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CONFIDENTIAL

SET A

UNIVERSITI KUALA LUMPUR
Malaysia France Institute

FINAL EXAMINATION

JULY 2010 SESSION

SUBJECT CODE	:	FCD 30202
SUBJECT TITLE	:	TENDER AND DOCUMENTATION
LEVEL	:	DIPLOMA
TIME / DURATION	:	4.00pm – 6.00pm (2 HOURS)
DATE	:	08 NOVEMBER 2010

INSTRUCTIONS TO CANDIDATES

1. Please read the instructions given in the question paper CAREFULLY.
2. This question paper is printed on both sides of the paper.
3. Please write your answers on the answer booklet provided.
4. Answer should be written in blue or black ink except for sketching, graphic and illustration.
5. This question paper consists of TWO (2) sections. Section A and B. Answer all questions in Section A. For Section B, answer two (2) question only.
6. Answer all questions in English.

THERE ARE 5 PAGES OF QUESTIONS AND 3 PAGES OF APPENDIX, EXCLUDING THIS PAGE.

SECTION A (Total: 60 marks)

INSTRUCTION: Answer ALL questions.
Please use the answer booklet provided.

Question 1

The department has just purchase a Tender Document for Mechanical and Electrical work for local university at Selangor.

(a) Give strong reasons why the schedule of equipment should be in drawing rather than in the specification?

(3 marks)

(b) How do you know the owner or client want you to be one of the bidder in their project?

(3 marks)

(c) Your company becomes a successful bidder in this tender. How do you know your status and what will happen to the tender document?

(4 marks)

Question 2

(a) There is one project owned by University Kuala Lumpur. The persons involved in this project are Civil Contractor, Supplier, Mechanical Contractor and Electrical and Switchboard Contractor. Sketch the organization chart of work breakdown structure for this project.

(6 marks)

(b) Jabatan Kerja Raya already states the Tender Deposit for each project either for domestic or international. As a company which already registered with PKK, how much the tender deposit that your company should pay?

(4 marks)

Question 3

(Detached this page and submits with the answer booklet)

Referring the table Q3 completed the claim in that table. Knowing that this project is already complete and the retention money is 5%.

(15 marks)

Table Q3: Final Claim

Item	Description	Qty	Amt (RM)	% Claim	Amt Claim (RM)
1	**Tingkat 1 Bilik Aktiviti (22,000 Btu/hr)**				
a.	Fan Coil Unit c/w filters, coil ,motors,	1	2.194,82		
	control, condensing unit and all				
	accessories				
b	Refrigerant piping c/w insulation and	1	344,72		
	accessories				
c	Electrical wiring works	1	114,91		
d	Condensate drain pipe discharge to	1	56,97		
	floor waste c/w accessories				
2	**Tingkat 1 Bilik Mesyuarat (30,000 Btu/hr)**				
a.	Fan Coil Unit c/w filters, coil ,motors,	1	4.134,72		
	control, condensing unit and all				
	accessories				
b	Refrigerant piping c/w insulation and	1	872,91		
	accessories				
c	Electrical wiring works	1	114,91		
d	Condensate drain pipe discharge to	1	114,91		
	floor waste c/w accessories				
	ORIGINAL CONTRACT AMOUNT				
	LESS 5% RETENTION MONEY				
	TOTAL CLAIM (RM)				

Question 4

Your company's accountant will prepare the Cash Flow Statement and assume that, the balance from previous month is RM 15,000.00.The client takes three (3) months to pay from the date of your account @ RM 15 for each unit. Prepare a cash flow statement based on the data below from May '10 to Oct '10

(a) Income

i. February = 500 unit
ii. March = 600 unit
iii. April = 1500 unit
iv. May = 1500 unit
v. June = 1000 unit
vi. July = 1000 unit
vii. August = 800 unit
viii. Sept = 900 unit
ix. Oct = 1000 unit
x. November = 800 unit
xi. December = 900 unit

(b) Cost of the project:

i. Site overhead need to pay for each month is RM 300.00
ii. Cost for material is RM 1.80 each unit and two month credit given by the supplier
iii. Company need to pay RM2 each unit for labor in month used.
iv. The loan repayment for May (RM 10,000), July (RM 10,000), September (RM 18,000) and October (RM 2,000).

(25 marks)

SECTION B (Total: 40 marks)

INSTRUCTION: Answer only TWO questions.
Please use the answer booklet provided.

Question 5

Study the procurement schedule as per attached in appendix 1.Showing that, the delivery of Chiller will be completed within 10 weeks.

