

# APEAS<sub>LTD</sub>

**ARCHITECTS' PROFESSIONAL EXAMINATION AUTHORITY IN  
SCOTLAND Ltd.**

**THE EXAMINATION IN PROFESSIONAL PRACTICE &  
MANAGEMENT: PART 3, 2010/11**

## **QUESTIONS for CANDIDATES**

**All questions should be attempted**

**All the characters, locations and incidents contained in this Paper are fictitious**

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**PLEASE NOTE:** Candidate documentary submissions must be with APEAS by **12.00 noon on Friday, 3<sup>rd</sup> December 2010**. This deadline for submission is mandatory. Documents should be sent to:  
**Dr. P.A. Kahan, CEO, APEAS Ltd, Grangemouth Enterprise Centre, Falkirk Road, Grangemouth, FK3 8XS (Tel. No. 01324 484652)**

## QUESTION 1

Write **about 50 words** on the following:

- 1.1 Outline the respective functions and duties of the following:
  - (a) Planning Officers;
  - (b) Planning Committee.
- 1.2 What should an architect expect from a good CDM Co-ordinator?
- 1.3 What is the function of the Certificate of Non-Completion?
- 1.4 Why is cash flow important for an architectural practice?

End of Question 1

## QUESTION 2

Dear Candidate

A partner has left me a prequal to fill in (see attached memo below). Right now I don't have time but I'll get to it next week. However, there are a few things about our approach that I am not sure about in ethical terms. It seems to me that the partner has prepared the note in a bit of a rush.

There is also a bit at the end of the prequal which says:

*The Board's decision on shortlisting is final. No discussion regarding this will be entered into and scores/reasons for shortlisting or otherwise will not be divulged.*

I need to know where we stand before I spend time filling in the pqq. I **don't** need you to actually fill in any of the form. Please can you write a brief report that identifies your concerns and actions that you think are appropriate.

Thanks

Jill,  
Associate

Dear Jill,

Having answered an OJEU advert we now have received the prequalification questionnaire for the job to design a new community hospital for Cityburgh South. This is really exciting. I am particularly keen as I know from the chairman (who is a cousin of mine) that the Board is keen for a local architect to do the work. Also I happened to bump into John from KCM Architects at lunchtime and he indicated that, although they have been prompted to submit, they do not really have the resources to do this at present. He therefore intends to make a high bid. As they are our main local opponents this greatly improves our chances.

In the pre-qualification questionnaire (pqq) there is a bit about needing a Healthcare Planner. I think we should say that we have this in-house. If we win the job, which we are more likely to do if we are proposing an in- house team, we can easily engage one.

Thank you

John

End of Question 2

### QUESTION 3

#### Memo

**From:** Miriam

**To:** Candidate

Unfortunately we seem to have another problem to attend to on this job.

I'm sure that you are aware that the project has not gone smoothly. The client feels largely let down by GFY following Alex Smith's departure - we really did not handle this particularly well. This is on top of the issue on the lowest tender figure exceeding our original estimate for the works.

Please find attached a letter received from the client this morning. It seems that my fee note to cover the first site instalment and realign our fee to the accepted tender figure has triggered this.

I have managed to look out the correspondence on our appointment and found this letter prepared by Alex Smith dated 1<sup>st</sup> December 2009.

I want to be in a position to respond to the client as soon as possible. To enable me to do this can you review the situation and come back to me on the following:

Can we rely on Alex's letter being a compliant appointment letter? I note that the client wants to contact the RIAS, are we at risk?

Do we have sufficient grounds to charge a percentage fee against the accepted contract figure?

On the basis of your assessment can you set out for me your suggested course of action and draft me a letter of reply to the client.

Thanks

Miriam

### QUESTION 3 (continued)

Ref. AS / 09025  
1<sup>st</sup> December 2009

Mrs Linda Park,  
17 City Terrace,  
Cityburgh,  
CB1 6RW

#### **Extension to 17 City Terrace. Cityburgh**

Dear Linda,

Following on from our meeting last Monday we need to agree the terms of our appointment, essentially the fee to GFY and our scope of works. Once we have done this, and you are happy for us to proceed, we can then get started.

I have set out below a summary of our fee proposal. Of course, this is for your consideration.

As discussed our fee for this type of work would normally be 10% of the total construction budget.

