



UTHM
Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
SEMESTER I
SESSION 2016/2017**

TERBUKA

COURSE NAME : AVIATION ECONOMY & MANAGEMENT
COURSE CODE : BDU 30202
PROGRAMME : 3 BDC
EXAMINATION DATE : DECEMBER 2016/JANUARY 2017
DURATION : 2 HOURS
INSTRUCTION : ANSWER **FOUR (4)** QUESTIONS **ONLY**

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

- Q1** (a) Management is the process of achieving goals and objectives effectively and efficiently through and with the people.
- (i) Explain briefly the roles of efficiency and effectiveness in management.
 - (ii) Differentiate the element of Theory X and Y proposed by Douglas McGregor.
- (10 marks)
- (b) State five (5) aeronautical services provided by Fixed Based Operator.
- (5 marks)
- (c) Explain in details the related Articles in the Chicago Convention that leads to the implementation of National Sovereignty Over Airspace in the international aviation law.
- (10 marks)

- Q2** (a) Define the following managerial skills:-
- (i) Conceptual skills
 - (ii) Interpersonal skills
 - (iii) Technical skills
- (6 marks)
- (b) These data are obtained from a series of activities carried out during the execution of a simple project:

Table 1: Aircraft Preliminary Design Activities

Activity Number	Start Node	End Note	Completion time(weeks)
1	1	2	2
2	1	3	4
3	2	4	7
4	3	4	3
5	3	5	7
6	4	5	3
7	5	6	4
8	4	6	6
9	6	7	2
10	4	7	7

In addition to the above information, activity 5 can only start three weeks after the completion of activity 1.

- (i) Construct the network diagram for the data given in Table 1.
 - (ii) Find the minimum overall project completion time.
 - (iii) Calculate the float time for each activity and based on the calculation, identify the critical path.
 - (iv) Based on your answers in Q2(b)(iii), analyze the effect on the project if the completion time of activity 4 is increased by two weeks.
- (19 marks)

Q3 (a) State 3 benefits of the RNAV technology. (3 marks)

(b) Gives 2 examples for each elements in the P.A.V.E personal minimum checklist. (8 marks)

(c) Outline 4 risks that can be covered by insurance and provide related examples for each risk. (10 marks)

(d) Recommend 2 examples of safety improvements made to aircraft over the years, as the result of lessons learned from major crashes. (4 marks)

Q4 (a) State the differences between the communism and socialism. (4 marks)

(b) Calculate the total direct operating cost of a commercial transport based on Liebeck’s equation for the charge based on the values given in table 2, assuming that there are two flight crew and eight cabin crew on this flight. (16 marks)

Table 2: Detail elements in aircraft direct cost

No	Items	Quantity
1	Number of trip	3
2	Airframe weight	60 tonnes
3	Gross weight	78 tonnes
4	Number of engine	2
5	Thrust per engine	120 kN
6	Airframe cost	1 500 000 USD
7	Period	15 years
8	Residual	0.1



9	Airframe spares	0.06
10	Engine spares	0.23
11	Interest	130 000 USD
12	Block hours	4 hours

- (c) A parachute used as additional brake in jet fighter aircraft sells for \$15 and has variable costs per unit of \$11. Each unit sale therefore makes a contribution of \$4 towards the fixed costs of the business.
- (i) If the business had fixed costs of \$20,000, calculate how many units of parachutes to sell to reach the break even point?
- (ii) Based on your answers in Q5(d)(i), estimate how many units should the planned sales be.

(5 marks)

- Q5** (a) State the cost to consider in calculating the Indirect Operating Cost.

(5 marks)

- (b) Give the importance of Cost Benefit Analysis.

(3 marks)

- (c) Suggest 4 factors to consider during the Cost Benefits Analysis of a project.

(8 marks)

- (d) Based on your opinions, outline the challenges faced by the aviation industry in Malaysia for the next 10 years by giving factual examples.

(9 marks)

- END OF QUESTION -