UNIVERSITY OF SOUTH AUSTRALIA
SCHOOL OF GEOINFORMATICS, PLANNING & BUILDING

PROGRAMS:	**Master of Project Management** **Graduate Diploma in Project Management** **Graduate Certificate in Building & Planning**
COURSE:	**Project Procurement (BUSS 5143)**
EXAMINATION:	**Internal Exam, Semester 1, 2003**
DURATION:	**3 Hours of Exam time preceded by 10 minutes of Reading time, a total of 3 Hrs 10 Mins.** **For ENTEXT students 10 minutes of Reading time plus 3.5 Hours of Exam time, a total of 3 Hrs 40 Mins.**
EXAMINERS:	**Greg Kendall & John Dawson Tel-8272 9099**

INSTRUCTIONS TO CANDIDATES:

- You must answer **all** Multiple Choice Questions in Section A
- You must answer **two (2)** questions from Section B, that is, one (1) question from Part A and one (1) question from Part B
- No reference materials are allowed. Calculator is allowed.

Section A: Multiple Choice

(You must answer all Questions)

For each of the fifteen (15) questions, circle the one (1) most correct answer: (a), (b), (c), or (d).

Each question in this Section is worth 2 marks.

1. A Public Private Partnership is
   (a) a legal entity jointly owned by the government and a private company
   (b) a contractual method used for financing joint research
   (c) a strategy for financing large infrastructure projects
   (d) none of the above.

2. A fixed price contract
   (a) is locked in and will not change in value for the life of the contract
   (b) is another name for a lump-sum contract
   (c) has the prices listed in a schedule of rates
   (d) all of the above.

3. Fast-tracking means simultaneous
   (a) design and management of a contract
   (b) design and construction of a contract
   (c) management and construction of a contract
   (d) none of the above.

4. Turnkey projects are
   (a) a variation of GMP projects
   (b) financed and constructed by a contractor
   (c) a variation of the design and construct strategy
   (d) none of the above.

5. A BOO strategy
   (a) means Build Outsource Operate
   (b) facilitates infrastructure development without government funds
   (c) requires a design and construct contract to implement it
   (d) all of the above.

6. An alliance contract
   (a) is a special purpose contract developed to implement a BOOT arrangement
   (b) is another name for a Partnering arrangement
   (c) will reflect pain and gain sharing principles
   (d) all of the above.

7. A single stage procurement process
   (a) is a competitive, bidding process
   (b) involves negotiations with a single supplier
   (c) is restricted to a single round of tenders and excludes negotiation
   (d) none of the above.

8. An acquisition plan includes
   (a) the recommended market approach
   (b) a procurement risk plan
   (c) an evaluation plan
   (d) all of the above.

9. A novated contract is
   (a) a variation of a design and build contract
   (b) facilitates fast-tracking a project
   (c) avoids the risk of achieving a project on time and budget but with an unsuitable design
   (d) all of the above.

10. A Management Contractor
   (a) does some of the work by themselves
   (b) employs the works contractors and sub-contractors directly
   (c) acts as a consultant to the owner
   (d) none of the above.

11. Specifications have several key functions in procurement
   (a) define criteria for monitoring the contract
   (b) communicate requirements to potential contractors
   (c) protect the principal/buyer
   (d) all of the above.

12. Conditions of tendering include
   (a) tender evaluation scoring system
   (b) rules governing the tender process
   (c) the industry brief details
   (d) all of the above.

13. Key issues in tender evaluation include
   (a) veracity of offers
   (b) structure of the tender evaluation team
   (c) post tender negotiation
   (d) development of a contract management plan.

14. Which evaluation technique would be the most suitable in the selection of a design engineer
   (a) whole of life cost
   (b) lowest fee
   (c) weighted matrix
   (d) lowest cost.

15. The responsibilities of the Project Sponsor in tender evaluation includes
    (a) appointing tender evaluation team & leading the negotiations
    (b) providing terms of reference for the evaluation team & leading the team
    (c) developing the recommendation & monitoring project budgets
    (d) providing terms of reference for the evaluation team & ensuring resources are available.

