Committee



Session: Workshop 3a CP Pt. I
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AIM OF THE PROFESSIONAL COMPETENCY EXAMINATION



The Professional Competency Examination will test the candidates within the limits of “**professional engineering services**” as defined by the Engineers Act in the engineering disciplines of civil (& structural), mechanical and electrical engineering (primarily for the CONSTRUCTION industry).

The examination will test the candidate’s knowledge, experience and application of:

- ❖ Regulations and rules of engineering practice by BEM
- ❖ Statutory laws, design codes, regulations
- ❖ Standards of professionalism and ethical behaviour imposed by BEM

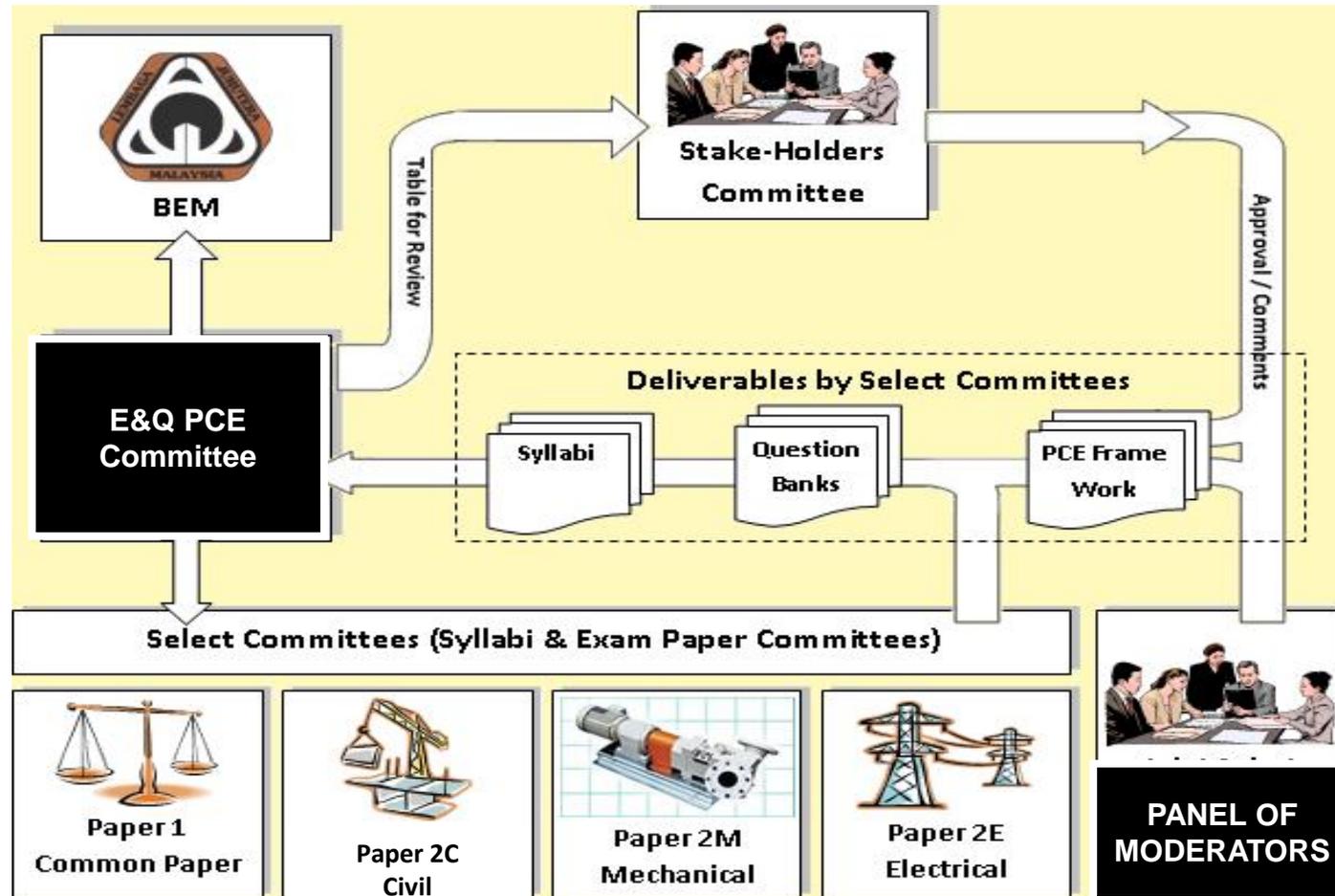


In a nutshell

the Professional Assessment Examination (PAE) tests an Engineer on **WHAT HE KNOWS** *but not on what he does not know* to obtain his PE

