**Reg. No. \_\_\_\_\_\_\_\_**

**Karunya University**

**(Karunya Institute of Technology and Sciences)**

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

**Supplementary Examination - June 2011**

**Subject Title: AIRPORTS, DOCKS AND HARBOURS Time: 3 hours**

**Subject Code: 09CE234 Maximum Marks: 100**

#### **Answer ALL questions**

**PART – A (10 x 1 = 10 MARKS)**

1. What is ICAO?

2. List the three aspects mainly concerned with airport planning.

3. Define wind rose diagram.

4. Define apron.

5. What are the various systems of aircraft parking?

6. What do you mean by wind direction indicator?

7. Define natural harbour.

8. Differentiate between dry docks and wet docks.

9. Define pier.

10. Define breakwater.

**PART – B (5 x 3 = 15 MARKS)**

11. List the measures to improve the existing capacity of the airport.

12. List the important assumptions underlying for the basic runway length.

13. What are the purposes of an airport drainage system?

14. Enumerate the requirements of commercial harbour.

15. List the functions of transit shed.

**PART – C (5 x 15 = 75 MARKS)**

16. Describe the factors that influence the location of an airport.

(OR)

17. a. What are the objects for conducting the detailed surveys? (8)

b. Explain the data to be collected and applications of the details obtained in meteorological survey. (7)

18. Calculate the actual length of the runway from the following data:

Airport elevation : R.L. 100

Airport reference temperature : 28°C.

Basic length of runway : 600 m

Highest point along the length : R.L. 98.2.

Lowest point along the length : R.L. 95.2.

(OR)

19. a. Explain the two concepts of planning the terminal building. (8)

b. What are the basic requirements while deciding the site for a terminal building? (7)

20. Explain the six groups of the airport markings.

(OR)

21. Explain the components of an air traffic control networks.

[P.T.O]

22. With neat sketches explain the various types of signals used on shore and at sea.

(OR)

23. a. Explain the necessity of repair docks. (5)

b. Distinguish between natural harbour and artificial harbour and give example for each.(10)

24. Briefly discuss about selection of site and planning of harbour.

(OR)

25. a. Classify different types of breakwaters. (3)

b. Under what condition a rubble mound breakwater is preferred (4)

c. Discuss briefly the various methods of mound construction. (8)