Section B: Written Answers

You must answer one (1) only question from Part A and one (1) only question from Part B. Each question is worth 35 marks.

Part A Case Study

Notes:

1. Select one (1) scenario, that is, ***either*** Scenario A ***or*** Scenario B
2. You should address the scenario you have chosen and answer all the listed parts of the question.

Scenario A: Construction Project

You are to consider the contracting strategies listed below for the design and construction of a brand new 5 star resort hotel and then answer all the listed parts of the question.

The hotel should be finished in time to coincide with the opening of a major entertainment theme park. The site for the Hotel has been selected and the owner has defined the parameters for the hotel (for example, the number and type of accommodation rooms; the number and style of restaurant, bar and banqueting facilities; the range of sporting and relaxation facilities; shopping etc). No detail design work has been contemplated yet, however, the owner has approved sketches of the external appearance and entrance foyer.

The owner has defined the following criteria for the hotel:

- Price competition
- Price certainty
- Controllable variations
- Quality
- Risk avoidance.

The owner is not concerned about personally selecting the design but has indicated that it must be undertaken by a design firm or construction company which has international experience in hotel design.

1. Discuss the advantages, disadvantages and risks associated with:

(a) a single contract ***Design and Construct*** contracting strategy using a lump sum contract covering the entire design and construction, and

(b) a ***Traditional*** contracting approach using two separate contracts, namely: a percentage fee contract (based on the cost of the hotel) with a specialist architect for the design of the hotel, and a lump sum contract with a construction company for the construction of the hotel.

(20 marks)

2. Briefly, describe how you would select:

(a) the Design and Construct company in Question 1a (above);

(b) the construction company in Question 1b (above). (7.5 marks)

3. Briefly comment on whether

(a) a novated contract would be appropriate or not as an alternative contracting strategy to the single contract Design and Construct contracting strategy outlined in Question 1a (above); and

(b) a construction manager would be an appropriate strategy or not as an alternative to the Traditional contracting approach outlined in Question 1b (above).

(7.5 marks)

Scenario B: IT Project

Note: do **not** answer this if you have answered Scenario 1.

You are the Project Manager for a major new IT system being installed by an international bank. You are to consider the contracting strategies for the project which are listed below and then answer all the listed parts of the question.

The project includes new hardware and specialised banking software to be installed in head office and numerous branches. The project has very tight deadlines and a strict budget.

Directors of the bank have defined the following procurement criteria for the system:

- Price certainty
- Controllable variations
- Time certainty
- Quality

- Risk avoidance
- Future support.

The Bank has issued specifications for the system which define all the outcomes and outputs, performance criteria and tests, operating environments, transaction rates and volumes, the IT protocols to be adopted by the successful contractor etc.

1. Discuss the advantages, disadvantages and risks associated with:

(a) a single contract ***Turnkey*** contracting strategy using a lump sum contract covering the design and installation of the complete system, and

(b) a modern contracting strategy comprising a number of separate lump sum contracts covering the various project packages (such as system architecture and design, hardware, software, communications etc) and a contract with an expert ***Construction Management company*** *(or Systems Integrator)* to manage these contracts and ensure their successful integration.

(20 marks)

2. Describe how you would select:

(a) the Turnkey company in Question 1a (above);

(b) the Construction Management company in Question 1b (above).

(7.5 marks)

3. Briefly comment on whether:

(a) a GMP contract would be appropriate or not instead of a single contract ***Turnkey*** contracting strategy as discussed in Question 1a (above);

(b) a construction manager would be an appropriate strategy or not instead of an expert ***Construction Management Company*** *(or Systems Integrator)* to manage these contracts and ensure their successful integration as discussed in Question 1b (above).

(7.5 marks)

Part B Case Study

Read the following case study and answer one only of the two questions listed at the end of the case study.

The Department of All Things Good (DATG) decided that it needed a major upgrade of its records management system. Given the multi million dollar value and high risk nature of the project, a public tender was decided to be called.