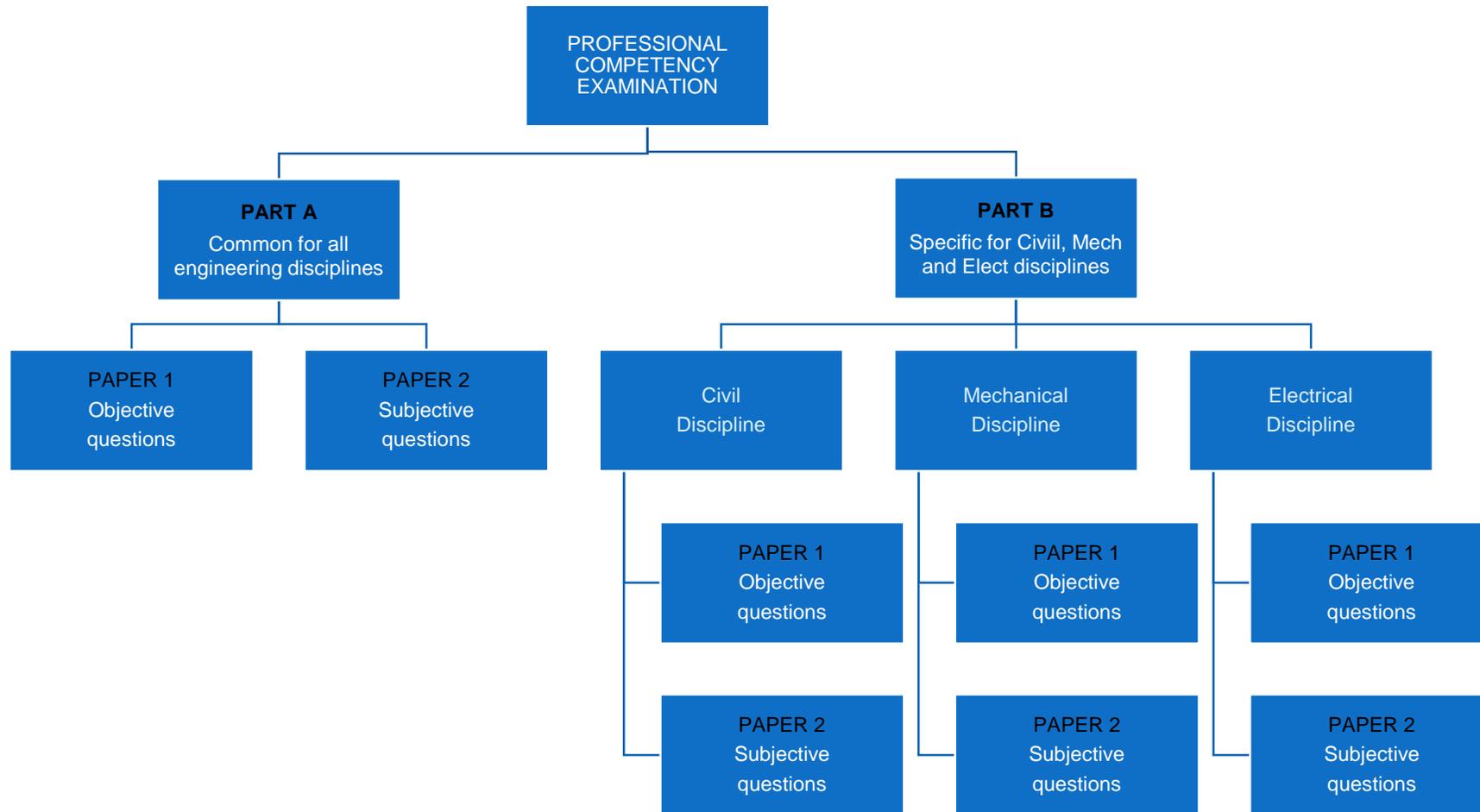
the Professional Competency Examination (PCE) tests a PE on *what he does not know but* **OUGHT TO KNOW** to obtain his PEPC

