

# **ICE Law and Contract Management Examinations**

## **Examiners' Report 2014**

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## **Moderators' Report**

The results this year were slightly below the recent averages achieved, but the success percentage increase for Module 2 was encouraging as was the approximate 50% increase in the number of candidates sitting Modules 1 & 2. However, disappointingly again this year Module 3 attracted only four candidates all of whom unfortunately failed to achieve the required pass mark. This exam requires candidates to have considerable professional experience and a good knowledge of two forms of contract some of which necessarily cannot be gained by study alone. It is also recognised that since the ICE ceased to promote the ICC Form of Contract, hands-on experience of this Form is increasingly more difficult to attain but all the same, the decision-making role of the Engineer is considered a valuable source for obtaining sound contract management skills.

The examiners make useful comments in their reports much of which merits repetition.

For the Module 1 Paper generally, candidates lost marks because they had not read the question properly and had therefore failed to answer the question that was asked. For example, simple marks were lost by not setting out all the express terms of a contract after successfully analysing the more difficult issues surrounding the formation of the contract.

For the Module 2 Paper it was encouraging to note that candidates were in the main adopting NEC language and terminology. For short answers reliant on a particular clause, if two marks are on offer, then it is worth citing the clause number and briefly explaining its relevance. On occasions, the clause number was cited but the candidate failed to explain their conclusion. Candidates lost marks where parts of the same answer were contradictory; it is always worth re-reading answers to check for contradictions.

For the Module 3 Paper, because of the small number of candidates, it is difficult to generalise but one common point that did seem to come through was that the answers seemed to suggest a lack of identification of the key issues early and so had a lack of focus in addressing them. There remains a tendency to repeat unnecessarily elements of the question. In the high standard required of the Module 3 Paper, this is a waste of valuable time and does not gain marks.

The examiners give a considerable amount of time to set and mark papers for a small honorarium and deserve our grateful thanks. The candidates clearly make a considerable effort to assimilate all the material and present commendable scripts whether they pass or not. For those who did not manage to achieve a pass this time we sincerely hope that you will not be deterred from sitting the exam on a future occasion. In this regard, it is also encouraging to note the increased number of approved Organisations offering the ICE Law and Contract Management Courses.

Finally, all the candidates, whether or not they were successful this year must be congratulated for the hard work put into learning all the law and contract they have displayed. We hope that they will be able to put it into use in their daily work and will be encouraged to improve their knowledge and take it to a higher standard in years to come. It is our belief that knowledge and understanding of civil engineering law and contract procedures are prerequisites to competent project administration and management. Consequently, it is hoped that all candidates will concur with these sentiments and do their part to encourage their colleagues to commit likewise to advancing their own understanding and knowledge of civil engineering construction law and contracts.

## Examiners' Report

### Pass marks

The pass marks were set at 40% for Module 1, 50% for Module 2 and 65% for Module 3.

Total Number of Candidates taking each Module and % Passing each Module								
	Module 1		Module 2 ICE		Module 2 NEC		Module 3	
	Nr	%	Nr	%	Nr	%	Nr	%
2014	68	62	-	-	72	79	4	0
2013	42	73	-	-	51	73	3	0
2012	36	83	-	-	42	82	6	33
2011	43	81	2	50	41	53	2	50
2010	34	83	1	100	36	67	7	29
2009	46	83	2	100	44	80	2	0
2008	45	84	2	100	43	83	2	0
2007	28	74	1	0	25	52	5	20
2006	47	74	21	100	25	76	3	33
2005	57	60	14	86	37	73	5	0
2004	51	98	40	70	9	78	3	33
2003	51	80	32	65	7	85	9	67
2002	42	93	30	63	7	71	10	10
2001	40	83	24	55	N/A	N/A	12	42

### A certificate is issued to a candidate who passes Module 1, 2, or 3

Copies of the current curriculum, the two case lists and a revised reading list are all available on the ICE website [www.ice.org.uk/law](http://www.ice.org.uk/law) or contact the Management Procurement and Law Department, Institution of Civil Engineers, One Great George Street, London SW1P 3AA t +44 (0)20 7665 2116, or [e contractsanddisputes@ice.org.uk](mailto:contractsanddisputes@ice.org.uk)

The following pages are general comments on how the questions were answered and what the examiners were expecting. Each section of each module has a different examiner. Each exam script is then moderated by the LCMEC (Law and Contract Management Examination Committee) to ensure there is consistency between the examiners.

## Module 1

### Section 1

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#### General comments

Overall, this section was answered reasonably well and the majority of the candidates passed this section.

Generally, candidates lost marks because they had not read the question properly and had therefore failed to answer the question that was asked. For example, simple marks were lost by not setting out all the express terms of a contract after successfully analysing the more difficult issues surrounding the formation of the contract.

There also appeared to be some confusion between contractual breach and negligence. Again, this seemed to be because the questions had not been read properly and therefore candidates became confused about the relevant breach.

Most candidates demonstrated a very good understanding of the legal issues and the very best answers were well structured and contained sensible application of the relevant law to the facts.

#### Question 1

This was a popular question and was attempted by over three-quarters of the candidates. 84% of the candidates who attempted this question obtained a pass.

- a) The first half of this question was answered very well with most candidates recognising that it concerned offer, counter-offer and acceptance. However, most candidates missed out on the majority of marks by failing to answer the second part of the question. Only a few candidates set out the express and implied terms of the contract.
- b) Generally, this part was one of the best answered. Most candidates identified that there was a breach of contract and applied the principles of *Hadley v Baxendale* to the various heads of loss. The best answers were well structured and provided some discussion as to whether SML would have been aware of the loss of potential profit. Many candidates failed to identify that SML were in breach of the implied terms under the contract. Some candidates identified a breach of tortious obligations instead.

#### Question 2

Over a third of candidates attempted this question; however only 28% of candidates obtained a pass.

- a) This part was not answered well. Most candidates failed to obtain any marks at all. Candidates failed to identify that this answer was about agency and whether John had actual or apparent authority to sell the cars to Hilary. Candidates either set out the principles of formation of contract or discussed vicarious liability.
- b) Candidates performed much better on this part. Most candidates were able to identify that the question was about misrepresentation. Generally candidates spent time identifying the different types of misrepresentation which was not required. The best answers set out the principles of misrepresentation as well as identifying that there was a potential breach of contract.
- c) This part was adequately answered by most candidates. However candidates focused on rescission as a remedy for misrepresentation; rather than discussing whether the breach of the express term to deliver the cars on time was important enough for Hilary to treat the contract as terminated. Also many candidates wasted time discussing other remedies when the question was simply about rescission.

### Question 3

This was a popular question and was also attempted by over three-quarters of the candidates. However, just over half of the candidates who attempted this question obtained a pass.

- a) This part was answered very well and most candidates were able to identify the fact that the invitation to tender was not an offer.
- b) This part was answered reasonably well. Many candidates identified the fact that the question required discussion of liquidated damages and whether the sum of damages was a genuine pre-estimate of the level of damages that was likely to be suffered. Candidates lost marks by failing to discuss whether liquidated damages are an exhaustive remedy. Candidates who did badly on this question failed to discuss liquidated damages and instead focussed on terms and conditions and mitigation.
- c) Again candidates did reasonably well on this part. Many candidates lost marks by failing to identify that the question was about the reasonableness of the exclusion clause. Again there was some confusion as to whether there was a breach of contract or a breach of tortious duty. The best answers correctly identified the breach and went on to discuss and conclude as to the reasonableness of the clause. Many candidates lost marks by failing to discuss the contra proferentem rule and whether the clause covered the damage caused by the breach.

## Section 2

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### General comments

Most candidates demonstrated a sound understanding of the principles of the law of Tort demanded by the questions.

Easy marks were lost by poor time management and lack of examination technique – some candidates clearly had a reasonable understanding of the law, but simply dumped case names without applying them to the question, which was frustrating as they failed to score as highly as they could have done.

The best candidates gave well-reasoned answers using case law to illustrate how they were applying the law to the facts. On the other hand, there were still far too many candidates who simply trotted out one or two stock phrases in the hope that they would fit: these candidates failed to show the examiner whether they understood the law. It is always much more attractive to make the answer fit the question, than try to fit the question to the answer the candidate has prepared. There were a handful of candidates who showed no grasp of the subject whatsoever.

Candidates struggle to differentiate the measure of damages in Contract and Tort, applying contract case law in the Tort questions. This is an easy area for improvement and one that candidates should concentrate upon; otherwise marks will continue to be thrown away.

### Question 4

This was the most popular question by some margin and was generally well answered. It was clear that some candidates were simply copying out sections of the statute rather than answering the question from a sound understanding of the Occupiers' Liability. Almost all candidates spotted that the boys were trespassers and that as such the correct statute is the 1984 Act.

Good knowledge of case law relating to allurement of children was demonstrated.

Very few candidates analysed the facts with enough care and so failed to separate Sam and Jake when considering their claims. As a result, candidates tended to assume that Sam's injury was caused on Stan's premises.

Many candidates failed to deal with the distinction between physical injury and damage to property (only the former being recoverable under the 1984 Act).

## Question 5

Question 5 was another popular question. There was a wide disparity in the understanding demonstrated by the candidates' answers.

Easy marks were lost by candidates jumping straight in with *Rylands v Fletcher* (which was sign posted in the question) without discussing the possible application of other forms of nuisance.

There was repeated confusion between nuisance and trespass, but generally candidates showed a good understanding of the rules in *Rylands v Fletcher* and were able to apply them to the facts. Good candidates were able to discuss the application of the rules and analysing the facts to question whether the RvF test was met.

Many candidates struggled to explain what is meant by strict liability.

There was poor overall performance in considering the losses incurred by the various interested parties. This might well have been due to time pressures in dealing with the last part of the question, but marks were thrown away by candidates failing to think. A large number of the candidates failed to read the question carefully and failed to spot that the Allotment Association had no interest in the land affected by the spillage.

## Question 6

This was the least popular question and the marks awarded ranged from 1/25 at one end to 21/25 at the other.

There were 16 marks available for the first part of this question. Candidates who scored high marks made the most of this and took the opportunity to show-case their knowledge of the law of negligent misstatement. To answer this question well, candidates needed a good understanding of *Hedley Byrne v Heller* so as to apply it to the facts.

Stronger candidates took the chance to analyse the standard of care owed by professionals and apply the Bolam test.

Some candidates tried to shoe-horn the facts into a contract claim, which was a poor use of their time – the question was clearly about negligent misstatement and not contractual misrepresentation.

Even candidates who spotted negligent misstatement were confused between this tortious right of action and contractual misrepresentation and the Misrepresentation Act 1967.

The second part of the question allowed candidates to discuss recovery of damages in tort for pure economic loss and to identify that as a key reason for the development of the law of professional negligence / negligent misstatement. Most candidates were too superficial in their answers to be awarded all five marks for this part of the question.

Similarly the final part of the question required a discursive answer about warnings and notices limiting the scope of the duty of care. The better candidates spotted that this very exclusion was the exclusion allowed in *Hedley Byrne v Heller*.

## Module 2

### Section 1

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#### General comments

There was a slight increase in the pass rate for section 1, up from 75% last year to 78%.

It was encouraging to again see candidates in the main using NEC language and terminology, with the exception of various incorrect references to Completion and Completion Date. This in particular impacted on scores for Question 2.

For short answers reliant on a particular clause, if two marks are on offer, then it's worth citing the clause number and briefly explaining its relevance. On occasion the clause number was cited but the candidate failed to explain their conclusion.

Further, merely citing the clause word-for-word as the answer with no perspective will likely be insufficient, particularly for parts with higher marks on offer. We are looking to identify understanding and correct application and need to see conclusions e.g. "...is dealt with by clause ##, which under these circumstances..."

On several questions candidates lost marks where parts of the same answer were contradictory. It seemed likely an initial answer was given which subsequently evolved during the exam. As the answer developed the correct conclusion was sometimes reached. In the extreme an answer said "no it cannot" then a few lines later "yes it can". It is worth re-reading answers to check for contradictions.

#### Question 1

This question was answered by 31 of the 72 candidates and was the 3<sup>rd</sup> most popular question. It attracted an average score of 15.2 out of 25. 21 candidates achieved a pass mark in this question.

a) This part was answered correctly by the majority.

b) Several candidates answered this part correctly and comprehensively.

For the rest, most answers cited clause 63.1 with confidence and explained how the assessment was to be based on Defined Cost. However the applied understanding of this principle was lacking – which the question was designed to draw out.

Over a third of candidates assumed the Price in the Activity Schedule was used in the assessment of the compensation event, by its comparison with the Defined Cost of the new generator.

Several candidates thought a breakdown of the original Activity Schedule Price was necessary and some suggested it was impossible to change the Works Information.

It was clear that candidates on the whole knew the relevant clause references, procedure and timings for compensation events. However an understanding of the principles of compensation event assessment is just as important. Further practical worked examples may prove useful preparation for future candidates.

c) This was cited correctly most of the time.

d) Most candidates correctly identified that the Prices could reduce. Again answers homed in on Defined Cost + Fee as a basis for assessment. Very few cited the correct residual Price that would remain in the Activity Schedule. Fewer still grappled with how the Activity Schedule would be updated to retain this Price. Whilst there is no absolute answer, the question was looking for a sensible solution.

e) Most appreciated the choice of main option did not affect the general approach of assessment, but around half missed marks by failing to mention the Schedule of Cost Components and the treatment of Subcontractor costs.

f) The vast majority of candidates answered this well and correctly cited clause 65.2. Most talked around the subject of risk allowances confidently and concluded these were distinct from assumptions that may be taken by the *Project Manager*.



## Question 2

This was the most popular question answered by 53 of the candidates. It attracted the highest average mark of 16.8 and 41 candidates achieved a pass mark.

- a) Too many candidates lost easy marks here by talking about the Completion Date, when the question referred to Completion.
- b) This was answered well, with some candidates perceptively citing clause 12.3 – which although not in the mark scheme was an appropriate core condition and attracted marks.
- c) The absence of capitalisation made this difficult to mark as some candidates ambiguously referenced ‘planned completion date’ or ‘Completion date’. It would be advisable to reference ‘planned Completion’ or ‘date of Completion’ to avoid confusion. No marks were lost due to this, but it came close on occasion where the demonstration of understanding relied on the correct distinction from ‘Completion Date’.
- d) In the main this was answered well by the majority of candidates. The question was designed to draw out whether the wider role of Works Information was appreciated. Some marks were lost where candidates simply cited clauses that mentioned the Works Information, rather than choosing clauses which relied on statements made within it.
- e) This part was answered well with most candidates identifying that an early warning was appropriate and that immediate notification of a compensation event might be premature. The best answers acknowledged that the *Contractor* was not precluded from notifying a compensation event, but that no instruction had yet been given changing the Works Information.
- f) Most candidates correctly identified the *Project Manager* as the only role that can change the Works Information under clause 14.3, though few mentioned delegation under clause 14.2. Some candidates were unclear about the operation of clause 13.7. In particular some confusion was evident when considered together with clause 61.1 which talks about timing of the notifications and instructions, which is compatible with the requirement of clause 13.7 to keep notifications separate.

## Question 3

This was the least popular question, attempted by 25 of the 72 candidates, averaging a mark of 13.9, the lowest of all the questions in this section. 68% of candidates achieved a mark of 13 or higher.

- a) The majority of candidates correctly identified that Option C would offer a solution. Most homed in on the opportunity main option C or D presented the *Employer* in terms of potential to make savings on the budget of £30m. However fewer candidates cited the *share ranges* and *share percentages* in Contract Data and how these could be set to achieve the budget cap, save for compensation events. No candidate cited clause 63.11 as a possible motivation to incentivise the *Contractor* to submit proposals for value engineering.
- b) Most candidates correctly suggested main option A where predictability of spend was the single most important factor. The best answers went on to acknowledge that compensation events may still bring the project in over the £30m cap, but that the Works Information and Site Information was strong which in turn reduced the potential for compensation events. Some candidates suggested option B would be suitable but did not explore the issue of potential re-measurement, which would reduce certainty. Some answers incorrectly argued that tender comparisons would be easier under main option B, since under option A it would not be known what volumes the *Contractor* had allowed for.
- c) This part was answered poorly by the majority of candidates. The question was designed in contrast to parts a) and b) to present a scenario with significant and unpredictable earthwork

volumes. Few candidates suggested option B or D and fewer still explained that a Bill of Quantities approach would reduce the *Contractor's* risk as the Total of the Prices could vary through re-measurement, without compensation event.

