UNIVERSITI SAINS MALAYSIA

Second Semester Examination
Academic Session 2006/2007

April 2007

RMK 252 – Pengantar Pengurusan Projek
(Principles of Project Management)

Masa: 3 jam
(Duration: 3 hours)

Sila pastikan bahawa kertas peperiksaan ini mengandungi **TUJUH** muka surat yang tercetak sebelum anda memulakan peperiksaan ini.

*Please check that this examination paper consists of **SEVEN** printed pages before you begin the examination.*

Jawab **LIMA** soalan sahaja. Jawab **TIGA** soalan dari **BAHAGIAN A** dan **DUA** soalan dari **BAHAGIAN B**.

*Answer **FIVE** questions only. Answer **THREE** questions from **SECTION A** and **TWO** questions from **SECTION B**.*

...2/-

BAHAGIAN A
SECTION A

1. Terdapat beberapa theori yang menerangkan kepimpinan.

   Bincangkan:-

   (a) Model pengurusan bergrid

   (b) Model kontigensi Fiedler

   Berikan hujahan anda terhadap kerelevanan setiap model untuk organisasi.

   There a few theories explaining leadership.

   Discuss:-

   (a) The managerial grid model

   (b) Fiedler's contingency model

   Give your justification on the relevancy of each model to the organisation.

   (20 markah/*marks*)

2. Berikan definisi untuk struktur organisasi dan bincangkan kepentingannya kepada organisasi.

   Bincangkan:-

   (a) Lima konsep struktur organisasi

   (b) Pendekatan kontigensi.

   Define organization structure and discuss its importance to the organisation.

   Discuss:-

   (a) The five concept of organisation structure.

   (b) The contingency approach.

   (20 markah/*marks*)

3. "Pendekatan sistem ialah satu cara pemikiran tentang pembolehubah dan perhubungan organisasi. Manakala pandangan kontingensi menyediakan saru kerangka untuk melakukan sesuatu yang betul pada masa yang tepat dengan cara yang betul, bergantung kepada situasi"

Bincangkan persamaan dan perbezaan kedua-dua pendekatan ini dan bagaimanakah kedua-dua pandangan ini diaplikasikan dalam industri pembinaan.

System theory is a concept about variables and their organizational relationship. However, contingency theory provides a framework to do the right thing using the right method based on the situation.

Discuss the similarities and differences between these two approaches and how these concepts can be applied to the construction industry.

(20 markah/*marks*)

4. (a) Berikan **Dua (2)** definisi motivasi.

(b) Huraikan mana-mana **Dua (2)** model motivasi berikut beserta lakaran rajah dan bagaimana ianya dapat diaplikasikan dalam industri pembinaan.

(i) Herberg's Two Factors Theory

(ii) Reinforcement Theory

(iii) Douglas McGregor – Theory X dan Theory Y

(iv) Abraham Maslow – Maslow's Hierarchy of Needs Theory

*(a) Give **Two (2)** definitions of motivation.*

*(b) Discuss any **Two (2)** motivation models with diagram and how these models can be applied in the construction industry.*

(i) Herberg's Two Factors Theory

(ii) Reinforcement Theory

(iii) Douglas McGregor – Theory X dan Theory Y

(iv) Abraham Maslow – Maslow's Hierarchy of Needs Theory

(20 markah/*marks*)

BAHAGIAN B
SECTION B

5. Sediakan Jadual Aliran Tunai dan Keluk Kos Masa berdasarkan maklumat projek yang berikut:-

Harga Tender	:	200,000.00
Kos Binaan	:	150,000.00
Tempoh Projek	:	16 bulan
Nilai Simpanan	:	5%
Tempoh membaiki kecacatan	:	6 bulan

Andaikan keuntungan diagih sama rata sepanjang tempoh projek dan bayaran kemajuan dibayar sebulan selepas tuntutan.

Based on the following project information, prepare a Cash Flow Table and Time-Cost Curve:-

Tender Price	:	*200,000.00*
Construction Cost	:	*150,000.00*
Project Duration	:	*16 months*
Retention Sum	:	*5%*
Defect Liability Period	:	*6 months*

Assume that the profit is equally distributed during the project and progress payment is paid a month after contractor submit his claim.

(20 markah/*marks*)

...5/-

6. Sediakan satu Carta Garisan Seimbang untuk satu skim perumahan berdasarkan butir-butir berikut:-

Prepare a Line of Balance Chart for a housing scheme based on the following information:-

Bil. ***(No)***	**Aktiviti** ***(Activities)***	**Jam Kerja/Unit** ***Manhour/unit***	**Bilangan Pekerja Setiap Aktiviti** ***(No. of Workers per activity)***
1.	Asas *(Foundation)*	Jam*(hours)* 180	6 pekerja *(workers)*
2.	Struktur *(Structure)*	Jam*(hours)* 300	8 pekerja *(workers)*
3.	DindingN *(Wall)*	Jam*(hours)* 160	5 pekerja *(workers)*
4.	Paip *(Pipe)*	Jam*(hours)* 60	3 pekerja *(workers)*
5.	Elektrik *(Electrical)*	Jam*(hours)* 60	2 pekerja *(workers)*
6.	Kemasan *(Finishing)*	Jam (*hours)* 140	4 pekerja *(workers)*

JADUAL 1*(TABLE 1)*

- bilangan unit rumah/*no. of units* = 200 unit
- kadar output/*rate of output* = 4 unit seminggu (*per week)*
- masa perantaraan/*buffer time* = 5 hari *(days)*
- masa kerja, 8 jam sehari dan 6 hari seminggu
  (*working hours, 8 hours per day and 6 days per week)*

(20 markah/*marks*)

7. **Rajah 1** menunjukkan Rangkaian Kerja untuk sebuah projek tertentu. Nombor aktiviti, jangka waktu aktiviti serta jumlah tenaga kerja yang diperlukan untuk setiap aktiviti adalah seperti yang ditunjukkan dalam **Rajah 1**. Berdasarkan kepada maklumat yang diberi:-

(a) Kira dan isikan ruang-ruang kosong dalam **Rajah 1**.

(b) Lukiskan Rajah Sumber untuk projek berkenaan berdasarkan:-

(i) Tarikh Mula Terawal.

(ii) Tarikh Mula Terakhir.

(iii) Araskan semula sumber tersebut.

Figure 1 *shows Network for a housing project. Activity number, period and total number of workers needed for every activity are as shown in* ***Figure 1****. Based on the given information:-*

(a) Calculate and fill in the empty spaces in ***Figure 1****.*

(b) Draw resource diagrams for the project based on:-

(i) Early Start Date.

(ii) Late Start Date.

(iii) Optimise the resource accordingly.

(20 markah/*marks*)

...7/-

RAJAH 1(FIGURE 1)