

**HKIA / ARB Professional Assessment 2015**  
**Paper 1: Statutory Controls in Building Works**  
**Examiners' Report**

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## **STRUCTURE OF PAPER**

Paper 1 is an open-book examination comprising multiple-choice and essay questions.

The MC section had 40 multiple-choice questions. Each MC question carries 2 marks. The passing mark was set at 65%.

Candidates needed to answer 1 compulsory essay question and 2 out of 3 other essay questions. The compulsory question carried 30 marks and the other two questions each carried 15 marks. The passing mark was set at 50%.

Questions on all topics, as detailed in the syllabus of PA Handbook, included:

- (a) Buildings Ordinance
- (b) Submission of plans to the Building Authority
- (c) Other related Ordinances and Codes of Practice

The questions were set to test candidates' knowledge, skills and maturity to handle their day-to-day work as an Architect.

## **ASSESSMENT OBSERVATIONS**

### **FOR WHOLE PAPER**

344 candidates took Paper 1. 79 candidates (22.97%) passed.

### **FOR MULTIPLE CHOICE QUESTIONS**

117 candidates passed (34.01%); the mean is 58.0 marks out of 100, and standard deviation 12.1%, is commented on by HKEAA that "compared to PA2014, Paper 1 shows a slight drop in both mean mark and standard deviation."

### **FOR ESSAY QUESTIONS**

22 candidates passed (6.40%). Passing rates of the essay questions are as follows:

- Q1 – 13.37% (46 out of 344 candidates)
- Q2 – 6.73% (14 out of 208 candidates)
- Q3 – 18.10% (21 out of 116 candidates)
- Q4 – 23.53% (64 out of 272 candidates)

### **Question 1 (Compulsory)**

The question design to test the candidate understanding on the development intensity control under Town Plan, Buildings Ordinance and Lease Condition and how to tackle in case of variation in these three tenure. This has been repeatedly test for last few years. However, this year format have changed a little bit by providing a lay client's development schedule

where candidate have to identify what wrong with it and how to pick up differences on the development control.

In general, it is sad to note that this question has been poorly attempted and only a handful few can provide a satisfactory answer to such a simple straight forward question. The poorly attempted answer also reflected the low standard and widespread misunderstanding how the density control apply in HK and the panel have to re-consider what sort of and level of 'teaching' has to provide for the candidate in order to equip them to face with the realistic demand for local projects.

Apart, poor time management is widespread amongst candidate where almost more than one quarter of candidate fail to properly finish the answer for the question.

The following comment on each section of the question can briefly summarize the common mistakes:-

- Part (a) This is comparatively better perform part. Those candidate able to comment on the client schedule systematically on, 'uses', 'height', plot ratio control under Town Plan can score full marks.  
Sadly, it is note there still substantial number of candidate don't realize what is m.p.d. and making mistake on the permit building height. Also many candidate don't realize that only ancillary carpark can be disregarded in inclusion of the lowest 3 storeys of non-domestic use under zone R(A) of Town Plan.
- Part (b) This question divided into two sections. Comment on Lease restriction and on Building (Planning) Regulations regarding client's proposal.  
For the Lease part, most candidate realize the Lease can modify but without mention to what extent the restriction be relaxed and on what basis.  
For the Building Regulations' Section, the common misconception are:-  
Commercial carpark do not enjoy GFA exemption whether locate above or below ground.  
Town Plan P.R. control is calculate on simple summation basis rather than pro-rata like the control under Building (Planning) Regulations. Many candidate neglect that the Town Plan restricted the maximum domestic P.R. to 7.5, while the aggregate P.R. for composite building being 9.
- Part (b) Most candidate don't aware that pro-rata calculation do apply for site coverage control which is generally adopted in practice. Most candidate assume domestic and non-domestic coverage can be check independently and fail to realize both P.R. on site coverage suggest by client exceed the permissible under B(P) Reg.  
Apart, circulation core of podium garden cannot be exempted from GFA calculation.
- Part (c) Many candidate don't read or understand the question which ask for a complying scheme under current Town Plan (OZP) and Building Regulations. Most candidate proposed an office tower together with the residential block

which simply contravene OZP unless a Planning Permission has been obtained under Section 16 of T.P.O.

Apart many candidate propose a podium with P.R. 3 – which make no allowance for the set-back, exempted area, carpark entrance, E&M rooms ..... etc.

As mention in Part 'b' many candidate make wrong application in pro-rata calculation in computation of P.R. under Town Plan.