Most candidates suggested a target mechanism would be less risky to the *Contractor* owing to the *Contractor's* share – attracting some of the available marks.

d) Very few candidates achieved all 6 available marks for this part, which should have been fairly easy to achieve. Many answers described the Works Information, Site Information and Contract Data, for which no marks were available. The question was concerned with the *conditions of contract*.

Approximately a third of candidates incorrectly believed Y clauses were only relevant to main option selection, a third correctly explained they are jurisdiction specific, whilst the remaining third offered no answer to this element of the question.

e) On the whole this part was answered well with the majority of candidates scoring highly. However several candidates cited the Price for Work Done to Date definitions for main options A and C, but failed to provide the conclusion required by the question as to their impacts on resource requirements.

#### Question 4

This was the second most popular question attempted by 35 of the 72 candidates, averaging a mark of 16.3, the second highest. 80% of the candidates achieved a pass mark of 13 or higher, making this the most successfully answered question in this section.

In general a strong awareness of the role of the *Supervisor* and the workings of clause 4 was evident across all parts of this question. Furthermore a sound understanding of the interaction of clause 4 with clause 6 for compensation events was also clear and with a few exceptions, candidates correctly introduced the early warning process appropriately.

- a) Most candidates achieved full marks for this part, although several incorrectly stated that tests and inspections were only triggered in relation to notified Defects.
- b) This question was answered well on the whole with most candidates correctly stating the inspection could proceed. A few candidates incorrectly answered that it could not and some of those argued the *Supervisor* needed to reply to the notified inspection within the *period for reply*.
- c) The early warning mechanism was appropriately included in most answers to this part, followed by good explanation of the potential for the *Contractor* to notify a compensation event. Several candidates stated the *Supervisor* should instruct a risk reduction meeting. It is the *Project Manager* who would give this instruction, not the *Supervisor*. No marks were lost on this occasion, but it is important to understand the *Supervisor* discusses such issues with the *Project Manager*.
- d) Too few of the answers to this part considered inviting the university to a risk reduction meeting. For answers that did, a richer set of options and procedures were explored, attracting higher marks. Most candidates correctly concluded the event would qualify as a compensation event, although many cited clause 60.1(3). This attracted the marks but 60.1(16) would have been more relevant.
- e) Very few candidates dropped more than a couple of marks in this part, which was answered very well. A strong appreciation was evident of both the *Supervisor's* power of search and how this related to clause 6 in the event tests and inspections were not appropriately notified.
- f) Most candidates recognised the follow-on nature of part f) from part e) and achieved both available marks. The best answers cited the relevant condition within 60.1(10). A few candidates deviated into discussion on Defect correction.

## Section 2

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### General comments

The average mark for this section rose significantly from 11.8 last year to 14.3 this year. This is very encouraging and there were just a handful of candidates scoring quite low marks.

Most candidates again have tried to actually answer the questions in front of them, which of course is good. Some of the scripts were barely legible, perhaps a sign of modern day technology replacing the art of writing! In a few instances candidates still wrote absolutely nothing for some parts of questions, so no marks could be awarded for those parts. One candidate fared little better with just one sentence offered for a question worth 25 marks.

The number of candidates increased this year to 72, also encouraging.

### Question 5

24 candidates attempted this question, with an average mark of 13.8 achieved.

- (a) Most candidates picked up that it was for the Employer to replace the Project Manager by firstly notifying the Contractor of the name of the replacement
- (b) The question was designed to test candidates' knowledge of the limited powers of the Supervisor and the importance of knowing who can/cannot give instructions to whom and about what.
- (c) Most candidates seemed well versed in what powers the Supervisor had to instruct the Contractor to open up the works and what happened when a Defect was/wasn't found; together with the implications of the Contractor ignoring the Works Information hold point.
- (d) This question was reasonably well answered and most candidates looked to establish what had gone wrong with communications and also address the matter in hand to put things right.

### Question 6

26 candidates attempted this question, with the average mark being 14.7.

- (a) The question was designed to tease out candidates' knowledge of the early warning process and use this to solve the particular problem in hand.
- (b) This question was just looking for some practical thoughts on options available to the Employer, most candidates answered this well.
- (c) A few candidates hadn't spotted the termination for any reason being a right of the Employer, but at a greater cost to the Employer than some of the other reasons.
- (d) Most candidates were comfortable referring to the sequence of events that needs to happen where there is termination.
- (e) This question was looking to test knowledge on the options available to the Project Manager, in particular stopping part/all of the works, that this is a compensation event and this has a time period by which a further instruction must be given or else face the Contractor terminating. This was quite well answered.

### Question 7

29 candidates attempted this question, achieving an average of 13.2 marks.

- (a) This part concerned those items missing from the Bill of Quantities that the method of measurement required to be measured. Many candidates wrongly believed this to be a Contractor risk item and therefore they had to do the work but were not paid. This is a mistake in the Bill of Quantities and therefore would be a compensation event under clause 60.6.

- (b) Most people understood the deduction available for non-submission of the first programme by the Contractor and that this didn't apply in this instance.
- (c) There was a mix of answers to this part, plenty of candidates stating the Project Manager should instruct this but in reality only those parts of the design in the Works Information that are required to be submitted for acceptance must be submitted by the Contractor.
- (d) Most candidates picked up that revised programmes can be submitted whenever the Contractor chooses to, the default being the period stated in the Contract Data.

### **Question 8**

26 candidates attempted this question this being the most popular question, achieving an average of 15 marks of the 25 available.

- (a) This part was designed to make sure candidates knew the difference between early warnings and compensation events, and how the two processes interact.
- (b) Most candidates answered this part well, referring to clauses 61.5 and 63.5 in their answer.
- (c) This part was well answered, most referring to the particular clause that governs whether or not such extensions can be made.
- (d) Again, this was well answered, most candidates understanding the way in which compensation events can be deemed accepted.
- (e) This part was looking for candidates to express their knowledge of independent certifiers, drawing on case law in doing so.

## Module 3

### Section 1

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#### General Comments

Only four candidates took the Level 3 Paper this year which makes drawing any statistically wide conclusions extremely difficult. One general point that did seem to come through was that the answers seemed to suggest a lack of identification of the key issues early and so had a lack of focus in addressing them. There remains a tendency to repeat unnecessarily elements of the question. In the high standard required of the Level 3 Paper, this is a waste of valuable time and does not gain marks.

#### Question 1

The compulsory question was generally well answered, although there was an unfortunate tendency to drift from the specifics in some of the answers. The better candidates identified clearly a distinction between Price for Work Done to Date and the compensation event mechanism. This was confused in some of the answers. The lack of precise terminology also undermined the quality of some of the answers. There were references to “*variations*” and “*Engineers certificates*” which suggested confusion by some of the candidates. Generally the candidates reached the appropriate conclusions but some of the candidates failed to develop their answers appropriately.

The second part of the question, which related to the main contractor’s dilemma, was generally not as fully answered as it could be and candidates either concentrated on the sub-contract relationship or the main contract relationship without developing adequately the other. Some candidates tended to provide a “*project management*” type answer rather than on the contractual implications of what was taking place and so provided perhaps sound but not contractually compliant advice on how the matter might be dealt with.

#### Question 2

Question 2 was answered by three out of the four candidates. The answers tended to be satisfactory rather than good, although the candidates may have benefited from the clearer structure in the marking which this question gave them.

The programming issue was generally addressed well. However, none of the candidates identified that there was no deemed acceptance procedure and there was little remedy for the contractor in having the programme rejected. Some candidates suggested that there needed to be an “*agreed programme*” rather than an accepted one which again underlines a lack of precision in the language to be used for the contractual steps in the NEC.

The part of the question on design acceptance was generally answered better by all the candidates. However, each of the candidates tended to become absorbed in the calculation of the extension of time to which the contractor might be due because of the Project Manager’s failure. None of them pointed out that the extension of time the contractor would be due was only the ultimate effect on the completion date rather than the sum total of the delays he had encountered.

The section in the question on the early warning of the additional work caused some confusion with the candidates. A number leapt to the conclusion that an instruction had been issued, and the compensation event mechanism triggered, rather than it merely being at the risk reduction stage. Few candidates developed the implications of the arrangements the contractor had entered into with the supplier and labour only sub-contractor. Some ignored these aspects altogether, which meant they failed to gain relatively easy marks.

#### Question 3

Only one candidate answered Question 3.

#### Question 4

No candidates answered Question 4.

## **Section 2**

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### **General Comments**

Although only four candidates sat the examination, all non-compulsory questions were attempted by at least one candidate.

The standard of answers was similar from all candidates, except in one case for Question 5 and another case for Question 7 where the answers scored higher marks.

The standard of hand writing was variable and some papers appeared rushed.

One candidate referred to a Compensation Event, which is not a term in the ICC Conditions of Contract.

### **Question 5 – compulsory**

This question was about who is liable for additional costs and delays when a part of the Works is physically impossible to construct and how the actions of the various parties can affect this.

The question was not easy to answer as all the parties, Employer, Contractor, Engineer, designer and sub-contractor failed to do what the contract expected in some way or another. So liability was shared amongst them all.

One candidate answered the question in more detail than the others, providing some of the reasoning behind the views expressed. The other candidates provided shorter answers, each amounting to around one and a half pages in total. These shorter answers, which also only had a small number of points made for each part of the question, resulted in lower scores. For example, some half page answers to parts of the question consisted of just two single sentence points.

At least one paper did not appear to have been checked through, as it contained clear mistakes e.g. Employer liable to Employer.

### **Question 6**

One answer contained no references to clause numbers in the Conditions of Contract.

The definition of competence in the CDM Regulations was referred to in one answer but this applies mainly to health and safety matters, not the question in hand.

One candidate made no distinction between adjudication/court/tribunal saying that they are very costly and time consuming.

### **Question 7**

A useful sketch of the site area was drawn by one candidate to assist in answering the question

One candidate misunderstood the principles of Method Related Charges in CESMM and thought that MRC's did not apply if the method changed from the tender. The revising of normal Bill of Quantity rates was answered reasonably well.

### **Question 8**

One candidate answered this question by repeating back the facts without adding further explanation or thinking.

**Institution of Civil Engineers**  
**Examination in Civil Engineering Law and Contract Management 2014**  
**Module 1 (English and Scots Law)**

Monday 9<sup>th</sup> June 2014

Time permitted: 14:00 to 17:20 (3 hours 20 minutes)

There are three questions in Section 1 and three questions in Section 2. Answer **any two** questions from **each section**; a total of **four** questions. Please answer questions from Section 1 in an answer book provided (Yellow book) and answer Section 2 questions in a **separate** answer book provided (Yellow book). All questions carry equal marks.

**Only un-annotated copies of Statutes and Statutory Instruments may be taken in to the Examination.**

**References to Cases and Acts should be quoted where possible.**

Please indicate on the outside of the answer booklets whether your answers will be in respect of Scots Law.

## Section 1

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### Question 1

Candy N' Cakes Ltd ("CNC") entered into negotiations with Sweet Machines Ltd ("SML") to supply and install sweet dispensers in CNC's sweet shop in Westfields, Shepherds Bush.

SML sent CNC a letter quoting £10,000 to supply and install four sweet dispensers. Enclosed with the letter was an order form which stated that the dispensers would be supplied and installed in accordance with SML's standard terms and conditions, which were printed on the back of the order form

CNC replied to SML's letter agreeing to buy the dispensers. CNC enclosed a completed order form as well as their own standard terms and conditions which they requested SML to sign. SML did not respond to CNC's letter.

CNC had organised for Jelly Mama ("JM") a well known sweets manufacturer to visit their new sweet shop with a view to the signing of a potential contract to allow CNC to sell JM's sweets.

SML supplied and installed the sweet dispensers on time. However, the dispensers were not installed properly and collapsed. Stock within the shop, which was worth £5,000, was destroyed and the shop was kept closed for one week whilst the mess was cleared up and new stock was delivered.

While the shop was closed, CNC lost £20,000 in normal profit on the sweets that were stored in the dispensers. As the shop was closed, JM were unable to visit and decided not to go ahead with the contract with CNC. As a result CNC lost out on an additional £100,000 of potential profit on the sale of JM's sweets.

- a) **Was there a contract between CNC and SML? If so, on what express and implied terms was the contract concluded? [12 marks]**
- b) **What remedies does CNC have against SML for the defective machine and to what extent will CNC's losses be recoverable? [13 marks]**



## Section 1

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### Question 2

Hilary recently won a large sum of money for coming first place in a televised baking competition. As a reward, she has decided to buy three Aston Martin cars; one for herself, one for her husband Aiden, and one for her daughter Anna.

Hilary decides to research the cars online and finds a company called "Aston Martins 4 U". She writes to the contact address and one of the directors of the company puts Hilary in touch with John, who is one of their sales representatives.

John explains that Aston Martins 4 U only sell vehicles which have not been owned previously and tells Hilary that the company has the fastest vehicle delivery service in the UK. Hilary decides to buy three brand new 2013 "Vanquish" Aston Martins from Aston Martins 4 U. Hilary wants to surprise her husband for his birthday and so John agrees to deliver one of the cars no later than 12 June 2014 and the other two cars by 19 June 2014 and that the time of the delivery will be of the essence.

Under the terms and conditions of John's contract with Aston Martins 4 U he is only authorised to sell up to 2 vehicles to an individual purchaser. John does not tell this to Hilary but instead puts through the order.

Unfortunately, the car does not arrive by 12 June 2014. When Hilary contacts Aston Martins 4 U to find out when the car will be delivered she discovers that the company only sells used cars and that three cars will be delivered after three months on 12 September 2014.

- a) **Please explain whether Aston Martins 4 U would be entitled to refuse to sell three cars to Hilary. [5 marks]**
  
- b) **Advise Hilary in relation to the potential claims against Aston Martins 4 U. [10 marks]**
  
- c) **Is Hilary entitled to rescind the contract? [10 marks]**

## Section 1

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### Question 3

Sports Club Limited (“SCL”) own a large sports ground in the UK. SCL invites tenders for the design and construction of a large new swimming centre. Pools Limited (“PL”) offer the lowest bid for designing and constructing the new centre for £200,000. SCL have researched PL and, upon receiving bad references, decide not to offer the contract to PL. When PL find out that they have lost the tender to one of their rivals, they immediately write a letter to SCL which says that “SCL had to take the lowest tender” and that PL would sue unless SCL could “prove that its rival put forward a lower bid”.

SCL eventually contracted with Pool Construction Company (“PCC”) to build the centre for £250,000. The contract specified that the work would be completed by 31 March 2014 and stated that if the works were delayed then PCC would be liable to pay liquidated damages of £50,000 per week until the works were complete.

The works were completed on 6 July 2014.

Once the centre was opened, SCL entered into a contract with Lifeguard Limited (“LL”) to service the swimming pools and maintain the necessary chemical levels in the water. The contract between SCL and LL was made on LL’s standard terms and conditions which contain the following clause:

Clause 10: “LL shall have no liability under this contract for any loss or damage arising out of or in connection with any defect in LL’s Services”

After six months, it seems that LL failed to maintain the necessary chemical levels in the water and this has resulted in cracked, damaged and discoloured tiling in four of the swimming pools in the centre. SCL had to pay £50,000 to replace the damaged tiles.

- a) **Advise SCL as to their liability to PL.** [7 marks]
- b) **Discuss whether PCC is liable to pay the liquidated or unliquidated damages to SCL?** [9 marks]
- c) **Advise SCL as to its entitlement to recover damages from LL.** [9 marks]

## Section 2

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### Question 4

Jake, aged 10, and Sam, aged 12, are brothers. One Sunday afternoon, they go out looking for entertainment. Sam suggests to Jake that they should go and play on the old cars at the breaker's yard.

