Time : Three Hours   Max Marks : 100
ANSWER ALL QUESTIONS
Part A   (10 x 2 = 20)

1.   When does spring and neap tide occur?

2.   What is meant by littoral drift ?

3.   List the requirements of a fishing harbor

4.   What is the function of a turning basin?

5.   Why dredging is carried out in harbours?

6.   List the factors influencing the selection of a break water.

7.   What do you understand by the term 'dry dock'?

8.   What is the function of fenders in a harbour?

9.   What are the limitations of having Inland water transport facility?

10.   What do you understand by Coastal shipping?

Part B   (5 x 16 = 80)

11. a. Explain briefly the advantages of coastal shipping..

    b. Explain the environmental concerns in port construction

12. a   (i) Explain in detail the dynamic effect of wave action.

        (ii) Briefly write with a neat sketch the construction technique adopted and function of mound breakwater.

(OR)

12. b   (i) Explain briefly the advantage of mound with superstructure type of breakwater.

        (ii) Explain how coastal erosion takes place.

13. a (i) Distinguish between natural and artificial harbor and how safe anchorage could be provided in artificial harbor.

        (ii) Explain the factors that influence site selection for port construction.

(OR)

13.b (i) With neat sketches explain the function of an approach channel in a harbour.

      (ii) Explain the factors that influence planning of harbours and ports.

14.a (i) Explain briefly any two methods of breakwater mound construction

(OR)

14.b (i) Explain the types of dredging and the equipments used for the process.

15.a (i) Explain briefly the features of a dry dock with neat sketches and its functioning.

(OR)

15.b (i) Write brief note on any two of the following:
1. Dolphin
2. wharf
3. lock gates