Part (d) Again many candidate don't read question carefully which is straight forward and ask for the approach for a more intensive development, to include an office tower that envisaged by client. Many of candidate misinterpreted by how to get concession and GFA exemption and fail to mention the requirement that Planning Permission as a pre-requisite for Lease modification. It is also note that quite a number of candidate get mix up the Lease modification by applying to Town Planning Board while apply Planning Permission from Lands Department.

Part (e) General well attempted part, but common misconception on Building Separation and Permeability requirement. Most of candidate stated that the maximum project façade length should be limited to 60m. Indeed, this is only one of the criteria for exemption from going for the application of Design Requirement 1 & 2 checking (i.e. separation and permeability.)

## **Question 2**

This question mainly tests candidates' understanding of the Building (Planning) Regulations and its application in building design. Part (a) of the question requires candidates to list four items from the plans provided which fail to comply with the Buildings Ordinance or its subsidiary regulations but may likely be modified/ exempted by the Building Authority. Most candidates could manage to quote one or two common modification items, which include non-provision of natural lighting and ventilation in the ground floor offices, lavatory and the typical floor bathrooms, non-provision of gas apertures in the typical floor bathrooms, and internal floor at the ground floor entrance lobby being at a level less than 150mm above the external floor.

In part (b), candidates are asked to list eight out of the many non-compliances of Buildings Ordinance or its subsidiary regulations from the plans. Common correct answers include absence of temporary refuge area within the protected exit, insufficient clear intervening space between the building and the toe of its adjacent cutting, insufficient width in the access to the refuse storage and material recovery chamber. Common misconceptions of candidates include: -

1. The width of an existing private service lane adjoining the site can be utilized to meet part of the 3m-wide service lane requirement under Building (Planning) Regulation 28;
2. Open space in the slope within the site cannot be counted as open space under Building (Planning) Regulation 25;
3. The fire rated door to a kitchen in a residential flat should have an FRR of not less than -

/60/60;

4. The second door to a protected lobby is required to have an FRR, despite that the FRR of the door facing the occupied side is not less than the FRR of the fire barriers of the storey;
5. A protected lobby is required for a water meter room opening to an exit route;
6. A water meter room cannot be located within an escape staircase enclosure;
7. A communal garden floor is necessarily a refuge floor;
8. A fireman's lift cannot share a common lift lobby and lift well with non-fireman's lifts in any case;
9. Vehicular access must be provided to a refuse storage and material recovery chamber; and
10. Design requirements of a transformer room and a switch room are controlled by the Buildings Ordinance.

Part (c) of the question asks candidates to calculate the discharge value of a pair of scissor staircases in a 20-storey non-sprinkler protected building. Common mistakes include: -

1. The discharge value is worked out by adding up the actual number of persons in all storeys of the building;
2. The discharge value of ground storey is included in the calculation; and
3. The reduction factor of 0.7 is not included in the calculation.

### **Question 3**

1. 116 candidates attempted this short question. 21 candidates attained 7.5 marks or above, representing a passing rate of 18.1%. Taking 50% of the marks allocated to each sub-question as the passing mark, the passing rate of each sub-question is:  
3(a) relevant legislations governing the subject fire safety upgrading measures – 27.6%  
3(b) authorities implementing these measures and the issues to be controlled by the authorities – 56.9%  
3(c) types of buildings or premises under the jurisdiction of these legislations – 19.0%  
3(d) how these upgrading measures are to be implemented – 6.9%
2. This sub-question is intended to test the candidates' awareness and understanding of 2 special ordinances for the purpose of upgrading the fire safety provisions of prescribed existing buildings which were Codes compliant when they were constructed and the general understanding of how these legislations are implemented.
3. General observations are highlighted below:
  - a. From the small number of candidates attempting this short question as well as the low passing rate, it may be deduced that most candidates are not aware of the subject ordinances, despite that this subject is frequently announced in local medias by the HKSAR Government as an Announcement in the Public Interests (API).
  - b. Each sub-question is inter-related. If the candidate has no knowledge of the subject and is not able to answer sub-question 3(a), though he or she may retrieve details of the answer under the current open book examination arrangement, it is difficult to get a pass in this short question.
  - c. Quite a number of incorrect answers relate to the minor works control system (MWCS). For those candidates who put forward MWCS as the answer, obviously they are

confused of the concept of statutory safety improvement to existing buildings with the concept of simplified version of statutory control applicable to existing buildings.