PROFESSIONAL COMPETENCY EXAMINATION COMMITTEE UNDER E&Q



Confidentiality of the Competency Examination is important

SUMMARY OF THE EXAMINATION SYSTEM



Primarily developed for the Construction Industry

ELIGIBILITY TO SIT FOR THE EXAMINATION



- Professional Engineers wishing to sit for the PCE shall apply to BEM by completing a prescribed form and pay the prescribed fees
- Eligible candidates for the PCE must be a Professional Engineer registered with the Board in the appropriate discipline
- Candidates seeking registration as a licensed **Submitting Person** in the construction industry must have the relevant working experience in the field of engineering which he wishes to practise
- On approval of the candidate's application by the Board, the candidate is allowed to sit for the examination

EXAMINATION REGULATIONS FOR THE PCE



PCE COMPRISES 2 PARTS: PART A & PART B

Regulations for the examination:

- Compulsory to pass both the papers (1 & 2) in Part A and Part B
- Candidates must pass both the papers (1 & 2) for Part A and Part B at one sitting
- If a candidate passes Part A but fails Part B, he is allowed to re-sit the latter, and vice versa
- The 'pass' result for Part A or Part B is valid for 3 years and there is no limit on re-sit attempts on the other (failed) Part within the 3-year period
- After expiry of the 3-year period, the candidate will have to re-sit both Parts again.

PART A – COMMON PAPER

- * To be taken by all candidates
- * Non-technical in nature
- * Tests candidate's knowledge on laws governing the profession, the responsibility of the professional towards the general public and standards of professionalism and ethical behaviour, etc.
- ❖ There are two papers for this Part A – Paper 1 and Paper 2

PART B – PAPER ON INDIVIDUAL DISCIPLINE

- * To be taken by candidates in the relevant discipline in which they are permitted to practise

- * Technical in nature

- * Test candidate's competency within his respective field of practice on :
 - Regulations and rules of practice by BEM
 - Statutory laws, design standards, regulations, etc.

- ❖ There are two papers for this Part B – Paper 1 and Paper 2

GENERAL DESCRIPTION OF THE PCE



COMPRISES 2 PARTS: PART A & PART B

Subject	Time Allocated	Description
<u>PART A</u> Common Paper	<u>Consists of 2 papers</u> Paper 1 (Objective) Paper 2 (Subjective) 1.5 + 1.5 hours	Common paper is to be taken by all candidates. Non-technical in nature to test candidates on knowledge of laws governing the profession, responsibility of a professional towards the general public, standards of professionalism and ethical behaviour, etc. Consists of two papers, namely Paper 1 and Paper 2. Candidates must pass both papers at one sitting.
<u>PART B</u> Paper specific for each discipline	<u>Consists of 2 papers</u> Paper 1 (Objective) Paper 2 (Subjective) 1.5 + 1.5 hrs	Technical paper on Civil & Structural; Mechanical; and Electrical engineering. Candidates to sit for Papers in the relevant discipline they are permitted to practise. Test candidate's competency within his respective field of practice. Consists of two papers, namely Paper 1 and Paper 2. Candidates must pass both papers at one sitting.

FORMAT & STRUCTURE OF THE PCE



PART A		TIME ALLOCATED	FORMAT
Common Paper (For all disciplines)	Paper 1	1.5 hours	40 objective questions. Passing mark 50%
	Paper 2	1.5 hours	Answer 3 out of 5 subjective questions. Passing mark 50%
PART B		TIME ALLOCATED	FORMAT
Civil Paper	Paper 1	1.5 hours	40 objective questions. Passing mark 50%
	Paper 2	1.5 hours	Answer 3 out of 5 subjective questions. Passing mark 50%
Mechanical Paper	Paper 1	1.5 hours	40 objective questions. Passing mark 50%
	Paper 2	1.5 hours	Answer 3 out of 5 subjective questions. Passing mark 50%
Electrical Paper	Paper 1	1.5 hours	40 objective questions. Passing mark 50%
	Paper 2	1.5 hours	Answer 3 out of 5 subjective questions. Passing mark 50%



Applicable for both Part A and Part B - Paper 2:

- ❖ Each Candidate's answer script will be independently marked by 2 examiners.
- ❖ A Candidate will pass or fail in Paper 2 only when both examiners pass or fail him.
- ❖ In the event, one examiner passes him while the other fails him, then a third examiner will be appointed to mark a fresh set of the answer script. The third examiner's result will be deemed as final.



