III Semester M.B.A. in Aviation Examination, October 2011
AIRLINE ROUTE PLANNING
(January 2010 Batch) and Re-sit (July 2009 Batch)

Time : 3 Hours   Max. Marks : 80

Instructions : *Section* – ***1*** : Answer ***any 10*** questions out of ***15***
                                    *Max. marks in this Section are **30** (**3** marks for **each** right answer).*
               Section – ***2*** : Answer ***all 10*** questions.
                                    *Max. marks in this Section are **20** (**2** marks for **each** right answer).*
               Section – ***3*** : Attempt ***any 2*** out of ***3*** questions.
                                    *Max. marks in this Section are **30** (**15** marks for **each** right answer).*

SECTION – 1

Answer **any 10** out of 15 :   **(10×3=30)**

1. What are operational objectives of an airline ?

2. Explain what do the following symbols indicate and elaborate.

   a) ●   b) ▬   c) ⇄   d) ⇄   e)

3. Describe five main steps in fleet planning of an airline.

4. Explain cell model of fleet planning model.

5. What are various methods and procedures of aircraft maintenance ?

6. Describe various aircraft maintenance checks.

7. What are the advantages of manpower planning ?

8. Explain hub and spoke model.

9. Give advantages and disadvantages of hub and spoke model.

P.T.O.

10. Describe four phases of network management.

11. Describe three types of network structure.

12. Explain the following terms citing the formulae for the same.

    a) CASM b) RASM   c) Breakeven d) Passenger spill e) Recapture

13. Describe new challenges in an airline planning process.

14. What are the responsibilities of a flight despatcher ?

15. What is AOCC and what does it comprise of ?

SECTION – 2

Answer **all** the questions.   **(10×2=20)**

State whether **true** or **false** :

1. An effective route plan comprises of adaptability, flexibility and complexity.

2. Ground time or turnaround time is an important issue during fleet management.

3. Aircraft check include "A" or "B" or "C" or "D".

4. Security is a non-airport function.

5. A crew trip represents a single non stop flight.

Fill in the blanks :

6. Generally _____ airports have volatile traffic.
   a) Primary   b) Secondary

7. _____ refers to decrease in production cost per unit of output with increasing output.
   a) Economies of scale   b) Breakeven point

8. Many European hubs can be described as _____ hubs.
   a) Hinterland   b) Omni-directional

9. _____ is calculated as

(CASM × Distance × Capacity) / (RASM × Distance)

a) Breakeven point   b) Marginal cost

10. _____ is excess demand over capacity.

a) Recapture   b) Passenger spill.

SECTION − 3

Answer **any 2** out of 3 questions :   **(15×2=30)**

1. Write briefly on Southwest airline's success story elaborating on its strategies, corporate culture.

2. Prepare a Crew pattern for 30 Crew for the flight departing form BOM to HongKong via Bangkok. Flight schedule is given in the table below :

Schedule	Time
Departure from BOM	9:00 am (Mon)
Flying Time	4:30 hours
BKK Arrival	13:30
Ground Time	1:30 hours
BKK Departure Time	15:00
Flying Time	2:30 hours
HKG Arrival Time	17:30
Ground Time	2:00 hours
HKG Departure Time	19:30
Flying Time	6:00 hours
Arrival BOM Time	01:30 am (Tue)

3. Based on the following information, determine whether the Flight F1 will prefer gate 3 or gate 11.

Distance chart

Gates	To 1	2	3	4	5	6	7	8	9	10
From 3	10	40	0	30	10	40	20	50	30	60
4	40	10	30	0	40	10	50	20	60	30
10	70	40	60	30	50	20	40	10	30	0
11	50	80	40	70	30	60	20	50	10	40
14	90	60	80	50	70	40	60	30	50	20
15	70	100	60	90	50	80	40	70	30	60
17	80	100	70	90	60	80	50	70	40	60

Passenger connections from flights to various gates.

From Flight	To G_1	G_2	G_3	G_4	G_5	G_6	G_7	G_8	G_9	G_{10}
F_1	4	3	9	10	12	7	3	11	5	15

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