The setting up of the Fire Safety (Commercial Premises) Ordinance was triggered by the fatal fire on arson occurred in 1994 at the HSBC Shek Kip Mei branch resulting 12 deaths. As building professionals, candidates are advised to pay particular attention to building industry related events and social issues.

#### **Question 4**

Simple as it may appear, this question does require a reasonably good understanding of how the Buildings Ordinance and the Regulations are constructed and how the various sections relate and respond to the objectives of the Ordinance as set out at the very beginning of this legislation. And, the better the understanding the candidate has, the better he can comment on the effectiveness of the means in meeting the ends in Part (b) of the question.

A total of 272 candidates attempted this question. The passing rate (i.e. attaining 7.5 out of 15 marks) is much less than satisfactory, with only 23.5%. The percentage of those scoring 0 to 3 marks is surprisingly high, at 26.1%. From what can be inferred in the written answer scripts, candidates might have considered this question straight forward compared to the other options, and left this to the very end and found they had completely run out of time.

Those scoring below the passing mark but more than 3 are apparently those who never had the objectives of the Ordinance in mind until they encountered this question, and had only applied the Ordinance and Regulations to their work from piecemeal reading and interpretation of the various sections. The percentage of this batch is at an alarming 50%, which could mean that the majority seem to have missed the fundamentals, or worse still, if they lack interest in finding out the “whys” and “hows” while studying.

A consoling 6% of the candidates scoring 10 to 12 marks did nevertheless demonstrate how this question should be approached and the answer presented, including some original opinions of their own in Part (b).

#### **RECOMMENDATIONS TO CANDIDATES**

- (a) Attend the lecture series, seminars, conferences and workshops arranged by HKIA and other tertiary institutes or professional institutes. Be familiar with the materials and topics covered.
- (b) Get on-job experience in particular areas of interest.
- (c) If the candidates do not have on-job exposures as mentioned in (b) above, reading or discussion on what other colleagues have done would help.
- (d) Keep abreast of the times ---- through reading, and use of audio, video or internet resources.

Paper 1 Subject Panel Chair

**HKIA / ARB Professional Assessment 2015**  
**Paper 2: Building Contracts, Professional Practice, Professional Conduct,**  
**Conditions of Agreements and Scale of Charges**  
**Examiners' Report**

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## **STRUCTURE OF PAPER**

Paper 2 is an open-book examination comprising multiple-choice and essay questions.

The MC section had 80 multiple-choice questions. Each MC question carries 1 mark. The passing mark was set at 65%.

Candidates needed to answer 1 compulsory essay question for Part A Professional Practice, Code of Professional Conducts and Conditions of Agreement and 2 out of 3 essay questions for Part B Building Contract. Question for Part A carried 15 marks while questions for Part B Building Contract each carried 15 marks. The passing mark was set at 50%.

## **ASSESSMENT OBSERVATIONS**

### **FOR WHOLE PAPER**

246 candidates took Paper 2. 174 candidates (70.73%) passed and 5 candidates were disqualified due to bringing unauthorized materials to the assessment.

### **FOR MULTIPLE CHOICE QUESTIONS**

191 candidates passed (77.64%); the mean is 71.3 marks out of 100, and standard deviation 11.5%, is commented on by HKEAA that "compared to PA2014, Paper 2 shows a small rise in both mean mark and standard deviation."

### **FOR ESSAY QUESTIONS**

128 candidates passed (52.03%). Passing rates of the essay questions are as follows:

SQ Part A - Q1 – 54.07% (133 out of 246 candidates)

SQ Part B - Q2 – 49.29% (69 out of 140 candidates)

SQ Part B - Q3 – 65.47% (146 out of 223 candidates)

SQ Part B - Q4 – 57.38% (70 out of 122 candidates)

### **Part A Question 1**

Candidates' answers generally do not supplement with analytical thinking to demonstrate how to arrive the conclusion/ answer.

Candidates generally scored relatively low in this question.

#### **Question 1a**

Candidates generally are confused on how and when to apply percentage fee, lump sum fee, and time charge.

Candidates generally not very familiar with the detail works for each workstage, and the procedure on how to proceed from one stage to another.

### Question 1b

Some of the candidates confused about the use of Codes of Professional Conduct of the HKIA and ARB, and Conduct of Architectural Competitions.

Majority of candidates can understand the code of professional conduct.

### Question 1c

Majority of candidates can answer the key words for the factors contribute to the Prevention of Bribery Ordinance.

### **Part B Question 2**

1. Some answered that the BQ drawings are prepared by QS.
2. Most candidates do not have a concept of lump sum fix price contract irrespective whether BQ or Spec. and drawing arrangement is used. This lead to a lot of misinterpretations on the meaning of "the quantities in the pricing document form or do not form part of the contract".