Fat Stan's Auto Recycling is surrounded by 3 metres high of wire fencing topped with barbed wire. The entrance is a large double full height gate, chained up and locked with heavy padlocks.

There is a large hand-painted "KEEP OUT" sign tied to the gates. It reads:

***"Beware loose Rottweiler!***

***Kaiser has big teeth and will not hesitate to take a chunk out of any unauthorised scumbags he catches on this side of the fence!***

***We always prosecute trespassers.***

***Notice to kids: go home and play on your X-Box: this is not a playground!***

***You've been warned: keep out!"***

Jake and Sam do not have an X-Box and so ignore the notice. The dog is not loose but chained up. He growls and barks at the children. Jake and Sam work out that they can avoid the reach of the dog by climbing over the gates and by jumping onto a tower of scrapped cars.

When Jake jumps, he slips and falls 3 metres to the ground. He lands on a pile of rusty motor parts, sustaining deep cuts and bruises and a broken leg. Sam tries to climb back over the gate to raise the alarm, but his clothes get caught on the barbed wire. He twists his ankle when he hits the ground outside the gate and his clothes are torn to shreds.

The childrens' solicitor has written to Stan, the owner of the breaker's yard, telling him that he is responsible and suggests that Stan notifies his insurance company. The letter states that the pile of rusty scrap parts was deliberately left in a place where someone would land on them if they jumped down from the gate. Stan admits to his solicitor that the scrap is strategically placed to deter anyone from scaling the fence.

- a. Is Stan responsible for Jake and Sam's injuries? If so why and on what basis? [11 marks]
- b. Explain whether any of the following give Stan a defence or impact on any claim:
- i. Stan says it is ridiculous to expect someone to be so stupid as to jump off the fence and land on his piles of scrap.
  - ii. Stan says he could not have done anything more to keep kids out.
  - iii. Stan says that the kids were trespassing and were clearly warned of the danger by the sign.
  - iv. Jake and Sam are notorious in the area for trouble making and their parents are responsible for failing to keep them indoors. [11 marks]
- c. If Jake and Sam have a claim against Stan, what can they claim for? [3 marks]

## Section 2

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### Question 5

Rob White owns his home at 65 Summer Road. Summer Road Allotments Association occupies half an acre of land to the side of 65 Summer Road. The allotment land is split into 20 equal allotments.

In 2005 Mr White sold the allotment site to the local Parish Council for £2,500. The Parish Council charges the allotment holders individually a rent of £20 a year per plot.

During an unusually heavy storm, a tree on his land falls on his adjacent 4000 gallon domestic oil tank. The old tank is very old and rusty. The weight of the tree ruptures the tank and over a period of one week 2500 gallons of oil run out of the tank onto 3 of the next-door allotments.

The soil becomes saturated with Kerosene, but a pollution expert advises the Council that it will not move beyond the three affected plots. The Parish Council receives a quotation for £5,000 for removing and disposing of the contaminated soil from the three plots. The Parish Council asks Mr White to pay.

Mr White says:

- I. Even if it is his fault, it is wholly disproportionate to pay to clean up the soil – the affected land is only worth £1000 max.
- II. The three allotment holders can easily be relocated to a part of the site that is unpolluted.
- III. The tank was there before he sold the land. If the Parish Council was worried about oil leaks, they should not have put allotments right next to the tank.
- IV. The tank would have lasted years but for the storm bringing the tree down.

Mr White also receives a letter from the chairman of Summer Road Allotments Association demanding he pay damages for destruction of prize winning chrysanthemums, and the cost of buying alternative organic vegetables for the next 3 years. The letter says, “You may think it was not your fault, but the Citizens Advice Bureau has said it is because of a case called Rylands and Fletcher”.

Note: Candidates are not required to consider any regulatory breaches caused by the oil pollution.

- a. **Assess whether Mr White is liable to the Parish Council and/or the Allotment Association.** [11 marks]
- b. **Does Mr White have any defences available to him?** [7 marks]
- c. **Are the losses claimed recoverable from Mr White and if so on what basis?** [7 marks]

## Section 2

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### Question 6

Dave, a DIY enthusiast, visits the Website of “Expert Building Advice”, which is operated by Doug Hall Building Sales Ltd.

The website states: “The one stop shop building expert: our building expert, Doug Hall has been in the building industry for 25 years. Doug has forgotten more than most builders know, so ask him any building related question for an expert answer.”

Dave emails the following question: “Hi, Doug, Great website. I need to get a waste pipe from a shower into a soil pipe on the other side of the room. The joists go the wrong way. I am thinking of cutting notches out of the joists to make sure I can get the right fall on the pipe. Is there any reason why I should not proceed with this? Would it be dangerous? Cheers Dave”.

Doug Hall replied by email: “Thanks for your question, Dave. Glad you like the website. You should use the shortest length of waste that you can to get the best fall. As long as you take care, I can’t see any problem notching into the joists. We sell hole cutters and all the pipe you will need. You can order online or in store. Any more questions, just ask. All the best, Doug.”

In fact Doug’s advice is far too simplistic, as the answer depends upon the dimensions of the joist, as well as the diameter of the pipe. Dave’s joists are 6” deep. In order to install the 2.5” pipe with enough fall, he cuts 4” deep notches leaving “plenty of room for the fall”. There are strict building regulations governing the depth of notches in joists, but Dave knows nothing of these.

As a result of Dave’s deep notching, the joists lose their structural integrity and eventually the floor gives way, causing significant structural damage. Unfortunately, when the floor collapses Dave is asleep downstairs in his chair and suffers multiple injuries as he is showered with plaster and debris.

After Doug hears of Dave’s disaster, he adds the following disclaimer to his website: “answers are given without responsibility”.

You are consulted by Dave, who says he wants to pursue a claim against Doug.

- a. **Advise Dave of have any rights and remedies he has against [16 marks]  
Doug in respect of his email advice?**
- b. **Would it make any difference if the only damage suffered was a [5 marks]  
loss in value of Dave’s property?**
- c. **If Doug’s disclaimer had been on his website before Dave asked [4 marks]  
his question, would it change your advice to Dave?**

## Law and Contract Management points for answer

### Module 1

#### Section 1

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#### Question 1

- a. Discussion of offer, counter-offer, acceptance and consideration **[6 marks]**
- Express Terms: **[4 marks]**
- SML to supply and install dispensers (by a specified date) (1 mark)
  - CNC to pay £10,000 to SML (1 mark)
  - CNC's standard terms and conditions apply (2 marks)
- Some discussion of the battle of the forms and application of the 'last shot' doctrine, or discussion of basic principles of offer and acceptance where a counter-offer which introduces new terms to a previous offer destroys that offer (Hyde v Wrench (1840)).
- Implied Terms: **[2 marks]**
- The services are sold in the course of business so the Supply of Goods and Services Act 1982 s.13 applies. As such, there is an implied term that SML will carry out the installation of the dispensers with reasonable care and skill. (1 mark)
- There will also be an implied term that the dispensers will be reasonably fit for purpose (Supply of Goods and Services Act 1982 s.4(5)). (1mark)
- b. **[13 marks]**
- The starting point again is the fact that SML are in breach of the implied terms under the contract so CNC are, *prima facie*, entitled to damages. The candidate should identify these breaches. (2 marks)
  - Contractual damages compensate the innocent party for the loss which he has suffered as a result of the breach of contract so long as they are reasonably foreseeable and not too remote. The objective of damages in contract is to place the innocent party in the position he would have been in had the contract been performed. (2 marks)
  - Remoteness - damages cannot be recovered where the loss which the innocent party has suffered is too remote a consequence of the other's breach of contract. The current law on remoteness was laid down in Hadley v Baxendale (1854), and clarified in Diamond v Campbell-Jones (1961) and Cottrill v Steyning and Littlehampton Building Society (1966). (2 marks)
  - The innocent party can recover damages for its losses: (2 marks)
    - which arise naturally from the breach; and
    - were in the reasonable contemplation of the parties at the time of the contract as the probable result of the breach.
  - CNC would almost certainly be able to recover the loss of stock (£5,000); (2 marks)
  - The recoverability of the loss of normal profit (£20,000) depends on the facts but probably falls within the 1st limb of Hadley v Baxendale and is therefore recoverable. (1 marks)
  - The loss of potential profit (£100,000) ordinary profit depends on SML's knowledge (2nd limb of Hadley v Baxendale). Candidates should discuss what may be recoverable both if SML were aware and unaware of the potential contract with JM. (2 marks)

## Question 2

- a.** - John was an agent for Aston Martins 4 U (1 mark) **[5 marks]**  
- John did not have actual authority to sell three cars to Hilary (1 mark)  
- However, John did have apparent authority, which is based on a representation from the principal (in words or by conduct) to a third party that the agent has authority. Where the third party has relied on the representation, the principal is prevented from denying the agent's authority. By putting Hilary in touch with John, Aston Martins 4 U made a representation that he had authority to sell the cars to her. (3 marks)
- b.** - Candidates should identify that Hilary may have a misrepresentation claim against Aston Martins 4 U. (1 mark) **[10 marks]**  
- A misrepresentation must be of fact and not opinion (*Bissett v Wilkinson* (1927)). Both of John's statements were of fact and not opinion. (2 marks)  
- A misrepresentation must be false, and both statements by John were untrue. (2 marks)  
- A misrepresentation must also be relied upon by the other party and induce them into entering the contract. Some discussion of whether Hilary was induced to enter the contract based on the statements (3 marks).  
- Candidates should discuss breach of contract. (2 marks)
- c.** - It was an express term of the contract that the cars would be delivered on 12 and 19 June respectively. (2 marks) **[10 marks]**  
- Candidates should discuss whether this term was less important so as to enable Hilary to treat the contract as terminated. There may be some discussion in relation to the difference between the earlier delivery date and the lesser important later dates. (4 marks)  
- Candidates may discuss the parole evidence rule that extrinsic evidence cannot be used to vary the terms of a written contract (*Henderson v Arthur* (1907)). (2marks)  
- As the contract stated that time of delivery is of the essence, Hilary is able to rescind the contract. (2 marks)

## Question 3

- a.** - SCL's invitation to tender was not an offer to accept the lowest bid but an invitation to treat. (2 marks) **[7 marks]**  
- Therefore, PL's bid was an offer. (1 mark)  
- There was no obligation for SCL to accept the lowest offer as their invitation to tender did not commit them to this (2 marks)  
- SCL were therefore free to reject PL's tender for any reason. (2 marks)
- b.** Liquidated damages could be a penalty clause. (1 mark) **[9 marks]**  
Discussion as to whether liquidated damages are an exhaustive remedy (3 marks)  
- Discussion as to whether the sum of damages was a genuine pre-estimate of the level of damages that was likely to be suffered (objective test). The test for a genuine pre-estimate is that there is a substantial discrepancy between the level of damages stipulated in the contract and the level of damages that was likely to be suffered. *Alfred McAlpine Capital Projects v Tile Box Ltd* (2005) (4 marks)  
- It is unlikely that SCL will be able to enforce the liquidated damages clause. (1 mark)
- c.** - Firstly, it is necessary to establish that LL is in breach of contract for failing to **[9 marks]**



maintain the necessary chemical levels in the water. (1 mark)

- Does the clause cover the damage which was caused by the breach? The courts will apply the *contra proferentem* rule (that where there is doubt about the meaning of the contract, the words will be construed against the person who put them forward) *Tam Wing Chuen v Bank of Credit and Commerce* (1996). The damage was clearly caused by the defects in LL's service and is therefore covered by the clause. (3 marks)

- The situation must then be considered in respect of the operation of the Unfair Contract Terms Act 1977 ("UCTA"). The parties are dealing on one of the party's written standard terms and that party is seeking to exclude or restrict his liability in respect of its breach so s. 3(2) of UCTA applies: the exclusion clause must satisfy the test of reasonableness set out in s. 11: where the term is "*a fair and reasonable one to be included having regard to the circumstances which were, or ought reasonably to have been, known to or in the contemplation of the parties when the contract was made*". (3 marks)

- The candidates should discuss and draw their own conclusions as to the reasonableness of the exclusion clause. It is likely to be found unreasonable. (2 marks)

## Section 2

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### Question 4

a. This question concerns Occupiers Liability; liability to trespassers; and the effect of warnings.

- In order for Stan to be liable he must owe a duty of care and be in breach of that duty and that any such breach must have led to the loss. **[2 marks]**
- Candidates should identify that Jake and Sam have different claims. Jake injured himself on landing in Stan's yard, whereas Sam injured himself jumping from the fence when he landed outside the land he occupied.
- Stan is an occupier of the premises upon which the scrap yard is situated and therefore has statutory duties to visitors and in certain circumstances to trespassers under the Occupiers Liability Acts of 1957 and 1984. Premises mean land, not just buildings.
- Candidates to consider the obligations of Fat Stan's Breakers as occupier of the site to people using the premises under the Occupiers Liability Act 1957. Candidates to demonstrate familiarity with the 1957 Act establish whether the facts of this case give rise to a duty under it.
- Section 2(1) imposes a common duty of care to visitors using the premises for the purposes for which he is invited or permitted by the occupier to be there. Candidates to consider whether Jake and Sam are visitors. Consider whether they had implied permission to enter upon the premises or are trespassers. Consider circumstances in which trespassing children can be considered lawful visitors.
- Jake and Sam are very unlikely to be considered to be lawful visitors, but trespassers and so a claim based upon OLA 1957 is not available to them.
- Candidates should identify that Stan owes a duty of care to the boys as trespassers under the Occupiers Liability Act 1984. **[3 marks]**  
There needs to be good evidence to make out the criteria for liability under the 1984 Act.
- The duty is owed when there is a risk of injury to a "non visitor" to the actual or deemed knowledge of the occupier.
- Candidates to explain test to establish whether duty owed under 84 Act: (An occupier of premises owes a duty to another (not being his visitor) in

respect of any risk of suffering injury if

- (a) he is aware of the danger or has reasonable grounds to believe that it exists;
- (b) he knows or has reasonable grounds to believe that the other is in the vicinity of the danger concerned or that he may come into the vicinity of the danger (in either case, whether the other has lawful authority for being in that vicinity or not); and
- (c) the risk is one against which, in all the circumstances of the case, he may reasonably be expected to offer the other some protection.)

Stan will owe a duty of care under the 84 Act if (a) he knows or has reasonable grounds to believe of the existence of danger on his land.

**[2 marks]**

Candidates to consider whether he was aware of the risk of injury.

- The facts suggest that he is aware and believes that the danger is so obvious as to put off trespassers

b) Stan knows or has reasonable grounds to believe the trespasser, for which we can include a class of trespasser – a playing child, is in vicinity of the danger or is likely to come to it.

**[2 marks]**

Candidates to consider allurements of a breaker's yard to children as well as thieves. The notice suggests that he is aware that trespassers will be in the vicinity of the danger.

White v St Albans CC [1980]

c) the risk is one which in all the circumstances, he may reasonably be expected to offer some protection

**[2 marks]**

Stance of courts tougher when considering children.

Dangerous scrap cars are an allurements to children.

A risk assessment might have revealed that there was a danger of a child entering the premises by jumping over the fence.

Where children are potential trespassers the occupier has duty to protect against obvious risks where the child might not be able to recognise a danger you would expect an adult to recognise.

Did the children know what they were doing was dangerous?

Nothing to show that they had a real understanding of the risk of injury.

Candidates to consider whether Stan in breach of his duty and whether breach causes the injuries. Sam not injured due to Stan's breach.

**b.**

**i** No duty is owed under the 1984 Act to any person in respect of risks willingly accepted as his by that person.

**[3 marks]**

Stan will have a defence if he can prove that the risk is so obvious as to be obvious to children as well as adults.

Children can be expected to be aware of everyday hazards. Jumping is inherently dangerous, but is a pile of old car parts a hazard of which children should be aware?

OLA 84's duty to trespassers is a duty of common humanity – and will not aid Stan if he has deliberately left parts with the intention of harming trespassers.

**ii** Candidates to consider how far Stan ought to have gone in protecting children from the risk

**[3 marks]**

Harrington v BRB (1972) could Stan have foreseen a risk of injury?

If he did foresee the risk of children climbing the fence to gain entry, did he do enough to guard against that risk?