In terms of budget, based on your brief and our initial sketch proposals I would estimate that a construction figure of around £120,000 should be anticipated. This is a guide at this stage, a lot will depend on the final design and detailed specification, and to confirm, we would not expect to charge a fee against high specification / luxury items. e.g., if you decide to specify a high end kitchen we would not charge a full percentage fee, rather agree a figure that is fair and reasonable.

Remember this is a figure for the construction work only, on top of this would be professional fees and VAT, so your final project costs will be significantly more. It may be that on further consideration you might have more of a view on your available finances, accordingly if there is a figure you are comfortable with please let me know.

So, taking £120,000 as a construction figure, our fee would be a lump sum of £12,000 split into the following stages.

### QUESTION 3 (continued)

Stage 1	Survey, preparation of existing drawings and sketch scheme	£1,500
Stage 2	Submission of Planning Permission documentation	£3,000
Stage 3	Submission of Building Warrant	£3,000
Stage 4	Preparation of construction drawings and tender operations/ appointment of contractor	£2,500
Stage 5	Progressing the build to completion	£2,000
	<b>Total</b>	<b>£12,000</b>

The above figures are exclusive of Value Added Tax but inclusive of expenses.

If you are happy for GFY to proceed, I can then give you some detail in terms of anticipated programme, and more information on the key stages identified above.

I would propose to finalise our appointment using the Scottish Conditions of Appointment of an Architect [Small Project Version] published by the Royal Incorporation of Architects in Scotland.

Finally, Linda, if you have any questions / concerns at this stage please let me know.

Yours sincerely,

Alex Smith,  
Architect,  
GFY Architects

### QUESTION 3 (continued)

Mrs Linda Park,  
17 City Terrace,  
Cityburgh,  
CB1 6RW

10<sup>th</sup> November 2010

GFY Architects,  
Geddes House,  
1 Union Street,  
Cityburgh,  
CB1 9RW

#### **Extension to No 17 City Terrace.**

Dear Sirs,

I refer to you fee note No 2709 dated 08<sup>th</sup> November 2010 listed as site instalment No 1.

You will be well aware that this project has not gone well, and having thought that matters can get no worse, you can imagine my utter disbelief when I opened your letter and noted that you have completely revised the agreed fee structure. You have now changed to a percentage fee of the tender figure submitted by the contractor. I immediately looked out from my files Alex Smith's letter dated 01<sup>st</sup> December 2009 and as I thought our agreement was based on a fee of £12,000.

As you know I have had to re-negotiate my finance arrangements with the bank at considerable cost and personal risk to cover the increased construction costs. My original facility covered a sum of £158,000 which I thought was more than enough, allowing for VAT, to cover the job based on your advice that the construction figure would be £120,000. Included within the finance arrangement is the £12K to cover your fees.

To now be faced with an increased figure to cover an additional £4,000 in fees is now completely beyond my means.

I consider this to be yet another occasion where I have been badly let down by GFY and I now wish to record my complete dissatisfaction with you practice.

I have been on to the RIAS web site and I fully intend to register my complaint with them in the strongest possible terms.

### **QUESTION 3 (continued)**

As a matter of urgency can you respond to the above. I am extremely concerned in view that construction has only just commenced and I have the prospect of another 3 months to go before the extension will be completed.

Yours faithfully,

Linda Park

End of Question 3



## QUESTION 4

Dear Candidate,

We have just been asked by our Client; John Green of Eco Properties, to design a speculative office building in the suburbs of Cityburgh. This is to be a new build project built in the garden of one the large estate properties they own. It will be approximately 3600sqm and will house approximately 350 staff. The construction budget for the project is £5m and will be procured using a single stage design and build contract.

This is an excellent opportunity for the practice. However Green Properties have introduced an unusual and interesting proposal within their proposed appointment. They expect the building to achieve at a minimum an 'excellent' rating. However, if we manage to get an outstanding rating without increasing the construction costs by more than 5%, they will improve our fee by 10%. They believe that an outstanding rating will give the building an excellent marketing advantage and will allow them to charge higher rents. On the downside if we only achieve a very good rating they will reduce our fee by 15%. The base fee is already low at 3.6% so if we lose 15% it could reduce to 3.06% and at this level we will definitely make a loss. The other consultants have been asked to accept the same conditions.