### **Part B Question 3**

Most of the candidates are familiar with "what" but lack of an understanding on "why". On "how", some failed to give a concrete and definite assessment as an Architect and not to use wordings such as "if", "would" etc.

### **Part B Question 4**

Below are some findings and observations:

1. Out of the 122 answers, 70 candidates achieve 7.5 marks or more, representing 57%. 52 candidates achieve less than 7.5 marks.
2. Out of these 52 who failed in the answers, 36 answers (70%) were incomplete. Some candidates did not answer all sub-questions or the answers were only two or three sentences, which is considered inadequate.
3. Sub-question 4a requested the candidates to highlight the relationship and differences between AI and VO.  
Most candidates understand the basics and were able to explain.  
But there are some who got the wrong concept like AI could only be oral.
4. Sub-question 4b requested the candidate to offer practical suggestion.  
Most candidates could answer with confidence.  
But there are some who just repeating the question, flow in the standard procedures as memorized, and just could not relate to their daily practice like answering RFI, giving sketches through email or letter, etc.
5. Sub-question 4c is the core question which require the candidate to analyze the situation as given, relate to the theory and principles, and then write in a confident and polite manner to a client who is complaining.

Most candidates could not fully explore the plausible reasons and situations and just jumped to, or made up a circumstance like it is the client's late design change or it is just the contractor's responsibility.

Most candidates could not focus to answer as why the client is complaining.

Most candidates quoted that the architect is not responsible for the detailed design of the sub-consultants while some mixed up with those of the contractor in terms of duties and responsibilities.

This illustrates they have some basic understanding but not a coherent concept.

Some candidates were able to use keywords like common, best endeavor, normal practice, unexpected, unavoidable, unpredictable, careful, duty of care, diligently, unforeseen, responsibility, reasonable, etc in their argument.

Those who are not familiar with these contractual or legal keywords had difficulty in writing their argument.

6. Some of the answers, like only three sentences, are far too short to adequately address the issues.
7. Some candidates could not write in clear and simple English while there are some with very poor handwriting making it very difficult to read.

## **RECOMMENDATIONS TO CANDIDATES**

- (a) Candidates are advised to fully understand the rationale behind the contract terms for fully utilize the knowledge acquired at works as Architect in future.
- (b) Lack of relevant experience on contract / condition on engagement of the majority of candidates was noticed as from their answers.

Paper 2 Subject Panel Chair

## **STRUCTURE OF PAPER**

Paper 3 was an open-book examination comprising multiple-choice questions only. The paper consists of 60 multiple-choice questions. The passing mark is set at 65%.

This was the fourth year in which three assessments were carried out for Paper 3 in March, June and September respectively. The paper for each of the 3 assessments was set in a similar format and structure covering a variety of topics.

Questions covered various aspects of building structures, including general structural principles, different structural forms and systems, foundation systems, excavation and lateral support systems, load paths and force diagrams, practice and construction, and a case study. Diagrams were included as appropriate for better understanding of the questions.

## **ASSESSMENT OBSERVATIONS**

The passing rates for the three assessments were 63.40%, 38.61% and 60.87%, which were similar to the overall passing rates in PA2014, apart from the 2<sup>nd</sup> quarter assessment in which there was an exceptionally low passing rate.

The “mean mark” for the three assessments this year was 66.8%, 61.3% and 65.2% respectively, which is close to passing mark of 65%, with a “standard deviation” ranging from 10.75% to 12.70%. This indicates that the average candidates' performance was generally up to the required standard, except for the 2<sup>nd</sup> quarter assessment which the candidates had a slightly lower general performance and a lower passing rate. A reasonable “standard deviation” indicates that the assessment had generated a broad range of marks, and was fair, and effective in differentiating the abilities and depths of knowledge of the candidates.

It was also observed from the results that the candidates had shown weaknesses in certain areas, including the less common and less conventional structural systems (such as suspension structures, trusses, etc), and construction and practice (such as material properties, real-life application of different structural systems, etc). It was also observed that the results and general performance on the questions on the basic structural principles and concepts (such as load path, simple bending moment diagrams, etc) were also not very satisfactory.