It appears from his sign that Stan knew that children might try to get in to the yard to use it as a "playground". It will be for the court to decide on the facts whether he should have done more to keep children out.

- iii No duty to warn under the 1984 Act. Lord Hoffman – common sense approach “it will be extremely rare for an occupier of land to be under a duty to prevent people from undertaking risks which are inherent in the activities they freely choose to undertake upon the land”. [3 marks]

The Act provides:

“Any duty owed by virtue of this section in respect of a risk may, in an appropriate case, be discharged by taking such steps as are reasonable in all the circumstances of the case to give warning of the danger concerned or to discourage persons from incurring the risk.”

Candidates should demonstrate an understanding between the difference between a notice warning visitors, which may be a contractual term of entry, where UCTA applies and a warning such as Stan’s to the public at large.

- iv Phipps v Rochester Corporation (1955) -Parents should not allow young children to play unsupervised. But here, there is no evidence that the children’s parents knew that the boys were going out to play in a dangerous place. [2 marks]

- c. The ’84 Act relates to claims for injury only, and is plainly inapplicable to damage to the property of the trespasser. [3 marks]

Candidates must show that a breach of a duty causes the loss suffered. Only breach of duty in relation to Sam was danger posed by barbed wire, caused only damage to clothes – not covered by the Act

However, candidates may consider whether if Stan is in breach of his duty of ‘common humanity’ in order to satisfy a successful claim under OLA 84. Jake may also have a common law claim for breach of that duty, which would enable his property damages to be recovered.

### Question 5

- a. This question concerns the rule in Rylands v Fletcher. It requires candidates to show a thorough understanding of the tests in the case and to apply them to the facts. Candidates are expected to demonstrate a good grasp of the measure of damages and the foreseeability of loss.

Candidates to consider:

Private nuisance. Interference with the use or enjoyment of land that causes injury in relation to an ownership right in that land. Candidates to identify that this was a single act and whether private nuisance. [3 marks]

Public nuisance. Unlawful act or omission, so widespread and indiscriminate in effect that it obstructs, damages or inconveniences the rights of the community. On these facts the leak is unlikely to damage the rights of the community – Allotment Association is not (a) the community at large and (b) damage is not indiscriminate.

Rylands v Fletcher (1868) 3HL 330 [3 marks]

Candidates to consider that the facts fit most closely with a case based upon the rule in R v F.

Strict liability. Where a person keeps anything on his land likely to cause mischief if it escapes. Blackburn J: “the person for his own purposes brings on his lands and collects and keeps there anything likely to a mischief if it escapes must keep it at

his peril, and, if he does not do so, is prima facie answerable for all the damage which is the natural consequence if it escapes.'  
Charing Cross Electricity Supply Co v Hydraulic Power Co (1914)

Does not depend on ownership of land but plaintiff must have some interest in it.  
Consider whether allotment holders have interest in the land.

Test

[5 marks]

- the nature of the 'things' brought onto the land (natural or non-natural). (The heating oil.)
- Is storage of oil a 'non-natural user'?
- the foreseeability that the 'thing' could cause damage (irrespective of whether or not the defendant had exercised all reasonable care and skill).  
Foreseeable that oil will cause damage if it leaks onto neighbouring land.
- whether or not there has been an 'escape'
- the remoteness of the resulting damage

b. Strict liability once test made out

[1 marks]

Consider whether Act of God defence available

[2 marks]

An act of God, act of a stranger or necessity may be successful provided there is no negligence on the part of the defendant. Consider whether White was negligent – tank old and under tree – might have been identified as a risk.

Nichols v Marsland (1876) 2 ExD 1

Were allotment holders guilty of contributory negligence?

[2 marks]

Is planting right up next to old oil tank negligent?

Law Reform (Contributory Negligence) Act (1945)

Peters v Prince of Wales Theatre (Birmingham) Ltd (1943)

[2 marks]

Damage caused by artificial works done for common benefit of plaintiff and defendant. No liability where a party consents to a dangerous thing being brought to a place where it might cause harm if it escapes unless he can show negligence

Here it is arguable that the Parish Council consented to the presence of the oil tank on the basis that it was there when they purchased the land and the risk of pollution was plain and obvious.

c. Where liability is strict no liability for damage of a type which could not reasonably be foreseen, rather than all direct consequences

[2 marks]

Candidates to examine which losses could reasonably be foreseen.

Has Parish Council suffered a loss – is loss diminution in value of land or cost of remediation?

[3 marks]

Measure of damages for damage to property: difference between the value of claimant's interest in property before and after the damage, not the cost of repair.

Candidates to consider the allotment holders claim and explain their view whether their losses were foreseeable. The Wagon Mound (Nr. 1) (1961)

[2 marks]

Defendant only liable for type of damage, which was reasonably foreseeable.

The Wagon Mound (No.2) [1967] 1 AC 617

However once foreseeability is established, liability is established irrespective of the likelihood of the damage occurring

Hughes v Lord Advocate (1963)

Only type of damage needs to be reasonably foreseen. Nature and extent do not.

## Question 6

This question concerns the tort of negligent misstatement as set out in Hedley Byrne v Heller. It requires the candidates to understand the rules and apply them to the facts.

- a. Candidates should examine both negligence and negligent misstatement. Candidates may consider whether a claim in negligence and consider whether Dave owed a duty by reference to Donoghue v Stevenson [1932]. Test for determining the existence of a duty of care: (a) foresight; (b) proximity; and (c) justice and reasonableness. **[3 marks]**

Candidates to identify this as a potential claim for negligent misstatement and apply the facts to the requirements set out in Hedley Byrne v Heller [1964] **[4 marks]**

There must be reasonable reliance within a special relationship.

Candidates must show that they understand that negligent misstatement is not the same as a contractual representation. No contractual relationship is required. In this case Doug has gratuitously offered his services as an expert advisor.

Candidates should weigh up whether Doug's email exchange created a special relationship with Dave. It should be noted that Dave made it clear that he was seeking advice and Doug unequivocally gave advice/expressed his opinion. **[3 marks]**

Difference between social and 'professional' advice. Social relationships are excluded.

When dealing with member of public more likelihood of reliance when dealing with a professional.

Did Doug know or ought he to have known that Dave would rely upon his advice without further enquiry?

It is clear that Dave did rely upon Doug's advice, but candidates should note that reliance has to be reasonable. **[2 marks]**

"As long as you take care, I can't see any problem notching into the joists."

If Doug owed a duty did this statement discharge it? **[1 marks]**

The advice, whilst incorrect, has the proviso "as long as you take care" might be held to be sufficient to make it unreasonable to rely on the statement without further enquiry.

Causation: Candidates to recognise that Dave will need to show the causal link between the damage and the negligent statement. **[3 marks]**

Foreseeability of damage: the collapse of the floor and the possibility of injury were foreseeable results of the advice being wrong.

The Wagon Mound (Nr. 1) (1961)

Defendant only liable for type of damage, which was reasonably foreseeable.

The Wagon Mound (No.2) [1967] 1 AC 617

However once foreseeability is established, liability is established irrespective of the likelihood of the damage occurring

Hughes v Lord Advocate (1963)

Only type of damage needs to be reasonably foreseen. Nature and extent do not.

Remedies: Dave can claim damages for the damage to his property and for the pecuniary and non-pecuniary damages relating to his injury.

Damages: Candidates to examine claim for property damage, claim for injury.

- b.** Candidates to explain the significant difference between acts and omissions causing on the one hand injury, damage to property, economic loss flowing from injury and damage to property and on the other hand, pure economic loss, where the only damage suffered is economic loss.

**[5 marks]**

This section is an opportunity for candidates to demonstrate they have fully understood the basis under *Hedley Byrne v Heller* for recovering purely financial losses arising from careless statements.

- c.** *Hedley Byrne v Heller* – held “without responsibility” sufficient to avoid liability. Candidates to consider the impact of a warning with regards to reasonableness of reliance as well.

**[4 marks]**

**Institution of Civil Engineers**

**Examination in Civil Engineering Law and Contract Management 2014**

**Module 2 NEC (English and Scots Law)**

Monday 16<sup>th</sup> June 2014

Time permitted: 14:00 to 17.20 (3 hours 20 minutes)

There are four questions in Section 1 and four questions in Section 2.  
Answer **any two** questions from **each Section**; a total of **four** questions.

Please answer questions from Section 1 in an answer book provided (Green book) and answer Section 2 questions in a **separate** answer book provided (Green book).  
All questions carry equal marks.

**You may consult un-marked copies of the NEC3 Engineering and Construction Contract (ECC), NEC3 Engineering and Construction Subcontract (ECS), Statutes, CDM Regulations and CESMM4.**

**All questions must be answered using NEC3 Contracts.**

Please indicate on the outside of the answer booklet whether your answers will be in respect of Scots Law.

## Section 1

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### Question 1

Under an ECC option A contract the Works Information specifies the supply and installation of a 16kVA backup generator for inclusion into the *works*. The Activity Schedule has a corresponding lump sum of £5,000.

- a) **How much will the *Contractor* actually get paid for this work and when will it be assessed? Include reference to relevant defined terms in your answer.** [4 marks]

The *Project Manager* instructs a change to the Works Information deleting the 16kVA generator and replacing it with an 18kVA model. He notifies a compensation event and instructs quotations. The *Contractor* has not yet ordered the generator. The remaining *works* are not affected. The Defined Cost of an 18kVA generator is £10,300.

- b) **The *Contractor* assess the change to the Prices as £5,300 + Fee by comparing the Activity Schedule lump sum with the Defined Cost for the 18kVA model. Explain why this method of assessment is flawed and how the assessment should be made.** [7 marks]
- c) **Which clause of the *conditions of contract* provides lump sums in the Activity Schedule to be used as a basis of assessment? Explain any limitations with its use.** [3 marks]

In another part of the *works* the *Project Manager* instructs a change the Works Information, deleting a small outbuilding. Part of this work was due to be undertaken by a Subcontractor. The *Project Manager* notifies a compensation event and instructs quotations. The Activity Schedule lump sum for the building is £20,000. The forecast Defined Cost + Fee for the omission of the building is assessed at £12,000.

- d) **Explain how the assessment is approached and whether on this occasion the Prices can be reduced. Explain how the Activity Schedule is updated.** [6 marks]
- e) **If the contract was under main option C, how would the *Contractor's* method of assessing Defined Cost within his quotation differ?** [2 marks]

The *Contractor* submitted quotations for several compensation events, all of which included various risk allowances for cost and time matters. The *Project Manager* accepted the quotations. Several months later, due to favourable conditions, much of these allowances proved unnecessary.

- f) **The *Project Manager* notifies a compensation event under 60.1(17) to recover those risk allowances that records now show to have been unnecessary. Explain whether this is or is not a valid course of action, and why?** [3 marks]



## Section 1

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### Question 2

- a) What are the *Project Manager's* main considerations when deciding the date of Completion under clause 30.2? [3 marks]
- b) Under an ECC, clause 6 and its sub-clauses provide a means to change the Completion Date. Give brief details of two further core clauses that provide for change to the Completion Date. [4 marks]
- c) Explain the term 'planned Completion' and its role in assessing compensation events. [4 marks]
- d) Works Information is defined in clause 11.2(19). However the role of Works Information is broader than this. Briefly Identify six further clauses that rely on statements made in the Works Information. [4 marks]

On a project under an ECC main option C, the *Employer* is responsible for all design. During the *works* the *Contractor* realises the drainage specification within the Works Information will not achieve the required performance. The *Contractor* notifies the *Project Manager* of a compensation event under clause 60.1(1) detailing how the Works Information will be changed.

- e) Explain why the notification from the *Contractor* might be premature. What does the Contract require in terms of notification of this kind of compensation event? What communication from the *Contractor* might have been more appropriate? [6 marks]
- f) Explain who can change the Works Information and how. Additionally, assuming the change triggers a compensation event, explain the implications of clause 13.7. [4 marks]

## Section 1

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### Question 3

A local authority has full detailed designs and comprehensive Site Information for a proposed new school. The decision to administer the project under an NEC3 ECC has been made. The *Employer's* maximum budget is £30m, but they would ideally like to realise savings and maximise value for money.

- a) **Which ECC main option would you suggest the local authority adopts to achieve its aims? Explain your answer including any relevant Contract Data considerations.** [5 marks]
- b) **Last year the local authority was criticised for poor forecasting of its expenditure. How would your answer above differ if the single most important factor to the authority was predictability of overall spend on the project?** [3 marks]

The same local authority is planning to build a highway on an new earthwork embankment. Initial level surveys have been undertaken but it is not certain how much the ground will settle. The authority is keen to attract the best price possible from the market.

- c) **Which ECC main option would you suggest the authority adopts for the Contract in these circumstances? Explain why your chosen option might remove some of the financial risk on the *Contractor*.** [5 marks]
- d) **Briefly explain how the *conditions of contract* under an ECC form are assembled. Include in your answer reference to main and secondary options, whether or not they must be taken and why the contract makes a distinction between X and Y clauses.** [6marks]

Under the ECC form of NEC3, main options A and C comprise *conditions of contract* that place very different requirements upon the *Project Manager*. The definition of Price for Work Done to Date is one such example.

- e) **You are advising the local authority regarding the skills and people needed to effectively administer the financial aspects of a major contract. How would your advice differ depending on the choice of main option A or C?** [6 marks]

## Section 1

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### Question 4

- a) **What triggers the applicability of clauses 40.2 to 40.6 inclusive in relation to tests and inspections? [2 marks]**

The *Contractor* notifies the *Supervisor* of an inspection to verify a recent topographical survey. On the morning of the inspection the *Supervisor* realises he is unable to attend. The *Contractor* receives no correspondence from the *Supervisor* in relation to the inspection.

- b) **Can the inspection proceed in the absence of the *Supervisor* named in Contract Data part 1? What is the *Contractor* required to do with respect to the inspection? [4 marks]**

The following Monday the *Supervisor* notifies the *Contractor* of an inspection, scheduled to take place 2 weeks from his notification. He explains he will be on holiday in the interim.

- c) **The *Supervisor's* inspection will significantly delay the *works*. The Accepted Programme shows the topsoil strip is due to start tomorrow. What action could the *Contractor* take? [6 marks]**

The Works Information states the *Employer* is to provide use of a Denison machine and other facilities for concrete testing at a nearby university. Due to a change in the teaching timetable the *Contractor* is informed by the university he will no longer be able to use the facilities as planned.

- d) **What should the *Contractor* do? Briefly explain the procedure and any relevant considerations. [5 marks]**

After overhearing a Subcontractor in the canteen, the *Supervisor* is concerned that some exposed steel reinforcement relating to concrete repairs, may not have been zinc painted in accordance with the Works Information. All related tests and inspections were appropriately notified.

- e) **Explain what powers the *Supervisor* could exercise to allay any uncertainty. In your answer explain if the *Contractor* has to obey and what impact this may have on the Prices and Completion Date if no Defect is found. [6 marks]**
- f) **Assuming the Works Information requires inspections prior to concrete repairs, how would your answer given under e) differ, if no opportunity to inspect was notified by the *Contractor* prior to these works? [2 marks]**

## Section 2

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### Question 5

On a recently awarded NEC3 Engineering and Construction Contract (ECC) Option A contract, incorporating secondary Options X2, X5, X16 and Y(UK)2, the *Project Manager* has an unfortunate accident and likely to be off work for a number of months. The *starting date* had just passed but work was not to start on Site for a few weeks. Two external consultancies were appointed to act in the roles of *Project Manager* and *Supervisor*. The consultancy wrote to the *Employer* saying that Mr James would be taking the role with immediate effect.

a) **As *Employer*, what would you do here?** [4 marks]

A few weeks later, the *Contractor* is carrying out some earthworks and the *Supervisor* calls the *Contractor's* foreman over and says, "stop the excavation work here, I would like to inspect the sub-surface".

b) **What should the foreman do?** [8 marks]

At a later date, the *Supervisor* is not happy as the Works Information clearly states that an inspection of certain works must take place before subsequently covering them up. The *Supervisor* finds those particular works have indeed been covered up.

c) **As *Supervisor*, what action would you take here?** [6 marks]

A quantity surveyor is assisting the *Project Manager* to determine the amount due at an assessment date. The *Contractor* has submitted an application for payment and the surveyor notes two references to "Verbal instruction by *Supervisor* to carry out additional *works* on...[date]...". The amount of money against this is considerable and is marked 'on account'.

d) **What would you advise the *Project Manager* to do here?** [7 marks]

## Section 2

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### Question 6

You are the *Project Manager* on a £10m new build speculative project lasting 18 months. The contract used is ECC Option A with secondary Options X2, X6, X7, X20 and Y(UK)2. About 6 months into the construction works the *Employer* advises the *Project Manager* that the buyer for the finished scheme has pulled out and he wants to look at some options, very quickly.