I already have a good knowledge of what credits are necessary to obtain both either an 'excellent' or 'outstanding' BREEAM rating but there are clearly other issues about the fee structure and appointment that are of concern. I would value your opinion on these issues. Please put these down on paper along with a draft letter to John Green.

Yours

Duncan Flynn

End of Question 4

## QUESTION 5

### Memo

**From:** Miriam

**To:** Candidate

I have arranged a briefing meeting for next week with Dr and Mrs Rich about their project. We have just won the invited fee bid to design their dream 700 sq m home on a 2700 sq m, gently sloping plot in Cityburb. It is a replacement dwelling and we will be demolishing an ugly flat roofed property, built in the 70's, of little architectural merit. It is not listed or in a conservation area and is about a third of the size of the proposed house. The proposed house will nestle into this leafy setting and take advantage of spectacular views, it will be a bespoke house and the indications are that the client is interested in a modern design. I am very excited about the project, I will be able to see it from my golf course, so it needs to be a good advert for the practice.

We are lead consultants for the project so it is important that the first client meeting sets out a sound basis for the management and delivery of the project. Give me a list of **bullet points/ brief notes** on the following;

- Which consultants should we advise that the client appoint to make up the design team? Mark down the consultants you consider to be essential on the project and those you consider to be discretionary.
- If I am asked about the project build costs what do you think would be a reasonable cost per square metre to set as a budget target?
- What would be a reasonable timescale for the pre-contract works from now to site start assuming the client wishes to apply for the building warrant after receipt of planning permission and the project is tendered traditionally. Remember the client is under financial pressure to realise the project as quickly as possible.
- What information other than the architectural design may be required to supplement the application for Full Planning Permission?
- What information other than the architectural design may be required to supplement the application for Building Warrant? Do you think we should consider either a Demolition Warrant or a Staged Warrant?
- On the house design itself what should I be asking/doing to ensure that we and the client have a shared understanding of good design?
- What advice should I give on the management of the design process?

End of Question 5

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## QUESTION 6

### Outline

Project; Health Club / Leisure fit-out project. Part of a multi-occupancy development project, that includes facade retention, in Cityburgh. Other occupiers include a hotel, bars, restaurants, nightclub and spectacular penthouse flats in the top two storeys which are new build and are set back and raised over the stone parapet of the existing facade. All these other occupiers have their own contractors working simultaneously on site. The landlord's contractor is responsible for the shell works and the residential aspect of the development; they have overall control of the site.

The site comprises an area of 100 sq m on the ground floor which was to form a reception area linked by private lifts to levels 7 and 8 each 1500m<sup>2</sup> which were to house spa facilities, swimming pool, gymnasium, dance/aerobic studios, changing facilities, offices and staff facilities.

The ground floor was accessed independently from the ground level at the front entrance; the upper levels were accessed by the Landlord Contractor's hoists or cranes and were shared by the fit-out contractors.

Practical Completion (PC) was achieved 4 Months (16 weeks) late on a 9 month (36 week) contract, an Extension Of Time (EOT) award was made for 4 weeks based on additionally instructed work and 10 weeks of damages have so far been applied by the client at a rate stated in the contract of £7,500 per week.

## QUESTION 6 (continued)

Dear Candidate,

WP Shop Fitting has come back to us now, after Practical Completion (PC) was achieved. There is still snagging going on and he has requested an extension of time (EOT) to take them up to completion. I have some sympathy for them, the landlord's contractor was a constant source of aggravation and the client was uncompromising in levying damages at the earliest opportunity when there were ongoing issues.

### Access to Levels

Access to Level 1 was delayed. Initially WP Shop Fitting took possession of the whole of our site, without the ability to access level 1. This was due to the facade props that blocked the front entry to the unit, and this was the only access to this part of the site. WP Shop Fitting agreed to take possession of the site as we were under pressure from the client to get on site. We had already rejected the shell as incomplete a month before. Other fit-out contractors had already taken possession of their units and the landlord's contractor indicated that the props would be removed in four weeks time at the end of month 1. WP Shop Fitting agreed that this would have no effect on their programme as they planned to work sequentially from the top down moving trades as they finished each floor. They were not programmed to start works on level 1 until month 3. Access was not made available until the start of month 6.