## **RECOMMENDATIONS TO CANDIDATES**

On top of the studying the recommended reading list, the candidates are also encouraged to gain more knowledge and exposure by the following means:-

- (a) Candidates are recommended to attend the Professional Assessment Seminar / Lecture Series organized by HKIA, not only for the Professional Assessment but also to broaden their knowledge.
- (b) Candidates are encouraged to get more on-job experience, guidance from office supervisors and seniors, and learn through better communication / coordination with structural engineers at work.
- (c) Sharing of knowledge and experience with fellow colleagues and graduates is also encouraged, and should be helpful if job exposure is limited.

Paper 3 Subject Panel Chair

## **STRUCTURE OF PAPER**

Paper 4 followed the same format as used previously: an 'open-book' assessment test with 60 multiple-choice questions. Passing mark was set at 65%.

Questions were worded in clear and straightforward language and answers involving combination choices were used with discretion and restraint. Test topics were as detailed in the syllabus, viz. basic principles, sustainable design and environmental issues, HVAC, fire services, plumbing and drainage, electrical services, acoustics and miscellaneous aspects, with emphases as described below:

1. Aspects of different disciplines in building services, both fundamental and pertaining to real-life applications, that a practising architect is expected to know;
2. Issues concerning hygiene, human comfort and acoustics;
3. Matters related to sustainable design and environmental issues that have gained attention in recent years.

Candidates were also tested on knowledge spanning across the building services disciplines, energy conservation and sustainable building design. Essentially, questions were designed to test candidates' knowledge, skills and maturity in handling day-to-day situations as an architect.

As in previous years, a significant portion of the paper was based on questions asked before. The intention of reusing past questions was to encourage candidates to study those familiar topics in greater depth, so as to enrich their knowledge in the respective fields.

## **ASSESSMENT OBSERVATIONS**

This was the fourth year in which Paper 4 was offered three times, in March, June and September of the same year. 'Mean marks' were 59.6%, 55.5% and 55.9%, respectively, with corresponding 'standard deviations' at 8.78%, 9.70% and 9.23%. The passing rates of the assessment in March, June and September were 40.76%, 27.46% and 33.67% respectively. Overall performance had dropped as compared to the results in PA2014. The lecture series was organised with particular focus on environmental issues, as in previous years, and the recommended reading list was expanded to include literature on these topics.

Candidates were comparatively weak in answering questions on environmental issues, HVAC, lifts and escalators. They tended to perform better in book-based questions, such as those on theories, fundamentals and basic knowledge, which they had learned at university or through reading relevant literature, but were generally less competent in answering job-based questions, such as relating to architectural practice and real-life applications.

## **ADVICE TO CANDIDATES**

Broadening of exposure is the key to success. In addition to following relevant literatures and the recommended reading list, candidates would be well advised to enhance their knowledge by:

- (a) Attending the 'Paper 4' lecture series and related seminars, conferences and workshops organised by the HKIA, other tertiary institutions and professional bodies;
- (b) Getting on-the-job experience, having closer coordination with building services and environmental consultants;
- (c) Keeping abreast of the times and getting hands-on experience in OTTV, IAQ, BEAM Plus or other environmental assessment systems;
- (d) If on-the-job exposure is not available, as mentioned in (b) and (c) above, reading of documentation on work done by other members of the project team; and
- (e) Taking the initiative to go through specifications, material and equipment submissions, shop drawings, method statements, etc., even though they may be technically within the scope of work of the building services engineer.

Paper 4 Subject Panel Chair

## **STRUCTURE OF PAPER**

Paper 5 was an open-book examination comprising multiple-choice questions only. The paper consists of 60 multiple choice questions. The passing mark is set as 65%. The questions are set at a very similar format and variety in each examination. This is the fourth year that the paper was set for three assessments in March, June and September.

The contents of the paper include the different trades of construction regarding materials and technology, actual practices including working procedures and detailing as well as law related construction questions such as the Building Ordinance and Regulations, PNAP, Codes of Practices, etc. Questions with diagrams were set so that more than one question can be asked out of it. Generally, the questions are quite straight forward and all based on Hong Kong local practices and experience. A major proportion are new questions set this year.

## **ASSESSMENT OBSERVATIONS**

The respectively passing rates for the three assessments are: 33.77%, 55.97% and 61.29%. The passing rates had been consistent with paper 3 but had dropped compared to the results in PA2014. Though new questions have been added to the papers, yet the standard of questions were consistent with the immediate three years.

## **OUTLOOK FOR COMING YEAR 2016**

Despite the increase in the passing rates, the panel will still maintain its standard of setting questions and insist on preparing new questions for the year 2016. However, more focus is given to the lectures for explaining clearly the scope of examination.