(a) What will happen if the delivery of chiller is more than 10 weeks?

(16 marks)

(b) What do you understand with the term "Critical Path"?

(4 marks)

Question 6

In the process that handling over the project to the client, the following item should be prepared by the contractor.

(a) Explain the "Operation and Maintenance Manual".

(16 marks)

(b) What will be the effect if the contractor failed to prepared and submits the Operation and Maintenance Manual in the time has given.

(4 marks)

Question 7

Study the Bill of Quantity as per attached in appendix 2.The client want to add another two (2) nos. of 28,000 Btu/hr cassette type air conditioner and omit two (2) nos. of 10,000 Btu/hr wall mounted type split unit air conditioner.

(a) Revised your Bill of Quantity by referring the omission and addition as per request by the client. Use appendix 3 (must be return with answer booklet) as your new Bill of Quantity.

(15 marks)

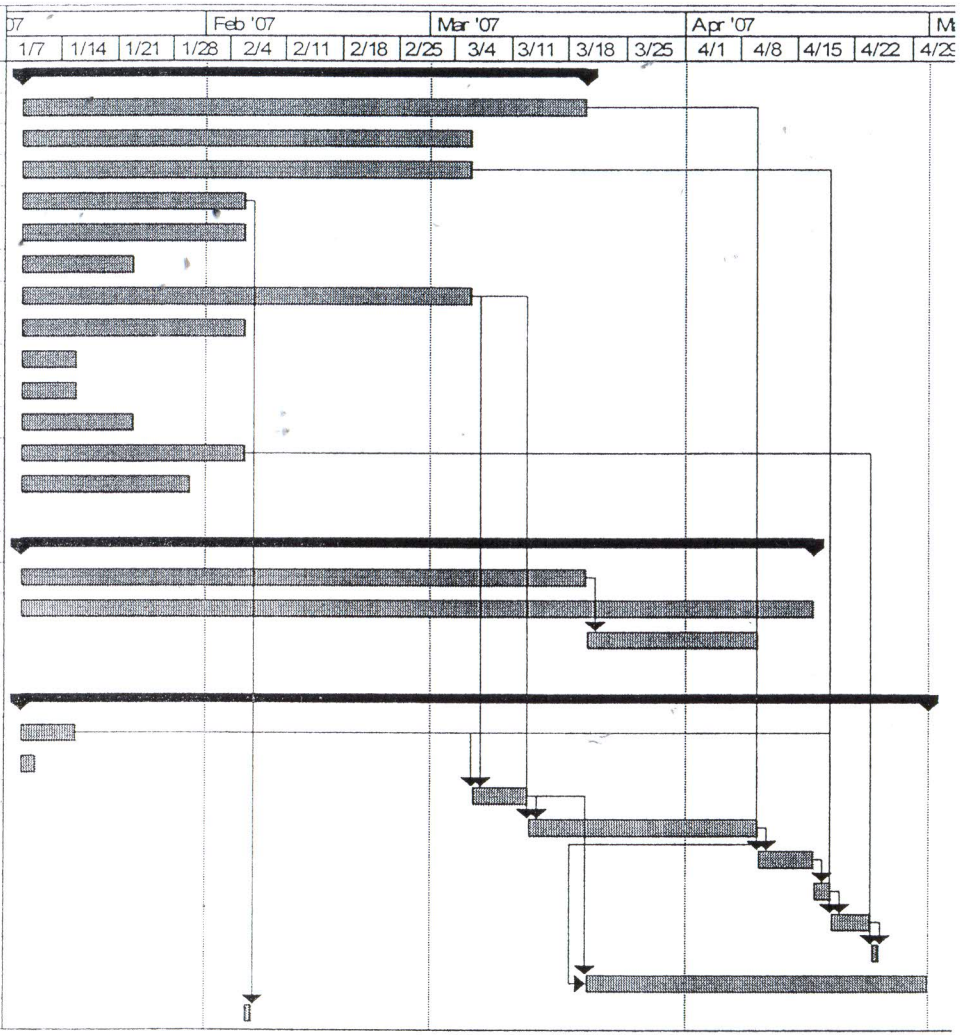
(b) Give the definition of Variation Order (VO).