In preparation for the tender the DATG formed a project team to undertake a detailed needs analysis to ensure that stakeholders and end users' needs were addressed in the acquisition process. As a consequence a draft specification outlining the DATG's requirements was developed. The project team also used this document to develop evaluation criteria for use in the tender. The acquisition strategy plan was approved by Board, and included as attachments the draft specification and the tender evaluation process.

The market research indicated that there were many potential providers and the DATG determined to adopt a two stage tender process; an initial Registration of Interest (ROI) to quickly identify potentially workable products followed by a Request For Tender (RFT) to investigate in more detail the offered solutions.

As a result of the ROI the DATG invited five companies (A, B, C, D and E) to submit a bid against the RFT document. The RFT contained the:

- Conditions of tendering;
- Evaluation criteria and methodology; and
- DATG's final specification.

The major and sub evaluation criteria outlined in the RFT were:

Major criteria (in order of priority)	*Sub criteria*
1. Product solution	• Operational and Technical Performance • Implementation & Post-implementation Plan • Integration • Viability of product solution • Contract arrangement
2. Cost and other Financial Issues	• Whole of project costs • Financial viability
3. Support	• Implementation and post implementation • Product development • Training
4. Management Systems	• Quality • Human resources
5. Stability of supplier	• Delivering similar systems • Successful project management
6. Economic development	• Economic benefits to the State • Identification of industry opportunities (including opportunities to small to medium sized firms, SMEs)

In addition the conditions of tendering provided:

- Neither the lowest tender, nor any tender, will necessarily be accepted by the DATG. Acceptance of tender will be effected by the execution of a discrete Contract between the DATG and the successful Tenderer in the terms of the draft Contract.

- The DATG reserves the right to reject any offer, which does not comply fully with the Clauses contained in the RFT and its Attachments.

- The DATG shall not accept any tenders received after the closing time.

- During the evaluation of the tenders pursuant to this tender process the DATG reserves the right to seek clarification in relation to any ambiguity or uncertainty from any or all of the Companies in relation to their offer. The DATG will not enter into any discussion or negotiation whatsoever concerning the price component of the Tenders during the evaluation of the offers and while the tender process is on foot.

- Alterations will not be allowed after a Tender has been submitted.

- The DATG reserves to itself absolutely the right to vary or amend the terms and conditions of this Request for Tender upon giving the Tenderers timely and concurrent written notice of such variation or amendment.

- The DATG reserves the right to make available to advisers and third parties a copy of the tenderers or part of the tenders for evaluation purposes only. Measures designed to achieve the strict confidentiality of the information contained in the proposals will be implemented and maintained.

- The DATG undertakes to maintain the confidentiality of information received in response to this request and will not release it to any competitor or potential competitor without written authority of the Tenderer.

The evaluation methodology outlined in the RFT was:

- A qualitative assessment technique will be used for evaluation. The proposals will be evaluated against all of the above criteria. The recommendation will be on a value for money basis taking into account the identified advantages of tenderers against:
- criteria 1, 3, 4 and 5, and
- criteria 2, and finally
- criteria 6.

The DATG appointed a technical advisory committee (TAC) comprising members of the project team. Additionally, two external bodies were appointed. Price Pty Ltd was appointed to solely evaluate the cost and financial issues and the Department for Economic Development (DED) was requested to solely undertake an assessment of the economic development potential of the tenders. The TAC, DED and Price Pty Ltd were required to evaluate tenders against their respective criteria and report directly to the DATG's Director of Information Services (who was also a member of the Board) with their recommendations. The DATG's Director of Information Services was responsible for developing and presenting to the Board a consolidated recommendation after considering the inputs of the external bodies.

The DATG received four tenders before the specified closing time (A, B, C and E). The other (D) was submitted an hour after the closing time by a courier. Tenderer D had alerted the DATG to the fact that its submission may be late prior to the closing time. The other bids had not been opened at this stage and the DATG determined to open all five tenders as they wanted to ensure the greatest possible competition. Tenderers A and D were registered Australian companies based interstate. Tenderers B and E were international companies with regional offices based interstate. Tenderer C was a local based SME.