Q & A





PART A – Common Paper 1 & 2

Category	Weightage
Engineers Act & Professional Practice	35%
Common Laws, Local Acts & Local Authorities	30%
Construction Contract Laws	25%
ECP Business & Management	10%

Note: Questions may comprise combination of some or all of the above categories.

Engineers Act & Professional Practice - 35%

Laws & regulations governing the engineering profession in Malaysia

Engineer's responsibility to society and to the public

Professionalism on a conceptual basis, ethical conduct and professional practice

- REA, Regulations, Circulars, LOR, etc

Common Laws, Local Acts & Local Authorities - 30%

Overview of laws having relevance - UBBL/SBO, CCC/CFO/OC, etc

Construction Contract Laws - 25%

Basic knowledge of Contract Laws practised locally with respect to the Construction Industry - CIPAA, CIDB, etc

ECP Business & Management - 10%

An in-depth knowledge of the functions of the consulting engineer during various stages of project implementation - BEM Model Form of Agreement, SOF, etc

Management of ECP business - Companies Act, EPF, SOCSO, etc

PART A: Common Paper 1 - SAMPLE QUESTION



Q1. A local Consultant enters into an agreement with a foreign Contractor to carry out engineering consultancy services for a Turnkey Contract in that country. Mid-way through the project, war breaks out in that country. What is the effect?

- A. The Contract is valid and enforceable
- B. The Contract is frustrated
- C. The Contract is suspended
- D. The Contract is discharged
- E. The Contract is void

[Construction Contract Law]

PART A: Common Paper 1 - SAMPLE QUESTION



Q2. Which of the following statements is/are true?

- a) Only Mechanical PEPCs can submit active fire protection plans
- b) Only Civil or Mechanical PEPCs can submit passive fire protection plans for industrial buildings
- c) PEPCs of any discipline can submit active fire protection plans
- d) Only Electrical PEPCs can submit electrical plans

- A. a)
- B. a) and d)
- C. a), b) and d)
- D. c)
- E. b), c) and d)

[Professional Practice, Local Laws]

PART A: Common Paper 1 - SAMPLE QUESTION



Q3. Which of the following statements is false?

- A. The BEM Scale of Fees is mandatory
- B. A Sole Proprietorship practising as an ECP must be registered with BEM
- C. All ECPs must be registered with BEM
- D. Professional Fees based on man months do not contravene the BEM Scale of Fees
- E. For a private project, a consultant may exclude provision of supervision and hence need not charge the corresponding professional fees

[REA & ECP]

PART A: Common Paper 2 - SAMPLE QUESTION



Q1. A contractor applies for Extension of Time (EOT) before his contract completion period expires. The Contract Administrator does not respond and the original contract completion date is passed. One month later, the Contract Administrator issues a V.O. for additional works to the Contractor. The Contractor refuses to carry out the V.O. works. What can the Contract Administrator do under this situation?

[Construction Contract Law, Common Law]

PART A: Common Paper 2 - SAMPLE QUESTION



Q2. A Consultant has carried out substantial works on a project and the Employer encounters financial difficulties. He suspends the project. On resumption, he terminates the Consultant's employment citing use of in-house consultants to complete the works due to financial constraints. What is the legal effect of the termination and what financial compensation can the consultant seek?

[Construction Contract Law and REA]



Q & A





CP 2 – DO'S & DON'TS





PROFESSIONAL COMPETENCY EXAMINATION (PCE)

Additional Briefing on Paper 2s (Subjective Questions)



PCE TIPS



1. Time Management

Paper 2: 3 Qs in 90 mins = 30 mins/Q.

Choosing the 3 out of 5 Questions to answer

Make full use of the extra 15 minutes given at the beginning, to:-

- i) check that the Question paper consists of 5 legible Questions
- ii) go through all the 5 Questions thoroughly to determine which 3 Qs you choose to answer



PCE TIPS



2. The Do's & Don'ts when answering the Questions

- a) The Questions are set as “THINKING Questions” to test your readiness to perform as a PEPC. Hence, **DO** read the Question carefully and answer to the point.
- b) **DON'T** ‘cut and paste’ wholesale from an open book, document or workshop manual. You can easily miss answering the question completely or even fail to answer the question at all!
- c) Weightage for each sub-question is indicated to guide you on time allocation you should spend on. Hence **DON'T** beat round the bush in your answer as no extra marks will be given.
- d) As a general guide, each question should be adequately answered within one A4 page or at most 1 ½ page.