## **RECOMMENDATIONS TO CANDIDATES**

1. Study the materials and technology in terms of the various building trades.
2. Look at building control on construction and updates with the PNAP.
3. Study detail construction drawings of various components at the candidates' office or through local references.
4. Learn the procedure of construction for various trades.
5. Read about the specification of materials.
6. Attend all lectures given by the panel.

Paper 5 Subject Panel Chair

## **1. THE QUESTION**

The test case is a rehabilitation facility in a triangular site composing of 2 land platforms with 3m level difference. There is a bus stop on the road to the south of the site.

The task to is produce a preliminary master layout plan of the rehabilitation facility composing of 3-4 rehabilitation dormitory blocks (total 12,500m<sup>2</sup>), 1 staff quarter block (4,500m<sup>2</sup>), and a clinic cum multi-purpose hall block 3,000m<sup>2</sup>) with a 25m long outdoor swimming pool. A prototype of rehabilitation dormitory and another of staff quarter are given for the candidates to develop the site layout.

There is a height restriction of 40m above the lower platform of the site. There are a number of special design feature requirements, which include the provision of a 3m-wide jogging trail of minimum 350m long that shall form a loop and not be crossed by vehicular traffic, an artificial lake of minimum 500m<sup>2</sup> that shall be harmoniously integrated with the jogging trail, a minimum 500m<sup>2</sup> open space with good relation with the jogging trail, and a pedestrian entrance and a path leading from the bus stop to the clinic cum multi-purpose hall block.

It is specified that the design shall comply with the building separation, street setbacks and green coverage requirements in accordance with the Sustainable Building Design (SBD) Guidelines (PNAP APP-152).

The candidates are expected to demonstrate their competence in coming up with a sensible site arrangement that generally meets the statutory requirements and the design brief.

## **2. ANSWER SCRIPTS**

### **2.1 General**

Given the ample site area, a considerable number of layout variations are possible. The panel appreciates a wide range of design approach in response to the design brief and the site.

The panel is generally satisfied with the performance standard this year. The majority of the candidates managed to satisfy the relevant statutory requirements and the brief requirements. Most candidates were able to demonstrate a fair understanding of the SBD requirements.

### **2.2 Fundamental Non-compliances**

Despite the reminders in the lectures in previous years, there were still a few cases of grossly under-development and exceeding the height limit, which were unacceptable.

### **3. KEY INDICATORS**

The preliminary master layout plan of each answer script was carefully scrutinised by the assessment panel, which did not look for perfect design solutions and absolute compliance with the regulations, but a sensible approach and reasonable execution of site planning with a general understanding of the statutory requirements.

The following key indicators are specific to the Paper this year, revealing the competence of the candidates in their sensibility, level of technical knowledge, understanding of statutory control, and skill of implementation:

- (a) General compliance with development parameters – maximising development potential, compliance with building height limit and SBD requirements.
- (b) General compliance with the special design feature requirements – provision of jogging trail, artificial lake, open space, and pedestrian access to the clinic cum multi-purpose hall.
- (c) General compliance with major statutory requirements – prescribed windows, EVA, ingress / egress points, etc.
- (d) General compliance with traffic and circulation requirements, including the provision of car parking spaces and loading / unloading bays as required.
- (e) Sensibility in disposition of blocking to exploit views to the artificial lake and open space, and to avoid major overlooking.
- (f) Sensibility in the arranging vehicular and pedestrian circulation, demonstrated by the arrangement of internal roads and pedestrian paths, jogging trail, car park, drop off, and loading / unloading provisions, and access to each block.
- (g) Sensibility in the provision of open space, which could be conveniently enjoyed by the residents, harmoniously integrated with the artificial lake and jogging trail, but appropriately segregated from the internal roads and car park.
- (h) Sensibility in functional relationship among different components in the brief, e.g. grouping of the rehabilitation dormitory blocks, and proximity of the clinic cum multi-purpose hall block from the bus stop.

### **4. WEAKNESSES**

In addition to the fundamental non-compliance described in paragraph 2.2, the following major weaknesses are observed:

#### **4.1 Non-compliance with SBD requirements**

- (a) Linking individual blocks together or separating individual buildings by less than 15m so that the Projected Façade Length (LP) exceeds 60m.
- (b) Ignoring the low-rise clinic cum multi-purpose hall block when considering the LP.
- (c) Provision of above ground carpark building.

#### **4.2 Non-compliance with prescribed window requirements**

- (a) Failure in fulfilling the prescribed window requirements for the rehabilitation dormitory and staff quarter blocks, particularly in cases of overlooking blocks.
- (b) Blocks abutting right on the common boundary on the west and northwest of the site.