(5 marks)

END OF QUESTION

Appendix 1: Procurement Schedule

ID	Task Name	Duration
1	**Procurement & Delivery**	50 days
2	Chiller	10 wks
3	Cooling Tower	8 wks
4	Pumps	8 wks
5	Expansion Tank	4 wks
6	Make up Tank	4 wks
7	Chemical Water Treatment	2 wks
8	AHU & FCU	8 wks
9	Split Units	4 wks
10	Pipe	1 wk
11	Duct	1 wk
12	Grilles	2 wks
13	Switchboard	4 wks
14	Exhaust Fans	3 wks
15		
16	**Internal Building Installation**	70 days
17	Duct	10 wks
18	Pipe	14 wks
19	Grilles	3 wks
20		
21	**Equipment Installation**	80 days
22	Prepare plinth	5 days
23	Prepare room opening	2 days
24	AHU	1 wk
25	FCU	4 wks
26	Chiller	5 days
27	Prepare inertia block	2 days
28	Pump	3 days
29	Switchboard	1 day
30	Wiring work	30 days
31	Expansion Tank	1 day



Appendix 2: Bill of Quantity

Item	Description	Unit	Qty	Unit Rate	Amount
A	Air Conditioning & Ventilation System				
1	To supply and delivery of the following air cooled split unit air conditioners c/w wireless remote controllers.				
a	28,000 Btu/hr capacity Cassette type split unit air conditioners.	nos	2	3,300.00	6,600.00
b	25,000 Btu/hr capacity Cassette type split unit air conditioners.	nos	7	2,700.00	18,900.00
c	13,000 Btu/hr capacity Wall Mounted type split unit air conditioners	no	1	1,050.00	1,050.00
d	10,000 Btu/hr capacity Wall Mounted type split unit air conditioners	nos	6	950.00	5,700.00
2	Installation of the above air conditioners c/w refrigerant piping,insulation,drain,control wiring etc.				
a	28,000 Btu/hr capacity Cassette type split unit air conditioners.	nos	2	900.00	1,800.00
b	25,000 Btu/hr capacity Cassette type split unit air conditioners.	nos	7	800.00	5,600.00
c	13,000 Btu/hr capacity Wall Mounted type split unit air conditioners	nos	1	550.00	550.00
d	10,000 Btu/hr capacity Wall Mounted type split unit air conditioners	nos	6	500.00	3,000.00
3	To supply and install air cond,starter and control panels c/w starters,contactors,indicating light, ELCB,MCB etc as per make specified.				
a	SP/AC-G	no	1	4,900.00	4,900.00
b	SP/AC-1	no	1	3,350.00	3,350.00
4	To supply and install wiring in conduit from starter boards to all fan coil units and condensing units.				
a	using 2x1C/2.5mm2 pvc cable in concealed conduit for 1hp to 2hp air conditioners	nos	7	300.00	2,100.00
b	using 2x1C/4.0mm2 pvc cable in concealed conduit for 2,5hp to 3 hp air conditioner.	nos	9	350.00	3,150.00
	TOTAL (RM)				56,700.00

Appendix 3: Bill of Quantity (Must be return with answer booklet).

Item	Description	Unit	Qty	Unit Rate	Amount
A	Air Conditioning & Ventilation System				
1	To supply and delivery of the following air cooled split unit air conditioners c/w wireless remote controllers.				
a	28,000 Btu/hr capacity Cassette type split unit air conditioners.	nos		3,300.00	
b	25,000 Btu/hr capacity Cassette type split unit air conditioners.	nos		2,700.00	
c	13,000 Btu/hr capacity Wall Mounted type split unit air conditioners	no		1,050.00	
d	10,000 Btu/hr capacity Wall Mounted type split unit air conditioners	nos		950.00	
2	Installation of the above air conditioners c/w refrigerant piping,insulation,drain,control wiring etc.				
a	28,000 Btu/hr capacity Cassette type split unit air conditioners.	nos		900.00	
b	25,000 Btu/hr capacity Cassette type split unit air conditioners.	nos		800.00	
c	13,000 Btu/hr capacity Wall Mounted type split unit air conditioners	nos		550.00	
d	10,000 Btu/hr capacity Wall Mounted type split unit air conditioners	nos		500.00	
3	To supply and install air cond,starter and control panels c/w starters,contactors,indicating light, ELCB,MCB etc as per make specified.				
a	SP/AC-G	no	1	4,900.00	
b	SP/AC-1	no	1	3,350.00	
4	To supply and install wiring in conduit from starter boards to all fan coil units and condensing units.				
a	using 2x1C/2.5mm2 pvc cable in concealed conduit for 1hp to 2hp air conditioners	nos		300.00	
b	using 2x1C/4.0mm2 pvc cable in concealed conduit for 2,5hp to 3 hp air conditioner.	nos		350.00	
	TOTAL (RM)				