Name : ....

Reg. No: ....

EIGHTH SEMESTER B.TECH DEGREE EXAMINATION, MAY 2012

CE 04 804 (D) – COSTAL ENGINEERING AND MARINE STRUCTURES

Time : Three Hours   Maximum : 100 Marks

(Answer all questions)

PART – A

I (a) Write a short note on man-ocean interaction.

(b) Explain briefly about small amplitude wave theory.

(c) What is meant by wave forecasting? Explain.

(d) Explain briefly about relationships among wave dimensions.

(e) Write a short note on Tsunami.

(f) Explain about Froude-Krylov force.

(g) List out the major factors influencing beach characteristics.

(h) Write a short note on breakwaters.

(8 x 5 = 40)

PART – B

II (a) Write short notes on :

(i) Mineral deposits in ocean

(ii) Effects of ocean on ecology and climate

(Or)

(b) Write a short note on integrated coastal zone management and explain its importance in detail.

III (a) Write short notes on :

(i) Solitary wave theory

(ii) Stoke's wave theory

(Or)

(b) Find the energy distribution of an irregular seaway composed of four different waves having the following characteristics:

Wave No.	1	2	3	4
Wave Length	380	170	96	61
Wave Height	3	5	4	2

IV (a) Explain in detail about reflection, refraction and diffraction of waves.

(Or)

(b) Write short notes on :

    (i)   Wave forces on vertical walls due to non-breaking waves, breaking waves and broken waves.

    (i)   Wave forces on circular cylinder in the marison and diffraction regime.

V (a) Explain the longterm and short term changes of shores and also add a short note on groynes.

<div align="center">(Or)</div>

(b) Write short notes on :

    (i)   Beach nourishment

    (ii) Littorial Drift

    (iii) Shore erosion in Kerala

<div align="right">(4 x 5 = 60)</div>

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