

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(MID SEMESTER EXAMINATION)**

**CLASS: B.TECH  
BRANCH: CIVIL**

**SEMESTER : VII  
SESSION : MO/2025**

**SUBJECT: CE423 HARBOUR AND AIRPORT ENGINEERING**

**TIME: 02 HOURS**

**FULL MARKS: 25**

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 5 marks and total 25 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates
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		CO	BL
Q.1(a)	Every port is a harbour but the reverse is not true. Justify the statement	[2] 1	2
Q.1(b)	How are the harbours classified based on location	[3] 1	1
Q.2(a)	How are spring tides and neap tides formed?	[2] 2	2
Q.2(b)	Why the patented stones are preferred to other types of breakwaters	[3] 2	2
Q.3(a)	Compare mound type breakwater with wall type breakwater (Any two points)	[2] 2	2
Q.3(b)	Write short notes on hydraulic breakwater	[3] 2	1
Q.4(a)	What is the significance of fenders in a harbour? Name the different types.	[2] 2	1
Q.4(b)	Explain the working of a ladder dredge. What are its advantages?	[3] 2	1
Q.5(a)	It is desirable to avoid fixed lights as far as possible in the lighthouse. Give reason.	[2] 2	2
Q.5(b)	What are the basic requirements of a marine signal?	[3] 2	1

:::::18/09/2025 :::::M