- a) **What might be the course of action you would take as *Project Manager*?** [6 marks]
- b) **What sorts of options are available to the *Employer* here?** [4 marks]
- c) **Can the *Employer* terminate for the *Contractor's* obligation to Provide the Works for convenience?** [2 marks]
- d) **What needs to happen to put any termination provisions into effect?** [3 marks]

The *Employer* sourced a potential new buyer who they wanted some changes to be made to the scope of the works before committing to the sale. The *Project Manager* instructed the *Contractor* to stop the works immediately.

- e) **How should the *Project Manager* deal with this instruction and can this cessation of works go on indefinitely?** [7 marks]
- f) **What options are available to the *Project Manager* to deal with the changed scope of works?** [3 marks]

## Section 2

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### Question 7

You are the *Project Manager* on a £3m design and build ECC project which is using Option B with secondary Options X7, X15 and Y(UK)2. The *Contractor* submitted his first programme for acceptance in accordance with the timescales of the ECC and this has been accepted by the *Project Manager*. The *Contractor* now realises something required in the Works Information has neither been priced nor shown on the Accepted Programme.

- a) **Can the *Contractor* be paid for this item and what happens now to the programme?** [9 marks]

The *Employer* has recently been on an NEC training course where he remembers there is a clause dealing with deducting money from the *Contractor* if the programme is wrong. The *Employer* hears of the missing item and reminds the *Project Manager* of his duty to retain monies.

- b) **What would you do as *Project Manager*?** [4 marks]

The Works Information contains a list of those parts of the *works* which the *Contractor* is to design. The *Project Manager* notices there are no provisions on the Accepted Programme for design/acceptance.

- c) **What would you do as *Project Manager*?** [7 marks]

The *Contractor* advises that he considers planned Completion may be slipping and sets about trying to address this delay.

- d) **On what grounds can the *Contractor* submit a revision of the programme to the *Project Manager* for acceptance and what happens if the *Contractor* is still late achieving Completion?** [5 marks]

## Section 2

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### Question 8

On an ECC Option C *Employer*-designed contract, the *Project Manager* instructs the *Contractor* to stop work on part of the *works* as, following instructions from the *Employer*, the *Employer's* designer is looking at the implications of changing to a more efficient cost-in-use solution. All parties are keen to minimise additional costs. After due consideration, some two weeks later, a change in design is decided upon and instructed to the *Contractor* as a change to the Works Information.

- a) **What should the *Contractor* do in order to protect his interests under the contract arising from these events?** [10 marks]
- b) **What sanctions are there in the ECC in the event the *Contractor* fails to raise an early warning?** [5 marks]

Two weeks after being instructed to submit a quotation for a compensation event, the *Contractor* informs the *Project Manager* that it is difficult for him to meet the three week deadline.

- c) **How should the *Project Manager* respond?** [2 marks]

In the end, the quotation is submitted within the three week period for submission.

- d) **The *Project Manager* fails to meet his two week deadline for replying to this and the *Contractor* notifies the *Project Manager* that his quotation is deemed accepted. Is he correct?** [5 marks]

The *Employer* hears of this notification by the *Contractor* and is unhappy with him, especially as he has just heard that a recently accepted compensation event quotation turns out to have cost far less than it actually cost the *Contractor*. The *Employer* asks the *Project Manager* to make good this by marking down the next compensation event quotation.

- e) **As *Project Manager*, what is your response to the *Employer*?** [3 marks]

## Law and Contract Management points for answer

### Module 2

#### Section 1

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#### Question 1

##### Points to Answer Module 2 Section 1

##### Question 1

- a. - Option A – Priced Contract with Activity Schedule so 11.2(27) The Price for Work Done to Date is the total of the Prices for each completed activity, free of Defects which would delay or be covered by immediately following work. **[2 marks]**
- The Price of £5,000 will therefore be included in the assessment for the assessment date following the activity's completion. **[2 marks]**
- b. - Cl 63.1 – to assess changes to the Prices as the effect of the compensation event upon the forecast Defined Cost of the work not yet done and the resulting fee. **[2 marks]**
- The *Contractor* needs to get a contemporary open market Defined Cost for the original 16kVA generator also. Component 3 of the Shorter Schedule of Cost Components and Cl. 52.1. **[2 marks]**
- The compensation event is assessed as the difference between the forecast Defined Cost of each scenario (with 16kVA model vs with 18kVA model) and the resulting Fee. **[1 mark]**
- The aim of the compensation event procedure is to isolate and compensate for the effects of the event. They do not afford either Party a 'right' to re-visit / make-good any losses or gains in the tendered Prices.
- c. - Cl. 63.14. **[1 mark]**
- This method of assessment can only be used if the *Project Manager* and *Contractor* both agree. Unlikely in this case the *Employer* would agree as the Price for the generator in the Activity Schedule appears to be below market rate. **[2 marks]**
- d. - Assessment in accordance with 63.1. Again 63.14 unlikely given the Defined Cost + Fee is substantially below the Activity Schedule Price. **[1 mark]**
- The Prices can be reduced (cl. 63.10) and their reduction will be £12,000 in the form of a change to the Activity Schedule (cl. 63.12). **[2 marks]**
- The Activity Schedule would be revised to show a Priced activity of £8,000. The activity description would reference the compensation event. For payment purpose the activity could be included in the assessment that follows the date when the outbuilding would have been built. **[3 marks]**
- e. - The full Schedule of Cost Components is used under option C. The rules for Defined Cost are different and payments to Subcontractors are treated separately. The Defined Cost and Fee might therefore be different. **[2 marks]**
- f. - No it is not. Cl. 60.1(17) makes the correction of an assumption which the *Project Manager* has stated about a compensation event, a compensation **[2 marks]**



event in its own right. This has nothing to do with risk allowances under cl.63.6.

- Cl.65.2 states assessments are not revised due to forecasts upon which they are based are later shown to have been wrong. Implementation in this respect is final. [1] **[1 marks]**

## Question 2

- a. - Cl. 11.2(2) – that everything the Works Information states the *Contractor* has to do by the Completion Date has been done. **[1 marks]**
- That notified Defects which would prevent the *Employer* from using the *works* or Others from doing their work have been corrected. **[1 mark]**
  - If not specified in Works Information, the default position for deciding the point in time when the *Employer* can use the *works* and Others are not prevented from doing their work applies. **[1 mark]**
- b. - Cl. 36.1 acceptance of a quotation for acceleration, but only where the *Contractor* and the *Project Manager* both agree. Acceleration cannot be unilaterally imposed. **[2 marks]**
- Cl. 44.2 acceptance of a quotation in relation to a proposal that the Works Information is changed in order that a Defect does not have to be corrected. **[2 marks]**
- c. - The term ‘planned Completion’ is not itself a defined term, but ‘Completion’ is. The ‘planned’ element is taken in the literal sense. Planned Completion is required on programmes submitted for Acceptance. **[2 marks]**
- Cl. 63.3 describes how the delay to the Completion Date is assessed as the length of time that due to the compensation event, planned Completion will be later than planned Completion as shown on the Accepted Programme. **[2 marks]**
- d. - One mark awarded for the third and each subsequent correctly identified reference in the *conditions of contract*. Examples: **[4 marks]**
- Cl. 21 stating those parts of the *works* to be designed by the *Contractor* and the particulars required; Cl. 22 use of the *Contractor’s* design by the *Employer*; Cl. 25.1 Cooperating and working with Others; Cl. 27.4 Health and safety requirements; Cl. 31.2 any additional information required on the programme; Cl. 40.1 identification of test and inspection requirements additional to those required by the applicable law; Cl. 73.2 *Contractor’s* title to materials.
- e. - Might not be only solution. The *Project Manager* could decide to change the Works Information to reduce the specification or in some other way to accommodate the anticipated performance of the drainage. **[2 marks]**
- Cl. 61.1 requires the *Project Manager* to notify compensation events that arise from, among other things, him giving an instruction. Neither 61.1 or 61.3 preclude the *Contractor* from doing so, but it appears premature in that an instruction has not yet been given. **[2 marks]**
  - An early warning notification would have been much more appropriate. A risk reduction meeting could subsequently be instructed to consider solutions and decide actions. **[2 marks]**
- f. - The *Project Manager* is the only identified role under the contract with authority **[1 mark]**

to change the Works Information. The *Project Manager* is named in Contract Data Part 1.

[2 marks]

- Only this individual or alternatively other people appropriately delegated under Cl. 14.2 can give such an instruction under Cl. 14.3.
- Cl.13.7 requires the Cl. 61.1 compensation event notification to be communicated separately to the Cl. 14.3 instruction and the Cl. 61.1 instruction to submit quotations.

[1 mark]

### Question 3

a. - Option A would afford budget certainty but would not provide for savings should the cost of the work turn out to be less than the Price.

[1 mark]

- Option C would afford some budget certainty but the actual amount paid by the *Employer* could be more if the Price for Work Done to Date exceeded the final Total of the Prices.

[1 mark]

- The 'pain' to the *Employer* under an option C contract could be avoided by entering a *Contractor's share percentage* of 100% for the *share range* of >100% into Contract Data part 1.

[2 marks]

[1 mark]

- Cl.63.11 of main option C provides a mechanism which incentivises the *Contractor* to make value engineering proposals to the *Project Manager* to the financial benefit of both Parties.

b. - Main option A. This gives the highest degree of certainty of expenditure.

Option B would give certainty of the rates, but overall the outturn cost is less certain due to re-measurable quantities.

[2 marks]

[1 mark]

- The *Employer* must understand that no matter which main option is chosen, the final expenditure will always be subject to the effects of compensation events.

c. - Either main option B or D. Both employ a Bill of Quantities. Given the quantities are uncertain due to an unknown level of settlement it makes sense to choose one of these options as the Total of the Prices is subject to re-measure.

[2 marks]

- Option E could be used but it is unlikely. B or D will attract a better Price given the Total of the Prices can change for quantity without a compensation event. This reduces the financial risk for the *Contractor*.

[2 marks]

[1 mark]

- Main option D would be even less risky for the *Contractor* since he is paid forecast Defined Cost + Fee and any mistake he makes in his rates will be mitigated by the *Contractor's share*.

d. - The core clauses are always taken. The *Employer* then specifies one main option and as many or as few the secondary options as he wishes under Contract Data Part 1.

[2 marks]

- Depending on the choice of main option, either the Schedule of Cost Components, the Shorter Schedule of Cost Components or both will apply.

[2 marks]

[1 mark]

[1 mark]

- The choice of W1 or W2 is decided by whether or not the HGCR Act 1996 applies.

- X clauses have international application, Y clauses are jurisdiction specific.

- e. - Option A – team focused on progress of the work, in particular the identification of what activities can be considered complete in accordance with Cl. 11.2(27). The task is therefore ‘relatively simple’ although will require some technical judgement or close communication with the *Supervisor*. [2 marks]
- Option C –focus on what the *Contractor* will have paid for by the next assessment date. This requires ‘commercial accountancy’ skills and greater programme awareness. [1 mark]
- The team will need to be competent in the scrutiny of records of cost and able to apply the rules in the Schedule of Cost Components to decipher which costs are Defined Cost and which by difference are in the Fee. They will also need to be competent in applying commercial / technical judgement in the identification of Disallowed Cost. [2 marks]  
[1 mark]
- Both main options will demand some estimating skills due to the use of Defined Cost in the assessment of compensation events, however under option A this is simplified due to the use of the Shorter Schedule of Cost Components.

#### Question 4

- a. - Cl. 40.1 - the applicable law or the Works Information. [2 marks]
- b. - Yes. The *Supervisor* is not obliged to attend and the test or inspection can be undertaken in his absence. [1 mark]
- The *Contractor* is required to notify the *Supervisor* of his test or inspection in time for a test or inspection to be arranged and done before doing work which would obstruct one. It appears he has done so. [2 marks]  
[1 mark]
- Once he has concluded his inspection he should notify the *Supervisor* of his results.
- c. - The *Contractor* should notify an early warning to the *Project Manager* immediately and instruct a risk reduction meeting, ideally prior to the *Supervisor* going on leave. The potential delay could increase the Prices and delay progress. [2 marks]  
[2 marks]
- If the timings could not be resolved, the *Contractor* could notify a compensation event under Cl. 61.3 citing Cl. 60.1(11).
- The *Project Manager* would reply under 61.4 within a week. It is difficult to see how the *Project Manager* could do anything other than validate the notification by instructing quotations. **OR** The *Contractor* would lose entitlement to changed Prices / Completion Dates if he does not notify the event as a compensation event within eight weeks of becoming aware of the event. [2 marks]
- d. - The *Contractor* should notify an early warning to the *Project Manager* immediately. Not doing so could impact on the assessment of a related compensation event should one arise. [1 mark]
- Representatives of the university or other universities could be invited to attend a risk reduction meeting. Those attending could consider proposals and solutions for mitigating the risk. [1 mark]  
[2 marks]
- If unresolved, the *Contractor* could notify a compensation event under Cl. 61.3 citing 60.1(16). He would need to do this within 8 weeks of becoming aware of the event. [1 mark]

- The compensation event will likely be assessed by considering the additional Defined Cost + Fee involved in the *Contractor's* use of alternative facilities.
- e. - The *Supervisor* should inform the *Project Manager* immediately. The *Project Manager* should then notify an early warning to the *Contractor*. **[6 marks]**
- Until the *defect date* the *Supervisor* may instruct the *Contractor* to search for a Defect. He would need to give his reasons which the question appears to make clear.
  - The *Contractor* has to obey this instruction to search – Cl. 27.3.
  - If no Defect is found the *Contractor* could notify a compensation event under Cl. 61.3 citing 60.1(10).
- f. - A compensation event would not arise, even in the event no Defect was found. **[2 marks]**
- Cl. 60.1(10) states 'giving insufficient notice of doing work obstructing a required test or inspection' as an exception to the circumstances giving rise to a compensation event of this type.

## Section 2

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### Question 5

- a. - The external consultant does not have the right to unilaterally replace the *Project Manager* here. **[4 marks]**
- It is only the *Employer* that may replace either the *Project Manager* or the *Supervisor*. This is stated in clause 14.4. First of all though, the *Employer* must notify the *Contractor* of the name of the replacement.
  - Before this happens, the *Employer* needs to be sure that the proposed replacement is both suitable and competent to undertake the role of the *Project Manager*. This could be a combination of seeing his CV, meeting/interviewing him.
- b. - We do not know in what capacity of the *Contractor* the foreman is able to act, can he receive valid instructions from the *Project Manager* and/or *Supervisor*? **[8 marks]**
- Whatever that capacity, the *Supervisor* does not have the power to instruct the *Contractor* to stop/start/re-start any work. This right is given only to the *Project Manager*, as stated in clause 34.1.
  - The *Supervisor* therefore does not have the power under the contract to instruct the *Contractor* to stop any work, unless this has been delegated to him by the *Project Manager*.
  - The foreman should of course be aware of the requirements of the Works Information. It may be that the *Supervisor* was actually entitled to inspect the sub-surface because this was a requirement of the Works Information.
  - The foreman should discuss the issue with the *Supervisor* and, if the inspection was not part of the Works Information, then suggest this matter is immediately dealt with by the *Project Manager* and a representative of the *Contractor*. This may be best dealt with as an early warning/risk reduction meeting under clause 16.