The contractor takes the position that this is clearly a default of the employer to provide full access to the site and as such they are entitled to an EOT award to PC.

The contractor was still working on this area right up to PC and although it was a small area it was complicated and had a number of high value bespoke finishes.

The contractor states that the effect of the delay involved them in out of sequence working and they are not under any obligation to complete the works faster than their programme shows. Indeed they state we are not allowed to adjust the programme timescales.

I'm not sure enough resources went into the area to complete it on time and it may have hidden deficiencies elsewhere. It only accounted for about a tenth of the project value and if tendered on its own would not have taken 8 months to complete. In my opinion 4 months would have been sufficient to complete the works. However, I did not decide on this at the previous award as I stated that I wanted to assess the effect of the delayed access on the project.

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## **QUESTION 6 (continued)**

### **Carpet Specification**

The carpets for all the circulation areas were delivered late and rejected at the beginning of month 12 due to a recurring fault in the pattern. The contractor had advised us not to specify the product as their sub-contractor had experienced delivery and quality issues in the past. We ignored this advice and the client was fully aware of the decision as we advised that we had spoken to the supplier and that there would be no issues. As replacement carpets were on a 12 week delivery it was decided to instruct a stock carpet material that was available within 2 weeks. The carpet works were completed 1 week prior to PC and the contractor has requested a full award. The carpet specification was instructed using a Prime Cost Sum in the Bill of Quantities. The client is very unhappy with us and blames us for this issue. He does not like the compromise carpet, which he felt forced to accept and is holding back fees because of it.

### **Shower Alterations**

The client decided at the start of month 12 to change the entire wall mounted showers to ceiling mounted fixed head showers. The contractor got on with this work, pulling down ceilings, finishes and re-piping the plumbing and had the work complete 4 weeks later. The contractor has requested an extension to month 13 for this.

### **Conclusions**

Based on this background information on the contractor's extension of time claim, decide on an award and explain your reasoning on each of the following topics:

- Access to Level 1
- Carpets
- Alterations to showers

If we do award a further extension of time what should we do in relation to the damages that have already been levied?

Based on your decisions above what, if any, is the resultant value of damages that the client would be entitled to in your opinion?

End of Question 6

## QUESTION 7

### Outline:

This secondary school project has gone very well so far with great enthusiasm from the client. Everyone has got on well and the design has developed smoothly. The Quantity Surveyor has consistently reported that the cost is on budget, including in the Stage D Cost Plan.

A major design decision was the choice of brick, a hand made brick of unusual dimensions, which is very expensive to buy compared to a normal housebrick. The Quantity Surveyor was informed of the specification during Scheme Design.

The lighting specification issued by the M&E engineers just prior to the Stage D Report having to be completed contained some fittings which were not as expected from previous discussions. It appeared to be a re-hash of one from a previous project. However, this was not picked up until after the report was approved. GFY returned a marked up copy of the lighting schedule pointing out the errors to the M&E Consultant who altered his drawings accordingly.

Towards the end of the Production Information process there was a presentation of internal finishes to the client and project manager. At this presentation the architect showed several alternatives for some finishes, and the floor finish proposals were altered, with a more expensive carpet than specified being selected, and the linoleum changed for resin flooring.

There is a strict Change Control system on the project, administered by the project manager. This involves the originator of any change being required to complete a form describing the change and the reasons for it. Input is then requested from other team members to clarify the effects of the change on others' work, programme and cost. The process is time consuming and there have been issues with the architect being forced to complete forms for changes initiated by the client.

The project was taken to the end of Production Information prior to tender documents being issued. Design and Build was therefore used as a risk transfer mechanism rather than as a way of the contractor carrying out design.

## QUESTION 7 (continued)

### Letter from Project Manager to Architect

Dear Sirs,

#### St Ronan's School

We write with concern regarding the level of tender returns on this project. There is a significant cost overrun which seems to be attributable to unauthorised changes in the specification of the building. Examples are:

- 1 Brick. The brick is 20% more expensive than the cost plan allowance. Even a cursory check on the industry reveals that it is one of the most expensive bricks on the market. This is clearly not appropriate for a secondary school.
- 2 Lighting. The lighting is also well over budget. This apparently is due to changes to the M&E engineers approved specification instructed by you for purely aesthetic reasons.
- 3 Flooring. The flooring now specified is, again, some 20% more expensive than in the cost plan. This has clearly changed at a late stage and is now, together with these other matters, placing the project in jeopardy.