### **4.3 Insensible disposition**

- (a) Rehabilitation dormitory and staff quarter blocks seriously overlooking each other.
- (b) Non-user-friendly / unusable / non-accessible leftover space between blocks.
- (c) Low-rise clinic cum multi-purpose hall block seriously blocking the view of the low storeys of the rehabilitation dormitory and staff quarter blocks.
- (d) Insensible site utilisation (e.g. squeezing all blocks and other elements required in the brief in only half of the site, but totally ignoring the other half).
- (e) Poor relationship between the rehabilitation dormitory and staff quarter blocks and the landscape (e.g. blocks facing away from the artificial lake and open space).
- (f) Clinic cum multi-purpose hall block being too remote from the pedestrian entrance near the bus stop.

### **4.4 Non-compliance with special design feature requirements**

- (a) Substandard provision of jogging trail, artificial lake, and open space.
- (b) Poor integration among the jogging trail, artificial lake, and open space.
- (c) Jogging trail crossed by internal roads, or with deadends.
- (d) Missing or grossly insufficient car parking spaces.

### **4.5 Insensible internal road planning**

- (a) Grossly over-provided internal roads leading to fragmented open space, excessive pedestrian crossings, and separation of the rehabilitation dormitory and staff quarter blocks from the open space.
- (b) Under-provision of internal roads leading to inadequate drop off and loading / unloading provisions for each block.
- (c) Car parking spaces and loading / unloading bays directly accessible from roundabouts, or even external roads.
- (d) Vehicular access not complying with XYZ points (e.g. provision of additional ingress/egress points beyond the permitted location).

### **4.6 Non-compliance with EVA requirements**

- (a) Substandard gradient of EVA linking the two platforms.
- (b) Substandard hammerheads and turning circles for fire fighting vehicles.
- (c) Inadequate coverage of building facades.
- (d) Substandard EVA width.
- (e) Excessive internal roads as EVA at the expense of open space where the buildings can be easily reached from the public roads.

## **The Paper**

This year's Paper aims to examine the candidates' competence in the design of a Sports Healthcare and Rehabilitation Centre. Apart from the ability to integrate different functional requirements in a building, the question also aims to test our candidates' sensitivity to provide a reasonable solution to segregate private and public functions in a building complex.

The design brief calls for a schematic design for a **Sports Healthcare and Rehabilitation Centre**, which comprises the following principal elements:-

1. Sports Healthcare Centre providing consultation, clinical facilities and daytime physiotherapy treatment services; and
2. Rehabilitation Centre providing short term in-patient wards and physiotherapy treatment services including a rehabilitation pool.

Vehicular drop-off and carparking spaces within the site are required.

Submission requirements are limited to layout plans and sections. 3-dimensional illustrations and calculations are not required.

## **The Answer Scripts**

The Subject Panel agreed that the design brief involved a variety of accommodation and therefore posed great challenge to the candidates in integrating different functional requirements in a building. As a result it was hard to find an answer script that could be considered free from major flaws.

## **Key Indicators**

The detailed layout of each paper was scrutinized carefully jointly by the assessment panel. The Panel was not looking for brilliant architectural design, but a sensible design solution that could meet the design brief, and in general compliance with the building regulations.

The Panel made the assessment based on the following key indicators that can reveal the competence of the candidates in their design sensibility, level of technical knowledge and skill of implementation:

- a) General compliance with development parameters – mainly building height and site coverage requirements;
- b) General compliance with major statutory requirements – including prescribed windows, fire escape and EVA;

- c) General compliance with specific site constraints – including provision of separate pedestrian entrances, and reasonably segregated vehicular and pedestrian accesses;
- d) Sensibility in arrangement for wards (habitation), consultation (workplace) and disposition of health facilities;
- e) Integration of a long-span structure – swimming pool and its facilities;
- f) Sensibility in arrangement of reasonably segregated vertical circulation to the two centres;
- g) Sensibility in the design of floor-to-floor height, structural system and disposition of building services spaces.