COMMON PAPER 2



PART A – Common Paper 2

Category	Weightage
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[Construction Contract Law and REA]

PART A: Common Paper 2 – PAST YEAR QUESTION

CASE EXAMPLE elaborating the DO's & DON'Ts



Q3. PEPC X is appointed by Owner Z based on the BEM Model Form of Agreement. By the time construction has begun, Z has persistently defaulted on paying fees to X despite repeated requests for timely payment in accordance with the Consultancy Agreement.

X decides to terminate his services while construction is still on-going.

How should X go about doing so properly and also without risking being counter-sued by Z for causing delay and losses to the project?

(100 marks)

[Common Law - Local Acts, Local Authority; Construction Contract Law and ECP Business & Management]

PART A: Common Paper 2 – PAST YEAR QUESTION

CASE EXAMPLE elaborating the DO's & DON'Ts



Q3. PEPC X is appointed by Owner Z based on the BEM Model Form of Agreement. By the time construction has begun, Z has persistently defaulted on paying fees to X despite repeated requests for timely payment in accordance with the Consultancy Agreement.

(BACKGROUND OF THE QUESTION)

X decides to terminate his services while construction is still on-going.

(ACTION LEADING TO THE QUESTION)

How should X go about doing so properly and also without risking being counter-sued by Z for causing delay and losses to the project?

(THE QUESTION PROPER TO BE ANSWERED)

PART A: Common Paper 2 – PAST YEAR QUESTION

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PART A: Common Paper 2 – PAST YEAR QUESTION



CASE EXAMPLE elaborating the DO's & **DON'Ts**

Q3. PEPC X is appointed by Owner Z based on the **BEM Model Form of Agreement**. By the time construction has begun, Z has persistently defaulted on paying fees to X despite repeated requests for timely payment in accordance with the Consultancy Agreement.

A1: BEM Model Form of Agreement item 2.9 states that the consultant shall promptly notify the client in writing submitted to arbitration in accordance with clause 4.1.

Under REA Scale of Fees for payment following termination by the consulting engineer.....

Under BEM Form of Agreement item 11.6, all sums due from client 42 days..... 2% per annum interest rate.....

DON'T REPRODUCE WHOLESAL WITHOUT ANSWERING THE QUESTION DIRECTLY!!!

PART A: Common Paper 2 – PAST YEAR QUESTION



CASE EXAMPLE elaborating the DO's & DON'Ts

Q3. X decides to terminate his services while construction is still on-going.

How should X go about doing so properly and also without risking being counter-sued by Z for causing delay and losses to the project?

A2: X should claim through CIPA Act. If payment is not received, need not issue LOR.

X can also engage BEM as stakeholder for the payment issue with regards to LOR issuance.

DON'T ANSWER OUT OF CONTEXT – LOR IS NOT AN ISSUE HERE!

PART A: Common Paper 2 – PAST YEAR QUESTION

CASE EXAMPLE elaborating the DO's & DON'Ts



Q3. X decides to terminate his services while construction is still on-going.

How should X go about doing so properly and also without risking being counter-sued by Z for causing delay and losses to the project?

A3: X shall initiate adjudication proceedings under CIPAA.

X shall within 10 working days serve a written adjudication claim ... on Z.

Under clause 29(i) of CIPAA,

On the other hand, X might serve a letter to BEM to seek for their advice.....

Refer clause 3.5, X to inform LA that he is withdrawing from the project.

DON'T EXTRACT & COPY WHOLESOME WITHOUT ANSWERING THE QUESTIONS!

PART A: Common Paper 2 – PAST YEAR QUESTION

CASE EXAMPLE elaborating the **DO's** & DON'Ts



Q3. X decides to terminate his services while construction is still on-going.

How should X go about doing so properly and also without risking being counter-sued by Z for causing delay and losses to the project?

A: **DO ANSWER THE ABOVE HIGHLIGHTED ISSUES DIRECTLY**

[Common Law - Local Acts, Local Authority; Construction Contract Law and ECP Business & Management]





Q & A





THANK YOU



“Committed To Engineering Excellence”

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