- c.** - The inspection was clearly considered important enough to put a holding point in the Works Information and the *Contractor* is in breach by not Providing the Works in accordance with the Works Information, clause 20.1.
- The *Supervisor* has the right to instruct the *Contractor* to search for a Defect. If the *Supervisor* considers it necessary to uncover the particular works, he should instruct the search and give reasons for the search, in accordance with clause 42.1.
- Normally, where no Defect is found as a result of the search, then a compensation event arises under clause 60.1(10).
- There is an exception in clause 60.1(10) which covers the situation where the search is needed only because the *Contractor* gave insufficient notice of doing work obstructing a required test or inspection.
- It is most likely here therefore that if the search did not expose a Defect, the *Employer* would not pay the *Contractor* any additional monies for the uncovering/re-covering of the work. If there was a Defect then the *Contractor* would correct this at his cost.
- [6 marks]**

- d.** - Clause 50.1 requires the *Project Manager* to assess the amount due at each assessment date. In doing this, he should consider any application for payment the *Contractor* has submitted on or before the assessment date. This is stated in clause 50.4. This clause goes on to require the *Project Manager* to give the *Contractor* details of how the amount due has been assessed.
- There are a few matters to sort out here with the *Contractor*. First of all, he will need to establish who gave the verbal instructions, when and for what. Such instructions are not permissible under the contract, ECC clause 13.1 requiring communications which the contract requires to be communicated in a form which can be read, copied and recorded. If there was to be a valid instruction to change the Works Information, this must be carried out by the *Project Manager*. If this occurred, then a compensation event would arise under clause 60.1(1).
- In terms of payment, clause 50.2 states that the 'amount due is...the Price for Work Done to Date...' and in turn this is defined in clause 11.2(27) as the total of the Prices for '...each completed activity which is not in a group...'. The 'additional works' therefore will need to get onto the Activity Schedule in order to be paid when they are completed. This would most likely happen in this case if there was an implemented compensation event under clause 65.1.
- [7 marks]**

### Question 6

- a.** - The *Project Manager* should notify an early warning (clause 16.1) to the *Contractor* and call a risk reduction meeting immediately (clause 16.2).
- If the *Contractor* agrees, the *Project Manager* may instruct the *Employer* to attend the meeting (clause 16.2). It would seem entirely sensible here to involve the *Employer* fully in discussing this matter, rather than to have a series of separate meetings.
- At the risk reduction meeting, those attending set about making and
- [6 marks]**

considering proposals for how the effect of the registered risks can be avoided or reduced, seeking solutions that will bring advantage to all those who will be affected (clause 16.3).

- At the end of the meeting the *Project Manager* revises the Risk Register to record the decisions made at each risk reduction meeting and issues the revised Risk Register to the *Contractor* (clause 16.4).

**b.** - On minimal facts here, it is quite difficult to be definitive with the most likely solution but the sorts of topics that the parties at the risk reduction meeting might consider include: **[4 marks]**

- o Termination of the *Contractor's* obligation to Provide the Works.
- o An instruction by the *Project Manager* to the *Contractor* to stop all or part of all of the *works* pending the *Employer* deciding what is best to do.
- o Perhaps making safe then mothballing the Site, and try to sell on to another developer as is.
- o Keep going, trusting that the *Employer* can source another buyer in time, perhaps changing the *works* to make it more generic for possible other buyers.

**c.** - Clause 90.2 states that the *Employer* may terminate for any reason, convenience within this. **[2 marks]**

**d.** - Clause 90.1 states that if the *Employer* wishes to terminate the *Contractor's* obligation to Provide the Works, he notifies the *Project Manager* and the *Contractor* giving details of his reason for terminating. **[3 marks]**  
- Clause 90.1 then states that the *Project Manager* issues the termination certificate to both Parties promptly if the reason complies with the contract, which it does.

**e.** - has the right to later instruct the *Contractor* to re-start the same (again clause 34.1). **[7 marks]**  
- The instruction to stop is a compensation event under clause 60.1(4). As this compensation event arises from the *Project Manager* giving an instruction, the *Project Manager* should notify the *Contractor* of the compensation event at the time of that communication (the clause 34.1 instruction). Clause 61.1 requires this. The *Project Manager* should also instruct the *Contractor* to submit quotations for this and the *Contractor* must of course put the instruction into effect (clause 61.1).  
- The *Contractor* submits a quotation under 62.3 within 3 weeks of being instructed to and the *Project Manager* replies within 2 weeks of the submission. These periods are the maximum to be taken and in this case it looks as if the *Project Manager* and *Contractor* ideally work together to very quickly come up with a quotation for this instruction. The *Contractor* will of course ask 'how long is the instruction to stop going to last?' and therefore it may be prudent to give some *Project Manager* timescale assumptions under clause 61.6, giving a clear basis for the quotation to be provided.  
- The cessation of the instruction to stop cannot go on indefinitely. Clause 91.6 deals with this scenario, providing that if the *Project Manager* has

instructed the *Contractor* to stop any substantial work (or all work as in this case) and an instruction allowing the work to re-start has not been given within 13 weeks then:

- The *Contractor* or *Employer* may terminate if the instruction was due to a default by the other, which does not seem to be the case here (R18 and R19)
- Either Party may terminate if the instruction was due to any other reason, which does seem to be the case here (R20).

- f. - It does not seem to be an option for the *Project Manager* just to instruct changes to the Works Information for what the potential new buyer. There would be far too much risk here. Instead, the *Project Manager* should be clear of the scope of the changes working by quickly and closely with the *Employer* and the potential new buyer. **[3 marks]**
- When this has been completed, the *Project Manager* should instruct the *Contractor* to submit quotations for a proposed instruction under clause 61.2. The *Contractor* does not put the proposed instruction into effect, again clause 61.2.
- If this quotation could be worked on quite quickly, along with the quotation for the stopping/re-starting of the *works*, then this should give the *Employer* and potential new buyer the appropriate time and cost information that they will need to hopefully conclude any deal and get the *works* completed.

#### Question 7

- a. - Clause 11.2(28) states that the Price for Work Done to Date is the total of **[9 marks]**
- the quantity of the work which the *Contractor* has completed for each item in the Bill of Quantities multiplied by the rate and
  - a proportion of each lump sum which is the proportion of the work covered by the item which the *Contractor* has completed.
- Clause 55.1 states that information on the Bill of Quantities is not Works Information or Site Information.
- Clause 11.2(21) states that the Bill of Quantities is the *bill of quantities* as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.
- Clause 60.6 provides a further compensation event which covers where the *Project Manager* corrects mistakes in the Bill of Quantities which are departures from the rules for item descriptions and for division of the work into items in the *method of measurement*. If it is determined that this omission is indeed a mistake (according to the *method of measurement*), then this will be corrected by adding an item(s) into the Bill of Quantities via the compensation event process. Once the compensation event is implemented, it is added to the Bill of Quantities and the *Contractor* can be paid accordingly.
- Clause 32.2 deals with when revised programmes are to be submitted by the *Contractor* to the *Project Manager* for acceptance.
- This is
- within the *period for reply* after the *Project Manager* has instructed him to,

- when the *Contractor* chooses to and, in any case,
    - at no longer interval than the interval stated in the Contract Data from the *starting date* until Completion of the whole of the *works*.
  - So the error (the missing item) can be picked up and shown on a revised programme and submitted immediately by the *Contractor* if he so chooses or he waits to be instructed by the *Project Manager* to do so or submits it within the normal interval, whichever is the earliest.
  - If the *Contractor* considers this to be one of the four matters stated in clause 16.1 then he must notify and early warning under clause 16.1. If it is a matter which increases the *Contractor's* additional cost, then he may notify an early warning under clause 16.1 if he so chooses.
- b.** - The *Employer* should not direct the *Project Manager* in this regard, it is a matter for the *Project Manager* to determine without undue influence. **[4 marks]**
- Clause 50.3 deals with deductions made in relation to lack of submission of the programme by the *Contractor*. This clause though, only relates to the first programme submitted for acceptance, and all that the programme needs to show is the information which the contract requires.
  - In this instance, we are beyond the stage of the first programme submitted for acceptance and therefore the one quarter deduction of the Price for Work Done to Date cannot be retained as provided for in clause 50.3.
- c.** - This part of the *works* is stated in the Works Information as being *Contractor*-designed so the *Contractor* follows the design acceptance procedures laid down in clause 21. **[7 marks]**
- Clause 21.2 states that the *Contractor* submits the particulars of his design as the Works Information requires to the *Project Manager* for acceptance. If the Works Information does not require such submission, then the *Contractor* is not obliged to submit any such design for acceptance and this is correctly not shown on the programme. If this is a problem to the *Project Manager*, then an instruction could be issued to the *Contractor* to submit such design for acceptance but this would be a compensation event which may have time and/or cost implications. This would need to be carefully considered. Whether this is required or not, the *Contractor* is still obliged to Provide the Works in accordance with the Works Information (clause 20.1).
  - If the Works Information does require such submission, then the *Contractor* is obliged to submit such design for acceptance and this should be shown on the programme. Even though the *Project Manager* has previously therefore accepted what appears to be an incorrect programme, clause 14.1 provides that even with such acceptance of this communication (the submission of a programme) it does not change the *Contractor's* responsibility to Provide the Works (clause 14.1).
- d.** - Clause 32.2 allows the *Contractor* to submit a revised programme to the *Project Manager* for acceptance when the *Contractor* chooses. Clause 32.1 requires that the *Contractor* shows on each revised programme a number of things including how the *Contractor* plans to deal with any delays and any other changes which the *Contractor* proposes to make to the Accepted **[5 marks]**



Programme. The *Contractor* may show a combination of additional resources, re-sequencing, longer hours working, changing methods of working and so on.

- Option X7 delay damages is incorporated into the contract. Even with the changes the *Contractor* proposes to make, and whether or not the programme is accepted by the *Project Manager*, if the *Contractor* achieves Completion later than the Completion Date then the *Contractor* pays delay damages at the rate stated in the Contract Data. This is payable from the Completion Date for each day until the earlier of Completion and the date on which the *Employer* takes over the works.

### Question 8

- a.
- There are two issues to be dealt with here, the instruction to stop and the instruction to change part of the Works Information.
  - On the first issue, the *Project Manager* has the power to instruct the *Contractor* to stop or not to start any work, and may later instruct him that he may re-start or start it (clause 34.1).
  - As soon as the *Contractor* received the instruction to stop work he should have notified an early warning under clause 16.1 as this may increase the total of the Prices or delay Completion. The *Project Manager* could equally have notified an early warning. A risk reduction meeting should have been arranged and at the meeting those who attended should have made and considered proposals for how the effect of the matter could have been avoided or reduced, sought solutions bringing advantages to all those affected and decided upon actions to be taken and who will take them.
  - The instructions to stop and re-start these works are a compensation event under clause 60.1(4). As this compensation event arose from the *Project Manager* giving an instruction, then the *Project Manager* should notify the *Contractor* at the time of the communication (the instruction to change the Works Information) that this is a compensation event and also instruct the *Contractor* to submit a quotation for this. In the absence of a notification of a compensation event from the *Project Manager* under clause 61.1, the *Contractor* should have notified the instruction as a compensation event under clause 61.3.
  - Under clause 61.5 if the *Project Manager* decides that the *Contractor* did not give an early warning of an event which an experienced contractor could have given, he should notify this decision to the *Contractor* when he instructs him to submit quotations. This has to be considered with clause 16.1 that states early warning of a matter for which a compensation event has previously been notified is not required. It appears on these facts that the sensible course of action is generally to notify an early warning to ensure the *Contractor* does not fall foul of clause 61.5 and 63.5.
  - On the second issue, this instruction is a compensation event under clause 60.1(1) and again, as this compensation event arose from the *Project Manager* giving an instruction, then the *Project Manager* should notify the *Contractor* at the time of the communication (the instruction to change the Works Information) and that this is a compensation event and also instruct the *Contractor* to submit a quotation for this. In the absence of a notification

[10 marks]

of a compensation event from the *Project Manager* under clause 61.1, the *Contractor* should have notified the instruction as a compensation event under clause 61.3.

- The *Contractor* puts both instructions into effect in accordance with clause 61.1, these are not proposed instructions and he cannot delay until the quotations for the compensation events are implemented.
- b.**
- Under clause 61.5 if the *Project Manager* decides that the *Contractor* did not give an early warning of the event which an experienced contractor could have given, the *Project Manager* notifies this to the *Contractor* when he instructs him to submit quotations. This sanction clause deals with those events that turn out to be compensation events and the *Project Manager* (on behalf of the *Employer*) was effectively denied the opportunity to do something about the risk. **[5 marks]**
  - Clause 63.5 goes on to say that if there is no such early warning from the *Contractor*, the compensation event is assessed as if the *Contractor* had given early warning.
  - These clauses are part of the core clauses and address the *Contractor's* failure to notify early warning in respect of compensation events.
- c.**
- As *Project Manager* you would want to know the reasons for the delay in order to properly consider the request. Under clause 62.5, the *Project Manager* can extend the time allowed for the *Contractor* to submit quotations for a compensation event if the *Contractor* and the *Contractor* agree to the extension before the submission is due. **[2 marks]**
- d.**
- Under clause 62.3 the *Project Manager* should reply within two weeks of the submission. His reply should be either an instruction to submit a revised quotation, an acceptance of the quotation, or a notification that he will be making his own assessment **[5 marks]**
  - If the *Project Manager* fails to do any of the above before the reply is due then a compensation event arises under clause 60.1(6), the *Project Manager* does not reply to a communication from the *Contractor* within the period required by this contract.
  - If this delay has a time or cost effect then this can be assessed under this compensation event. Generally, the *Contractor* wishes for an answer on the original quotation and wants a decision on this soonest.
  - The *Contractor* is incorrect that silence in this instance deems the quotation accepted.
  - What the *Contractor* may consider is notifying the *Project Manager* under clause 62.6 that the *Project Manager* has not replied to the quotation within the time allowed. Subsequently, if the *Project Manager* does not reply to this notification within two weeks the *Contractor's* notification is treated as acceptance of the quotation by the *Project Manager*.
  - Under clause 62.5, the *Project Manager* could have extended the time he has to reply to a quotation for a compensation event if the *Project Manager* and the *Contractor* agree to the extension before the reply is due.

- e. - The *Project Manager* should politely advise the *Employer* that he cannot interfere with the *Project Manager's* duties under the contract, particularly in respect of those matters that involve certification. Reference should be made to the role of the independent certifier and whether or not this is the basis that the *Project Manager* is obliged to act in accordance with. Case law such as *Sutcliffe v Thackrah* (1974) and *Costain Ltd v Bechtel Ltd* (2005) should be cited in the response. **[3 marks]**

**Institution of Civil Engineers**  
**Examination in Civil Engineering Law and Contract Management 2014**  
**Module 3 (English and Scots Law)**

Monday 16<sup>th</sup> June 2014  
Time permitted: 14:00 to 17.20 (3 hours 20 minutes)

There are four questions in Section 1 based on NEC3 Contracts and four questions in Section 2 based on ICC Conditions of Contract.

Answer **Question 1** and one other from section 1 in the answer book provided (Blue book) *and* answer **Question 5** and one other from Section 2 in a **separate** answer book provided (Blue book).

All questions carry equal marks.

**You may consult un-marked copies of the ICC Conditions of Contract Measurement version August 2011, ICC Conditions of Contract for Design and Construct version August 2011 and ICC Conditions of Contract Target Cost Version August 2011. The CECA/FCEC form of Sub-Contract, NEC3 Engineering and Construction Contract (ECC), NEC3 Engineering and Construction Subcontract (ECS), NEC3 Engineering and Construction Short Subcontract (ECSS), Statutes, CDM Regulations, CESMM4.**

**The candidate should answer all questions assuming that the contracts were entered into before 1<sup>st</sup> September 2011. All questions involving NEC3 Contracts must be answered using the NEC3 Engineering and Construction Contract.**

**References to Cases and Acts should be quoted where possible.**

Please indicate on the outside of the answer booklets whether your answers will be in respect of Scots Law

## Section 1

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### Question 1 Compulsory

Harsh Construction Limited (HCL) has a standard form NEC3 Option A Contract to carry out certain works at Ballygobackwards. The Works include a piling operation which HCL has subcontracted to Boring Limited (BL) under an NEC Short Subcontract. The Subcontract Price List includes two items:

1. Item 1 – set up pile rates £500.00 per pile;
2. Item 2 – drive piles rates £100.00 per metre.

The Option A Main Contract Activity Schedule includes the item “*complete piling – 100 piles £275,000.00*”.