## **ASSESSMENT OBSERVATIONS**

### **The Weaknesses**

The major weaknesses observed this year include:-

- a) Design and planning
  - Unsatisfactory disposition of the required accommodation to provide a sensible integration of facilities.
  - Poor consideration of ground floor entrances.
  - Poor treatment of segregated entrances and vertical circulation for Sports Healthcare Centre and Rehabilitation Centre.
  - Inappropriate circulation and communal spaces arrangement.
  - Poor integration and accessibility between the facilities for the two Centres.
  - Inappropriate planning of the swimming pool and its related facilities
- b) Building structure
  - Poor consideration of structural implications of the swimming pool in relation to the building.
  - Poor integration of structural provisions for those repetitive modules. e.g. consultation rooms and in-patient wards.
- c) Scale and proportion
  - Inappropriate scale – lifts, stairs, corridors were sometimes grossly oversized or undersized.
- d) Statutory compliance
  - Prescribed window requirements of consultation rooms (office spaces) were sometimes ignored.
  - Excessive means of escape.
- e) Vehicular access
  - Inappropriate sizing of parking spaces.
  - Poor vehicular maneuvering paths / drop-off and integration with pedestrian entrances.

f) Others

- Poor documentation.
- Poor clarity and cleanliness of drawings.

Paper 7 Subject Panel Chair

## **STRUCTURE OF PAPER**

Candidate has to provide a one-page synopsis and go on to complete a 20+20-page report. The Professional Assessment Handbook details the topics requirement and report format. The passing mark is set at 50%.

## **ASSESSMENT OBSERVATIONS**

156 out of 196 candidates passed the Paper this year. The passing rate is 80%. Two candidates received zero mark due to plagiarism and will not be allowed to take PA2016 – Paper 8.

This is the second year that the same project may be studied without lapse, however, the special topic has to be different from the one used in previous assessments.

It is generally agreed that the case study remains a useful tool through which candidates can learn about the essential elements of project administration, even though the projects they are handling in the office may not give them sufficient exposure to the entire range of practical issues. Passing rates are usually high and it is not seen as a major source of anxiety for candidates.

## **RECOMMENDATIONS TO CANDIDATES**

Carefully study and analyze available information on the project and talk to the project team for a thorough understanding, then write the report in your own words to cover what has been learned. High emphasis is put on candidate's own appraisal of the various issues and problems relating to the project. Special topic study gives candidates opportunity to research in depth a topic of interest. Candidate may continue to use previous reports as format and contents template but have to refrain from copying multiple sentences and paragraphs, which will be readily detected by the plagiarism software.

Paper 8 Subject Panel Chair

## **STRUCTURE OF PAPER**

This paper is a 30-minute interview conducted primarily in English and each candidate is interviewed by a panel consists of three interviewers. This is the fourth year that the new policy on using Cantonese for technical terms and for supplementary purpose with the permission of the Chairperson of the Panel of Interviewers is implemented.

This is also the fourth year to test candidates on their Case Study reports in the Professional Interview. Interviewers reminded the candidates that their case study report is also used as a referencing material in the interview. Candidates may choose projects not handled by themselves and Interviewers are reminded to cross reference with the candidates' logbooks.

Interviewers are advised to make sure the candidates have digested the followings in doing their Case Study reports:

- a) Statutory Control
- b) Cost Control
- c) Time Control
- d) Safety
- e) Quality Control
- f) Design Quality Control
- a) Building Contracts

Candidates' professional maturity and adequacy of the practical experience as recorded in the Logbook are assessed by the interviewers. Questions may cover topics related to Buildings Ordinance, Building Regulations, other related ordinances and Codes of Practice, construction knowledge, Building Contract and Contract Administration and Professional Ethics. Candidates' confidence in answering questions is also looked for by interviewers.

## **ASSESSMENT OBSERVATIONS**

81 out of a total of 124 candidates (65.32%) passed the paper in the April 2016 attempt (for PA2015), which is significantly lower than the attempt in March 2015 (72.35%).

From the report of Interviewers on failed candidates, most candidates were lack in knowledge on Building Contract and Building Ordinance and failed to demonstrate to the interviewers their competency to work as an Architect. The candidates were also lack of confidence and general knowledge; and were not well prepared for the Interview. The weaknesses may be attributed to their lack of practical experience on local projects.

## **RECOMMENDATIONS TO CANDIDATES**

1. To reinforce his/her understanding of a project selected for case study, a candidate is recommended to instead of just reporting to his/her advisor what have been done during the period of review, discuss regularly with the advisor of what he/she has

observed in the case study and to consult the advisor the rationale behind certain solutions to various problems.

2. As reflected in the summary, main reasons of failure of some candidates in the examination attribute to the lack of practical construction and contract administration experience, which may be a result of the reducing number of local projects. Candidates are advised to look at their job exposure in particular the chance of getting in touch of local projects before they commit or engage to the practice during their internship period.

Paper 9 Subject Panel Chair