UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER II
SESSION 2014/2015

COURSE NAME	:	PROJECT MANAGEMENT
COURSE CODE	:	BPA 31803
PROGRAMME	:	2 BPB
EXAMINATION DATE	:	JUNE 2015 / JULY 2015
DURATION	:	3 HOURS
INSTRUCTION	:	ANSWER **ALL** THE QUESTIONS

THIS QUESTION PAPER CONSISTS OF **FIVE (5)** PAGES

Q1 (a) State **TWO (2)** benefits of accurate estimate to effective project management.

(2 marks)

(b) (i) Differentiate between bottom-up and top down estimating approaches.

(4 marks)

(ii) Explain conditions would you prefer one over the other estimating approach.

(4 marks)

(c) Ahmad is a Civil Engineer. He is planning to build his own bungalow in Parit Raja town. The buildup area of a bungalow in this town is 2,900 square feet with an average price of RM120 per square foot. Ahmad is able to install the plumbing and the interior decoration he if he desire.

The average bank interest in the region that provide loan and make disperses progress payments to contractors when specific task are verified as completed is as in **Table Q1**.

Table Q1

S/N	Percentage (%)	Description
1.	24	Excavation and framing complete
2.	8	Roof complete
3.	3	Wiring roughed in
4.	6	Plumbing roughed in
5.	5	Sliding on
6.	17	Windows, plaster, walks, and garage complete
7.	9	Kitchen cement fixtures installed
8.	4	Plumbing fixtures installed
9.	10	Exterior paint, light fixtures installed, finish hardware installed
10.	6	Carpet and trim installed
11.	4	Interior decorating
12.	4	Floors laid and finished

(i) Calculate the estimated cost for the bangalow house if Ahmad use contractors to complete the whole bangalow.

(8 marks)

(ii) Estimate the cost of the bangalow house if Ahmad do some of the work himself.

(2 marks)

Q2   (a)   Explain the importance of slack to the project manager.

(3 marks)

(b)   State the difference between free slack and total slack.

(2 marks)

(c)   The information of custom made to order project of an Air Conditioner Manufacturer is tabulated in **Table Q2**.

Table Q2

ID	Activity	Predecessor	Time (days)
A	Order review	None	2
B	Order standard parts	A	15
C	Manufacture standard parts	A	10
D	Design standard parts	A	13
E	Software development	A	18
F	Manufacture custom hardware	C, D	15
G	Assemble	B, F	10
H	Test	E, G	5

(i)   Draw a project network for this project.

(3 marks)

(ii)   Calculate the early activity time.

(3 marks)

(iii)   Calculate the late activity time.

(3 marks)

(iv)   Calculate the slack time.

(3 marks)

(v)   Identify the critical path.

(3 marks)

Q3   You are one of three machinists assigned to complete a short manufacturing project as shown in **Figure Q3**. Right before the start of the project, one of your fellow machinists was hospitalized and will not be available to work on the project.