The Site Information includes the following statement:

*“The ground conditions indicate that the piles will have to be driven between 10 and 30 metres to reach the bearing stratum. However, sonic testing indicates a depth of 50m may be necessary in isolated areas.”*

In preparing the Activity Schedule HCL assumed an average depth of 20m for the piles. During construction BL found that they had to drive the piles to between 25 and 30 metres depth to reach the bearing stratum. The average depth is 28m for 90 of the piles and 10 piles have to be driven to 48 metres. BL’s Site Engineer mentions this to HCL’s agent and when the works were finished BL submits an application for payment for £350,000.00.

HCL refuse to agree this and pay BL the £250,000.00 due on the original Price List.

- |    |                   |                   |
|----|-------------------|-------------------|
| a) | <b>Advise BL</b>  | <b>(10 marks)</b> |
| b) | <b>Advise HCL</b> | <b>(15 marks)</b> |

## Section 1

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### Question 2

The *Contractor* is contracted to the *Employer* to provide enabling Works to a brown field site industrial and leisure development under an NEC Option A contract. The period for reply is 3 weeks. The Works Information includes a schematic design for a large culvert feature which it states “is to be designed to all relevant European standards and to the client’s satisfaction”. The *Contractor* provides a programme for acceptance which indicates that it will provide the design for acceptance on 1 March 14 and that it will require the design to be accepted 6 weeks later if the critical path for completion is not to suffer. The *Project Manager* neither accepts the programme nor provides any notification of rejection. He does mention in a project meeting that he felt the programme did not contain sufficient detail and was not specific.

The *Contractor* provides the design to the *Project Manager* on 2 March 14. 4 weeks later, the *Project Manager* meets the *Contractor* and explains that the *Employer* does not like the “dead dull concrete pipe solution. It’s a leisure park not a sewage works after all”. The *Contractor* asks the *Project Manager* to put the rejection and reasons in writing. In a volte face, the *Project Manager* writes 6 weeks after this notifying the *Contractor* that the design is accepted in principle but that the jointing detail is not clear and the design cannot be accepted until the *Contractor* provides it. The *Contractor* does this within 1 week. The *Project Manager* accepts the design 3.5 weeks later.

The *Project Manager* calls the *Contractor* to a risk reduction meeting and explains that the *Employer* might be keen on having the fencing on the site replaced by a “feature” brickwork wall. The *Contractor* has no arrangements with a bricklayer, but has a labour only Subcontractor lined up do the fencing, the materials for which have already been purchased. The Subcontractor has not been accepted by the *Project Manager* but the correspondence between the Subcontractor and the *Contractor* indicate that the NEC3 Short Form of Subcontract will be used.

Advise the *Contractor* on what action he should take, explaining why it is appropriate and when he should act with respect to:

- a) **The programme he has proposed for acceptance.** [5 marks]
- b) **The acceptance of the design for the culvert.** [10 marks]
- c) **The brickwork wall.** [10 marks]

## Section 1

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### Question 3

A landscaping *Contractor*, “Greenway Contracts”(Greenway), is employed to carryout landscaping works to upgrade a park in the centre of Busy Town.

The Contract was let under NEC3 Option B. The Bill of Quantities stated the total area of the landscaping was 57m<sup>2</sup>. The Works Information obliges Greenway to complete all of the landscaping shown on a simple schematic layout. When Greenway arrived on site and surveyed the site they found that the total landscaping area was actually 68m<sup>2</sup>. Greenway has included 68m<sup>2</sup> in his application for payment but the *Project Manager* has only certified the 57m<sup>2</sup> in the original Bill. His reason is “*you have not given an early warning of this nor have you issued a compensation event*”.

- a) **Advise the *Contractor* on the *Project Manager*'s actions and identify the most appropriate course of action to take. [10 marks]**

The Works Information also requires Greenway to supply and place 20 park benches, 10 of which are to be wooden and 10 to be of precast concrete. Greenway's rate in the Bill of Quantities for the wooden benches is competitive and more or less the same as for the concrete benches, Concrete benches are usually much cheaper than wooden benches. However, Greenway managed to secure a very good price for the wooden benches from a supplier, since they bought them up front and paid cash. The Accepted Programme indicates that the benches will not be placed for some months.

The *Employer* now wishes to replace the 10 wooden benches with 10 precast benches. Greenway is horrified since he has already purchased the wooden benches. In a Risk Reduction Meeting before the change was instructed, the *Project Manager* made it plain that purchasing the benches up front was the *Contractor*'s problem and the alleged cheap price was not credible. Among other things it would be completely at odds with Greenway's tendered percentage fee, which (says the PM) is the right level of profit.

- b) **Advise the *Contractor* on the most appropriate course of action to protect its position. [15 marks]**

## Section 1

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### Question 4

The works comprise refurbishment to a shopping centre under an ECC Option C Contract. The *Contractor*, “Crazy Price Contractors”, is to design the hidden details for the works, including the structural steelwork and the building services. The Works Information states that he is to provide a “detailed outline” of his design for the *Project Manager*. The period for reply is 2 weeks.

Crazy Price Contractors submits a schematic of its design for the electrical works to the *Project Manager* for acceptance in accordance with their Accepted Programme. Some 3 weeks later they still have had no reply from the *Project Manager* regarding their design. Crazy Price Contractors then inform the *Project Manager* that due to not receiving a response they cannot continue with the works and issue a compensation event notification.

Following the *Contractor’s* threat to stop the works the *Project Manager* tells them in a site meeting “not to be so ridiculous” and that he “obviously” needs more information including a full specification before he can accept their design. It takes Crazy Price Contractors another 3 weeks to submit the revised design to the *Project Manager*. After this submission the *Project Manager* finally accepts Crazy Price Contractors design and they begin work but now 3 weeks in delay.

- a) **Advise Crazy Price Contractors what is their entitlement is as a result of the *Project Manager’s* late response to design submission and how they could obtain that entitlement, if any?** [11 marks]

Part of the electrical design was to design a small electrical substation that was to be installed by an electrical utility company, “Spark Utilities”. Crazy Price Contractors’ design Co-ordinator phones Spark Utilities and manages to speak to the foreman who is likely to carry out the work on site; he happens to be the Design Co-ordinator’s uncle. They discuss that in order to meet the Completion Date the substation must be installed before week 16 of the works. The foreman replies with a “*yeah that is fine. Don’t worry we’ll get it sorted well before then*”. Crazy Price Contractors make the necessary application to Spark Utilities but hear nothing back. They make provision in their programme for commencement of the Utility installation in week 16 and submit a revised programme to the *Project Manager* for acceptance. The *Project Manager* remains silent on the revised programme. It is now week 17 of the works and there is no sign of Spark Utilities.

- b) **What options are available to the *Contractor*?** [11 marks]
- c) **Would it make a difference if the revised programme was accepted by the *Project Manager*?** [3 marks]



## Section 2

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### Question 5 Compulsory

Big Contractors (“Big”) have an ICC Measurement Contract to build a reinforced concrete basement at a new biomass incinerator. Big lets a back to back sub-contract to Formfix for fixing reinforcement.

Formfix are soon well behind programme and they complain that the steel is difficult to fix in the basement corners in the way it is designed and scheduled. Big does not accept that there is an issue, responds by saying that this is Formfix’s problem and issues an instruction to Formfix to bend the reinforcement to fit, at Formfix’s own cost. Formfix confirms receipt of the instruction and notifies Big that the Works are impossible to construct as designed referring to Clause 13 of the main contract. Big ignores it and goes on to place concrete around the fixed reinforcement in the basement 5 weeks late.

The Engineer’s Representative (ER) calls into the site one Saturday morning and finds a large amount of reinforcement is being sold as scrap by the site foreman. The bars match some of those that should have been included in the basement. The ER carries out an investigation and arranges for a non-destructive survey of the reinforcement in the basement. It reveals that some of the reinforcement bars in the basement have less than the specified cover and every fourth bar is missing in the corners.

The Engineer is advised and after discussion the designer (part of the same company) immediately instructs Big to demolish and reconstruct the basement.

Big acknowledged the instruction but does not start demolition straight away. Instead the Contractor employs an independent consulting engineer to review the contract drawings and survey results. The consulting engineer confirms that the reinforcement is indeed physically impossible to fix as scheduled. After prolonged discussions over several weeks, the Engineer eventually concedes that it is impossible to fix the reinforcement which his company designed. However, he says that Big are still liable as the bars could have been changed if Big had told the Engineer about the problem.

The Employer is faced with a large claim from Big and wants to know if the basement as constructed is fit for purpose, requires remedial work or needs to be demolished as instructed.

Discuss the liabilities between the following parties:

- |    |                                  |                  |
|----|----------------------------------|------------------|
| a) | <b>Big and Formfix</b>           | <b>[9 marks]</b> |
| b) | <b>Big and the Employer</b>      | <b>[8 marks]</b> |
| c) | <b>The Engineer and Employer</b> | <b>[8 marks]</b> |

## Section 2

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### Question 6

A term repair and maintenance contract (ICC Term Version) for a utility company is in its Defects Correction Period when a number a number of problems come to light such as work not to specification, sunken areas of reinstatement and incomplete work, for example missing marker posts. The Engineer carries out a full inspection of the Works and produces a report identifying over 300 defects, most of them small in nature but in the public highway (verge, footpath and carriageway). The report is sent to the Contractor with a request to complete the work as soon as possible but the Contractor refuses to do so.

- a) **Describe the actions the Engineer and Employer should take to enable the Employer to appoint another contractor to carry out the work and protect the Employer's rights under his contract with the original Contractor [15 marks]**

The Employer appoints another contractor to rectify the defects, with payment on a cost reimbursable basis. The original Contractor was advised of this and that the estimated costs were £120,000 but in the end they amounted to £255,000. The Employer seeks to recover the £255,000 from the original Contractor, who refuses to pay, arguing that the work would have only cost him £150,000 to do. From observations and records he provides examples of inefficient working in carrying out the remedial work but he does offer to pay the original estimate of £120,000, in full and final settlement.

- b) **Advise the Employer on his options for recovering the repair costs and the risks associated with each option [10 marks]**

## Section 2

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### Question 7

Star Contractors ("Star") have tendered for the construction of an activated sludge tank measuring 40 metres long by 20 metres wide. The Contract is the ICC Measurement Version and the Bill of Quantities is based on CESMM4. The depth of the excavation required for the construction of the tank is in the range 2-3 metres. Site investigation information shows the water table at 1 metre from the surface. As the tank is located close to the river and sub-soils include sands and gravels Star decides to include in his tender for well point dewatering for the excavation and for the construction of the tank. For this operation he includes Method Related charges in the Bill of Quantities as follows:

	Quantity	Unit	Rate	Amount
Establish well point dewatering (Fixed charge)		Sum		£15,000.00
Maintain well point dewatering (Time related charge)	35	Weeks	£2,000.00	£55,000.00

Star estimated that the billed excavation quantities were under-measured and should increase on re-measurement. Star saw this as an opportunity and inserted a high rate for this item in the tender.

The Contractor's tender is accepted and the Contractor commences work.

On arrival on site Star excavates trial pits to investigate the ground conditions and finds that there are less sands and gravels than expected in the vicinity of the tank and the water table is lower at 3 to 4 metres below the surface. This means that well point dewatering may not be required. The Agent decides to create sumps at 10 metre intervals and use conventional sump pumping to dewater the tank excavation. As time progresses the weather remains dry and the water table remains low. The decision to use sump pumping has paid off and Star's actual cost for dewatering is a lot less than expected and provided for in the Method Related Charges.

Star make good progress with the tank construction and complete it in 30 weeks. However, just before completion of the tank the Engineer instructs Star to construct a 6 metre deep, 10 metre diameter settlement tank on the same site but closer to the river. Star excavate trial pits in the location of the settlement tank and find sands and gravels with a high ground water level. Well point dewatering was put in place to enable excavation for the new tank.

When the excavation quantities are re-measured for the activated sludge tank they are found to be less than the original figure in the bill of quantities. Star state that the rate inserted in the tender for excavation is not adequate and suggests that the rate should increase by 20%. However, when the quantities are measured for the second tank it increases the total excavation on the project by 30%. Star informs the Engineer that they require a new excavation rate for the second tank of twice the original bill rate to take account of the additional depth and difficulty of access.

As Engineer, prepare a report for the Employer to explain:

- a) **How payment would be made against the Method Related Charges, [15 marks] both interim and final payment, for the original work and the second tank.**
- b) **How you propose to assess the Contractor's request for increased [10 marks] excavation rates?**

## Section 2

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### Question 8

Northern Water invited tenders for two ICC Design and Construct contracts for a new screw pumping station and a new sewer including a river crossing. Space on the finished screw pumping station site was limited as it was only 300m wide x 200m long, so an additional working area at the eastern end of the site was to be made available to the Contractor (Area A) to extend the site by 100m to a total area of 300m wide by 300m long. The contract for the new sewer was awarded first and Area A was occupied by Tunnelbore Sewerage Contractor (as it was also included in their contract). The pumping station contract was awarded to Wecandoit Contractors for £2.2million and the commencement date was specified in the Appendix to the Form of Tender.

Wecandoit had planned to site a tower crane on Area A and also to store excavated material to be used for backfilling working space. This was no longer possible. As a result Wecandoit had to reconsider their method of working and they did not start on site as planned but did put in place their site offices and welfare facilities allowing their site staff to move in.

Northern Water had already recognised the problem and negotiated an extension to the site with the local farmer. This was a 200m long by 100m wide strip of land on the southern boundary of the site and was available (Area B) 4 weeks after the commencement date.

Wecandoit revised their method of working to use a mobile crane (which sometimes had to move between operations) and completed the 40 week contract some 10 weeks late at an additional cost of £350,000 made up as follows:

Prolongation of Preliminaries	10 weeks @ £15,000 =	£150,000
Additional Craneage costs		£150,000
Imported backfill material due to excavated material degrading over time	1000m <sup>3</sup> @ £50 =	£ 50,000

**Draft an outline claim for Wecandoit, based on the 3 issues, for [25 marks] discussion with the Engineer's Representative**

**Law and Contract Management points for answer  
Module 3**

**Section 1**

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**Question 1 Compulsory**

This question concerns the inter-relationship between the payment and change management provisions of the Short Subcontract and those of the Option A Main Contract. The answer should include a discussion that the Price List allows a Subcontractor to adjust PWDD without necessarily issuing an early warning or CE. Clause 16 of the Short Subcontract should be compared with Clause 16 of the Main Contract.