The evaluation of all five tenders proceeded as per the evaluation methodology.

During the course of the evaluation the Price Pty Ltd sought clarifications from the tenderers regarding aspects of their prices and company finances. As a result:

- Tenderer C submitted a revised price based on the clarification sought which reduced their price by 7% and increased their economic development commitment to the State, and
- Price Pty Ltd determined that Tenderer E was not financially viable.

Additionally, Price Pty Ltd confirmed with the appropriate Government Department that Tenderer C was eligible to receive Government grants under an employment incentive policy for SMEs to employ new trainees. After discussions with Price Pty Ltd, Tenderer C agreed to reduce its tendered price further as a result of their eligibility to receive Government grants.

Meanwhile, the TAC, Price Pty Ltd and Department for Economic Development convened to discuss the finding that Tenderer E was not financially viable. Amongst other things, the current status of the evaluation and the tenderers' performance against all evaluation criteria was discussed. It was discovered that Tenderer E was performing poorly against all criteria; specifically its product solution was not preferred and its costs were relatively high. Price Pty Ltd was resolute in their finding and the meeting decided that, given the current rating of Tenderer E and the fact they were not financially viable, there was no point in evaluating them any further. At this stage Tenderer E was excluded from the tender evaluation process. The TAC contacted Tenderer E to inform them of this action.

At the conclusion of the evaluation the following recommendations were tabled to the DATG's Director of Information Services:

- After reviewing criteria 1, 3, 4 and 5 the TAC recommended Tenderer A as it had the preferred product solution which exceeded the DATG's requirements. Additionally they had better than average support, management systems and stability. Tenderer C was the next preferred product solution but was less preferred than Tenderer A with regard to support and management systems and was considered less stable given it was a SME.

- After reviewing criteria 2, Price Pty Ltd recommended Tenderer C as it offered the lowest cost. This recommendation considered the price reductions offered by Tenderer C. Price Pty Ltd noted there was not much between Tenderers C and A regarding price, and

- After reviewing criteria 6, the DED recommended Tenderer C as it was a local based firm that offered 'far and away' the most economic stimulus to the State. The DED highlighted the lack of economic stimulus for the State with the offers from Tenderers A and D whose head offices were interstate.

A summary of the rankings against each of the criteria are in the table.

Criteria	**A**	**B**	**C**	**D**	**E**
Product solution	1	3	2	4	-
Cost and other Financial Issues	2	3	1	4	5
Support	2	3	4	1	-
Management Systems	1	2	3	4	-
Stability of supplier	2	1	3	4	-
Economic development	3	2	1	4	-

These reports were tabled with the Director of Information Services who was responsible for submitting a consolidated recommendation to the Board.

The DATG's Director of Information Services presented a report to the Board:

- Recommending DATG enter into contract with Tenderer C because their product solution met the technical specification at a lower cost and there were significant economic development opportunities.
- Noting that Tenderer A's product solution was preferred but that it was more expensive and had fewer economic development opportunities.
- Noting that Tenderer B offered a solid but comparatively expensive product solution.
- Noting that Tenderer D was clearly inferior.
- Noting that Tenderer E was excluded from further evaluation as it was not financially viable.

Questions (answer only one question)

1. Discuss the following procurement issues as they relate to this case and generally in procurement:

   i. Probity principles and objectives, (15 marks)

   ii. Purpose of the Conditions of Tendering, and (10 marks)

   iii. Based on your answers to the above, do you think any of the tendering organisations has a legitimate claim against the Department? (10 marks)

2. Discuss the following tender evaluation issues as they relate to this case and generally in procurement:

   i. Components and objectives of a 'Tender Evaluation Plan', (15 marks)

   ii. Importance and role of tender evaluation teams, and (10 marks)

   iii. Use of a 'Weighted Evaluation Matrix'. (10 marks)

######################## End of Questions ########################