Develop a resource-constrained schedule in the loading chart in **Table Q3** that follows to see how long the project duration will take only two machinists. Be sure to record the order in which you schedule the activities using the scheduling heuristics. Activities A, B, C, D, E, G and H require two machinists to complete. Activity F requires only one machinist. No splitting of activities is possible.
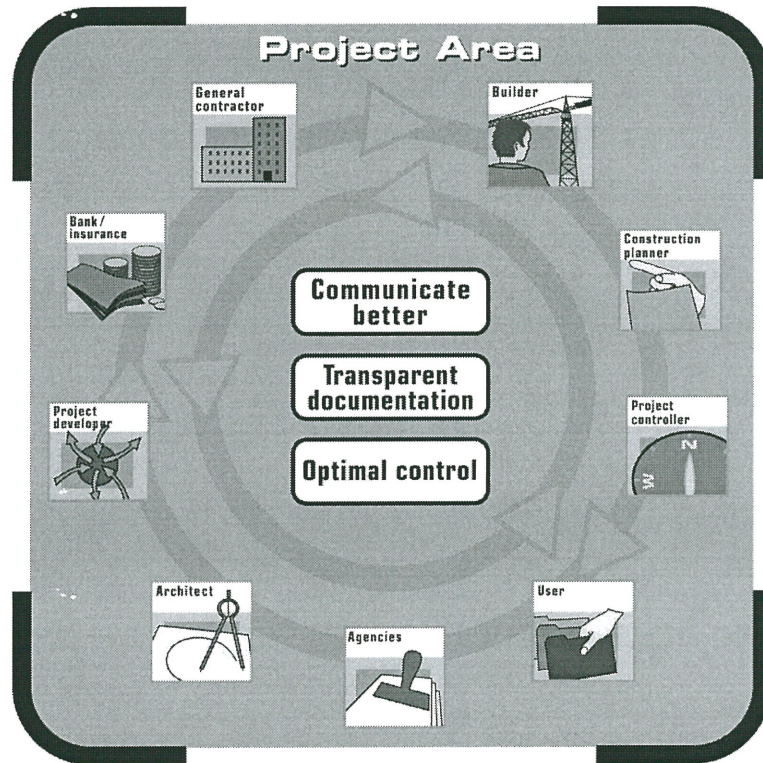
(20 marks)

Q4   Project Manager conducts a project evaluation meeting with all the project team members to review the project performance, problems faced, issues that cropped up in the project and conflicts.

Discuss **FIVE (5)** topics normally discussed by Project Manager in post evaluation.

(20 marks)

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Q5   **Figure Q5** shows telecommunication collaboration project at monitoring and controlling stage. The process begins with good project planning.

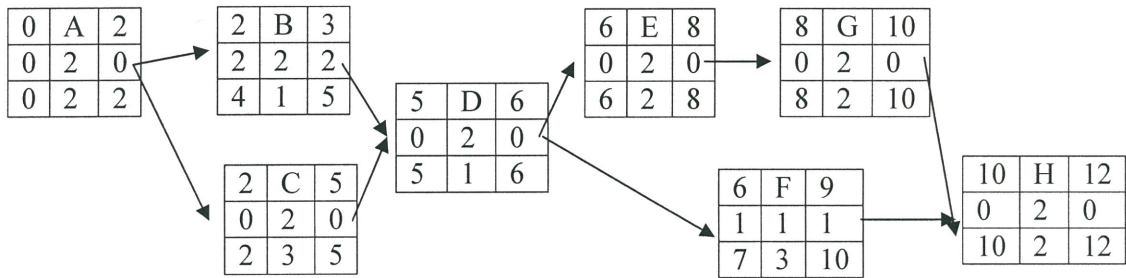**Figure Q5**: Telecommunication Collaboration Project

Based on the project;

(a)   List **FIVE (5)** barriers during the implementation of the project.

(5 marks)

(b)   Explain **TWO (2)** critical areas.

(5 marks)

(c)   Develop plan-monitor-control cycle to solve the barriers and critical areas.

(10 marks)

- END OF QUESTIONS -

FINAL EXAMINATION

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Network diagram (activity-on-node):

A:
0	A	2
0	2	0
0	2	2

B:
2	B	3
2	2	2
4	1	5

C:
2	C	5
0	2	0
2	3	5

D:
5	D	6
0	2	0
5	1	6

E:
6	E	8
0	2	0
6	2	8

F:
6	F	9
1	1	1
7	3	10

G:
8	G	10
0	2	0
8	2	10

H:
10	H	12
0	2	0
10	2	12

FIGURE Q3

TABLE Q3

ID	RES	DUR	ES	LF	SL	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
A	2					▓	▓																	
B	2							▓	▓	▓														
C	2							▓	▓	▓														
D	2											▓												
E	2												▓	▓										
F	1													▓		▓	▓							
G	2															▓	▓							
H	2																	▓	▓					
Resources scheduled																								
Resources available						2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		