The compensation event system should also be considered. The detailed points will include:

- a.** BL's advice should include a discussion on the request by BL to notify an early warning to HCL under Clause 16.1 (because of an increase in prices). This is a notification which must be in writing (Clause 13.1). Whether an email will satisfy this is something candidates should discuss. Candidates are to be aware of the Short Subcontract, so candidates should realise:  
The Short Subcontract PWDD does not require BL to submit a compensation event notification since the price list is re-measurable; and  
The request to notify does not need a separate communication.  
Candidates should discuss:  
Failure to issue an early warning to HCL may be a breach of contract for which HCL may be able to withhold damages but a proper notice must be issued (Clause 50.3 third bullet combined with Clause 50.4).  
But HCL must prove their loss and it will not merely be the sum claimed.  
The question gives scope to an able candidate to discuss set off and payment obligations generally. The answer must advise BL what to do and what to expect.
- [10 marks]**

- b.** HCL's predicament is two-fold; firstly problems with its Subcontractor but also with their Employer.  
With respect to BL, the answer should discuss the obligation to pay the correct sum. Candidate should explain the Short Subcontract payment provisions compared to the provisions in the ECC. Some may touch on the implications (or otherwise) of the 10.1 obligation to work in a spirit of mutual trust. Some may explore the difference between contractually compliant notices and actual knowledge and its possible impact through equity. The advice should include a clear statement, with logical reasons, whether HCL have paid the correct sum or otherwise. The most likely answer is the HCL have not but a well argued counter position should achieve equal marks.  
With respect to the Employer, the candidate has considerable scope to explore Clause 60.1(12) compensation events, notification dates, and assessments. Candidate will identify difficulties and record keeping of Defined Cost (since the Subcontractor is not paid in that way) and in deciding what is the extent of the event itself. Candidates may include a view of what the compensation event may be worth and marks will be awarded based on how logical and contractually compliant their reasons are.  
The answer should include advice to HCL
- [15 marks]**

## Question 2

- a. - Discuss the Project Manager's obligations to accept the programme and the effect of non-acceptance including on the compensation event system **[5 marks]**
- Advise the Contractor to :
- notify *the Project Manger* that this is a compensation event per clause 60.1(9) and identify his losses
  - Ask the Project Manager to call a risk reduction meeting.
  - Discuss the difficulty in assessing the cost which results from failure by the Project Manager to accept the programme and that such failure has no default "deemed acceptance" provision
- b. - Identify that the Contractor cannot progress with the design until it is accepted **[10 marks]**
- Discuss the approach to be taken on the ambiguity and the action of clause 17.1 on unclear requirements in the Works Information
- Advise the Contractor to:
- o Call a risk reduction meeting
  - o Notify a compensation event on the failure to accept the design or respond in the period for reply
  - o Assess the delay and costs based on the Project Manager's failure to accept the design in accordance with the contract – so effect from date submitted, plus the period for reply plus the one week to provide the clarification on the further period to accept.
- Advise on the deemed rejection risk and the time scale to notify per clause 61.3 and the potential problem for the Contractor in not having notified the Project Manager within 8 weeks of the initial failure to correctly reject or accept the design.
- c. - Identify that the Contractor has not been instructed to provide a quotation nor that a compensation event has been notified by the Project Manager. Discuss the implications of not having the Fencing Subcontractor accepted by the Project Manager (These could include the risk of termination under R13 in clause 91.2, although the work is hardly likely to be regarded as "substantial", and the express breach of clause 26.2 and 26.3 by the contractor by having progressed with appointment without acceptance) and conclude it is immaterial since the reasons for non-acceptance are limited. **[10 marks]**
- Discuss the costs in having procured the material. Discuss that this should have been in the latest programme for acceptance.
- Advise the Contractor to:
- o Write to the Project Manager asking for instructions on quotations
  - o Come to the risk reduction meeting prepared to discuss the cost and time implications of procuring a subcontractor and the costs of the Fencing Subcontractor will be part of any compensation event
- Include the need to understand the time implications in terms of the operations on site

- The fullest answers might even notice that the *Project Manger* may need to be encouraged to provide clear details of what is necessary which may be in breach of clause 10.1

### Question 3

This is a straight forward question about valuing work under option B both by simple remeasurement and as a compensation event. It includes some topical red herrings.

- a. This is essentially a payment issue not a compensation event one. The answer should refer to the Price for Work Done to date under option B and the Clause 50.3 calculation of the Amount Due. It could be notified as a compensation event if the contractor felt it appropriate either because of the sum affected or because the effect was not purely on the quantity of work. However, the candidate should identify that this is for the contractor and failing to do so does not change the definition of PWDD and amount due. **[10 marks]**

Candidates could point out other elements such as:

- Not using the CE system will amount to a waiver of a claim to change the completion date
- The PM could notify a compensation event anyway and this might be appropriate if there was likely to be a re-rate issue to protect the employer
- The contractor is in breach of clause 16 by not issuing an early warning but the Employer would have to prove damages as a consequence of that breach

- b. The answer should refer to clause 60.4 and possibly 60.5. A change in quantity is not, in itself, a compensation event. Clause 60.4 defines that it is a compensation event if a number of factors happen. The first and second bullet points are relevant in this case. Did the removal of the Bill item cause the Defined Cost to change and if the item removed is multiplied by the final total quantity of work done and is more than 0.5% of the total of the Prices at the Contract Date then the Contractor will be able to claim a compensation event. **[15 marks]**

Although for the contractor to assess in the first place, it will ultimately be up to the Project Manager to assess it accordingly. If the Contractor disputes the PM's assessment he will have to follow the dispute resolution procedures in the contract. Clause 60.5 also relates to a change in the Bill of Quantities but the circumstances do not seem as if the change delayed Completion or a Key Date.

The PM's comments in the risk reduction meeting are not actually relevant. If the Contractor cannot prove the defined cost it will be identified at open market or competitively tendered rates. Clause 52 should be mentioned. That could be a problem and would be an interesting area to explore in a good answer. Just because he paid cash does not mean that he did not obtain a receipt.

### Question 4

- a. This is a tricky question about late responses and design acceptance. The PM is entitled to refuse acceptance of any submission if he needs more information (Clause 13.4). However, the contractor is only obliged to provide the particulars set out in the Works Information. The initial late response is clearly a CI 60.1(6) **[11 marks]**

Compensation Event which the Contractor was correct to notify. The PM may say that his failure to respond was due to the contractor's default (CI 61.4) but that is unlikely to succeed. The contractor is quite correct to stop work. He may not proceed until the design is accepted.

The instruction to provide more details is not communicated in writing (Clause 13.1) which should be mentioned. The implication of withholding acceptance for 13.4 is that it is not a clause 60.1(9) CE. However, the requirement is an additional constraint on the Contractor and so a change to the Works Information. He should notify a CI 60.1(1) Compensation Event. There may be some discussion about using the risk reduction system.

- b.** There are a number of communication issues which might be mentioned, but the obvious thing is that Spark Utilities are either an Other per clause 11.2(10) or a subcontractor. The answer should discuss this. Assuming they are an Other, then their failure may be a CE. The third bullet point of clause 60.1(5) should be mentioned - if the Employer or Others carry out work on the Site that is not stated in the Works Information. In effect the Employer undertakes to give the contractor exclusive possession of the site except as stated otherwise in the Works Information. **[11 marks]**

As with other compensation events which fix the Contractor's entitlement by reference to what is shown on the accepted programme, there is a potential problem if the Contractor seeks to fix dates relating to the obligations of the Employer and others when submitting revised programmes for acceptance. Under 31.3 the Project Manager must either accept the programme or reject it giving the Contractor reasons within two weeks of the Contractor's submission. Failure to respond would be a compensation event under 60.1(9). The Contractor may claim the delay under this. But better answers will discuss the difficulty the contractor will have in proving causation.

- c.** The obvious point is that CI 60.1(5) is involved and so the CE much more straightforward. **[3 marks]**

## Section 2

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### Question 5 Compulsory

- a. Big and Formfix** **[9 marks]**

Formfix identified the problem and notified Big.

We have to assume that an instruction from Big to Formfix to bend it 'to fit' was valid under the sub-contract. However, Formfix must also consider its obligations to execute the works to the Engineer's satisfaction and to comply with the provisions of the main Contract

It seems that in complying with the instruction Formfix failed to maintain cover to reinforcement. The instruction "bend to fit" did not change the specified cover, so Formfix have liability for this failure.

Giving notice in writing has helped Formfix's position and they may not be liable for the incorrect fixing using bars bent to fit, as they were following Big's instruction.

At this point it seems that Big could be liable to pay Formfix for fixing the steel, the additional cost of trying to bend it to fit and possibly prolongation but Formfix are



liable for the reduced cover.

However, Formfix also omitted some reinforcement, which was not 'bending it to fit' so, in this regard, Formfix will be liable to Big for losses arising from the demolition and reconstruction of part of the basement or alternative remediation.

**b. Big and the Employer**

**[8 marks]**

Big is liable to the Employer for breaches by its sub-contractors. The liability could be more than Formfix can afford. If Formfix went into administrative receivership Big would be faced with cost of putting right Formfix's mistakes.

Big is entitled to an instruction from the Engineer to resolve the impossibility. This may be to resolve the discrepancy (Clause 5), issue further drawings or reinforcement schedules or change the specification (Clause 7) or an instruction on any matter (Clause 13) to resolve the physical impossibility of fixing the reinforcement as designed.

The Employer would normally be liable for costs arising from ambiguities or discrepancies in the drawings. However, Big was aware of a potential problem and failed to notify the Engineer and committed breaches of contract in an attempt to resolve the problem. This situation is not unusual and should have been relatively easy to resolve by seeking further instructions from the Engineer. So Big is liable for the additional costs arising from these breaches and the Employer is liable for the direct cost of amending and fixing the reinforcement in the basement corners, as if the matter had been drawn to the attention of the Engineer at the time.

**c. The Engineer and the Employer**

**[8 marks]**

Under Clause 2 the Engineer carries out the duties specified in the Contract. This he has done and the responsibility for delays and additional costs are not the Engineer's. However, as the Engineer was also the designer, he is liable to the Employer as the designer for the impossibility of the reinforcement design. The Employer could seek to recover any additional costs that would not have been incurred had the designer exercised reasonable skill and care to ensure that the reinforcement design was correct and capable of being fixed in place.

The designer's checking procedures have been found to be at fault and unnecessary cost has resulted in the delivery of this contract. If the scheduled reinforcement had been capable of being fixed, neither Big nor Formfix would have incurred additional costs. Whilst this does not give the contractor and sub-contractor relief from their responsibilities, it does highlight the fact that the designer's failure started this whole chain of issues.

It should also be noted that the Engineer took several weeks to agree that it was impossible to fix the reinforcement which he designed. Did the Engineer have a conflict of interest in this regard that contributed to the delays and could the delays have caused the Employer to incur additional costs?

Finally, if the Employer continues to employ the Engineer as a designer, he would do well to seek assurances on the steps the designer has taken to improve the checking of his designs.

### Question 6

- a. The Engineer should send the list of work required to the Contractor, with a request for the Contractor to complete it as soon as practical, Clause 49(2). The Contractor may dispute some of the items as not being his responsibility (49(3)). **[ 15 marks]**

The Contractor should have given an undertaking under Clause 48(1) to complete outstanding work in the Defects Correction Period. Note times can be specified for this but often are not, allowing the Contractor to leave work until the end (49(1)).

Clause 49(4) allows the Employer to carry out the work using another contractor and recover the costs from the original Contractor if the works should have been carried out at the original Contractor's expense. It is essential that the original Contractor is given every opportunity to complete the work himself, so a clear trail of requests and refusals between the Employer and the Contractor should be in place.

The Employer may have to wait until the end of the Defects Correction Period to arrange for the work to be carried out. The exception to this is if urgent repairs are required. Clause 62 allows the Employer to carry out urgent repairs and deduct the costs of doing so from monies owed to the original Contractor or request payment on demand. This work was in the highway and some of it could have been urgent (e.g. sunken reinstatement)

Clause 49(4) allows the Employer's cost of carrying out the repairs to be recovered from monies due or to become due to the original Contractor. In this case it is possible that only retention will remain and that maybe insufficient, so the Employer will have to seek recovery of his costs in other ways. In any event the cost of carrying out the work by others should be reasonable and the Employer should inform the original contractor when the work is being carried out and the forecast costs, updated as necessary. This would give the original Contractor the opportunity to observe/inspect the repair works and comment appropriately. Details of the final costs should also be provided.

- b. (i) The Employer could try to negotiate a settlement with the original Contractor for a sum greater than the £120,000 offered, recognising that the full £255,000 may have been unreasonably high. **[10 marks]**

(ii) The Employer could pursue the original Contractor for the full £255,000 through the mechanics of the Contract, using Clause 66. In this case adjudication could be used to bring matters to a head.

(iii) Formal action beyond adjudication is unlikely to be cost effective, as legal and management costs would probably greatly exceed the level of return, if successful. If not the Employer could lose even more money. A risk analysis should be carried out to inform any decision.

(iv) The Employer could seek to recover some of the monies from the substitute contractor, if it could be shown that the repair work was not carried out diligently and with reasonable skill and care.

(v) Just because the original Contractor defaulted in his obligation to rectify the defects it does not mean they can be corrected at any cost to him.

### Question 7

- a. Method Related Charges (MRC's) are charges that are not quantity related and are not re-measured. They should be fully described but often are not (as in this case). **[15 marks]**

Payment is made in accordance with clause 60 and included in the Contractor's monthly applications for payment. If the method is adopted the fixed charge would normally be paid after mobilisation and the time related charge on a weekly basis up to the total charge.

Where the method is not adopted the Contractor still receives payment for the MRC's. The payment is subject to the agreement between the Engineer and Contractor, in this case the mobilisation charge could be paid when the alternative dewatering method is in place and time based charge made on a weekly basis, relative to the duration expected. Failing any agreement then they should be paid as an Adjustment item in accordance with CESMM. In any case the Engineer should certify payment of the whole of his MRC's when the activity has been completed i.e. the activated sludge tank has been constructed to the extent that dewatering is no longer required.

There is an error in the extension for the Time Related Charge and Star should be paid a total of £55,000 not £70,000. Also note that certification of the time related charge at £2000/week could result in over payment of the item.

The instruction for the settlement tank constitutes a variation and should be valued using the principles of Clause 52. Failing the agreement of a quotation then valuation would be based on bill rates. This principle also applies to MRC's. The Contractor should be paid additional MRC to those in the original bill. Since well point dewatering is proposed for the settlement tank, the billed MRC's are an obvious starting point for valuation. The greater depth of excavation of the settlement tank would require deeper well pointing and hence an adjustment to the MRC. The duration required would probably be different too.

- b.** For the increase in quantity of the excavation clause 56 applies. The Engineer has to decide on whether the bill rate was inadequate. The Engineer has to establish an appropriate rate, the main consideration being whether the nature of the excavation operation has changed from that planned at tender stage. The Engineer will need information from Star to establish a new rate and the high initial rate will be more exposed. If the method of excavation is unchanged an increase in rate is unlikely to be justified. However, Star would still benefit from having a high rate applied to the larger quantities. **[10 marks]**

The Engineer could consider a reduced rate if the increase in quantities was substantial and the economies of the operation had changed. Although it is not the case here, any fixed charges contained in the rate cannot be recovered by Star if the billed quantity reduces on re-measurement

With regard to the excavation for the additional tank then this is valued using the billed excavation rates. The fact that the excavation rate was high to start with will work to Star's advantage. If the operation is different, for example a bigger and more expensive to achieve the depth required, then the rate should be adjusted appropriately.

## Question 8

- a. The main issue for the claim would be to prove that the Employer's failure to make all of the site available and then provided a different site layout which caused the Contractor to change his method of working, which was more expensive and took longer than his tendered method (which was reasonably achievable). Clause 42(3) refers. It appears that the claim might not have been submitted until completion. If so, payment may be limited under Clause 53 (4). [25 marks]

The first step is to identify and be able to prove the reasons why the contract was prolonged and to what extent, then to identify the operations that incurred additional costs and why.

### **Additional Craneage Costs**

The Contractor was unable to undertake the excavation operation as planned in his tender because the site area was not available (A=3000m<sup>2</sup>) to him at the specified commencement date. After 4 weeks an alternative area B was made available but this was smaller at 2000m<sup>2</sup> and not in the same position.

A diagram of the site would help to clarify the different positions, demonstrate understanding and aid the answer.

Whether Wecandoit could or should have started work on site before Area B was made available would need to be addressed in the claim.

When work started the Contractor's operation was different to that planned. A tower crane could not be used because of the new site shape and a mobile crane had to be used instead to enable movement between operations presumably because of the new site shape.

The claim will need to show that this difference changed the way in which Wecandoit had to work, leading to a less efficient and longer operation.

The difference in the cost of craneage should be a matter of fact, based on the extent of time planned for the tower crane and required for the mobile crane.

### **Extension of Time for Completion of the Works (Clause 44)**

Costed, resourced programmes will be required to demonstrate that the critical path was 10 weeks longer than reasonably planned. From this the additional resources can be identified along with their rates or costs depending on the method of measurement to justify prolongation of the critical path.

### **Deterioration of the Excavated Material**

The deterioration of material due to the prolonged operation could prove more difficult to demonstrate. What measures did Wecandoit take to protect the excavated material so that it could be reused? Was the condition of the excavated material monitored and was this potential problem notified to the RE, It might be necessary to seek expert geotechnical advice to support this part of the claim.

Unless prolongation is proven and accepted this part of the claim would fail.