As you know, the application to the Funding Council was meant to be submitted this week and is all prepared, with just the tender figures to be inserted. It is now unlikely that the submission can be made in time and, due to the worsening position of public finances there is a real possibility that the project will be stopped.

Should the project be cancelled as a result of these matters, it is my duty to inform you that the client reserves the right to reclaim the resulting cost (which will be very considerable) from you.

Yours faithfully

WE Cope Project Management

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## QUESTION 7 (continued)

### Memo

**From:** Miriam

**To:** Candidate

What on earth is going on? I thought this job was going beautifully!

This is clearly a serious situation. As I am out until tomorrow afternoon, could you have a good think and draft out a report on the matter, together with a response to the Project Manager?

Thanks

Miriam

End of Question 7



## QUESTION 8

### Memo

**From:** John Young

**To:** Candidate

As you know, we are at last about to see some progress on the restoration of the long-redundant Parkgrove building on which we have been involved since feasibility study stage. The owner and the potential end user have agreed a strategy for funding the restoration work, which they concede – given the recent listed status of the building – will be of a more specialist nature than either are used to. The owner is by his own admission more comfortable erecting large, swiftly-built warehouses and storage units, and the end user, despite an impressive record in refurbishment some years ago, now almost exclusively procures contracts using the Design and Build route.

With a view to establishing a realistic programme for this project, we have been asked to produce a paper outlining in bullet point format the differences between the Design and Build method of procurement and a Traditional contract. This paper will be presented to the end user's Management Committee (all of whom are lay people), but will also be available to the building owner, who is interested by the differences in the construction process, but who frequently reminds us all that it is his own money that is part-funding the project.

Perhaps we should start by setting out the differences in the architect's role under both types of contract – you could break this down into pre and post-contract stages – and set out the differences in the architect/client relationship under the two types of contract. What are the main differences for the client? Are there other inherent differences in the two procurement routes that you feel should be drawn to the clients' attention?

You should conclude by outlining our reasons for recommending a traditional procurement route in this instance in preference to Design and Build. Are there any options within the traditional route which might be helpful?

End of Question 8

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## QUESTION 9

### Memo

**From:** John Young

**To:** Candidate

Due to the reduction in our workload in both the commercial and residential sectors as a result of this prolonged recession we have been looking at ways of obtaining more public sector work – particularly in the education sector. One of the ways of doing this is to form some form of alliance with another firm of architects and piggy-backing on their experience while helping them to deliver an educational project. We have made a number of discreet enquiries and coincidentally an OJEU for a new £60m secondary school has just been issued. We have been approached by Teacher and Lerner Architects to see if we could join forces with them in pitching for this project. They have delivered a number of schools in the past but have had to reduce in size because of the recession and do not feel that they could resource the project on their own. I went to college with Jim Teacher and Abel Lerner, their senior partners, and we all feel that we could make some form of alliance work.

I would appreciate your help, in the form of a memo, considering our next steps. What would we need to do before agreeing to this alliance? I understand that there are things like Joint Ventures but please describe all of our options for the form of this alliance, including the pros and cons of each option?

Yours

John Young

End of Question 9

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## QUESTION 10

### Memo

**From:** John Young  
**To:** Candidate  
**Date:** 30 November 2010  
**Subject:** CIS HQ Building.

I have been looking at the office costs for this project and it appears that we have already used up the job fee on staff time and overheads, with the project only just started on site. You will recall that we based our fee on the work envisaged in the Project Manager's original project programme\* (copy attached, actual progress over marked in red).

We have had to devote far more staff time than predicted, due to our Client requiring fundamental design changes and also to modifications of the proposals required by the Planners.

Please can you:

1. Provide a report on what has gone wrong with the programming and running of this job.
2. Recommend how we proceed from here, in terms of ongoing activity.
3. Suggest ways in which we might minimise our losses.
4. Suggest how we might avoid this situation in future.

I will need your report by Friday, for discussion with Miriam.

John Y.

***\* project programme is included as a separate document***

End of Question 10  
**END OF PAPER**

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