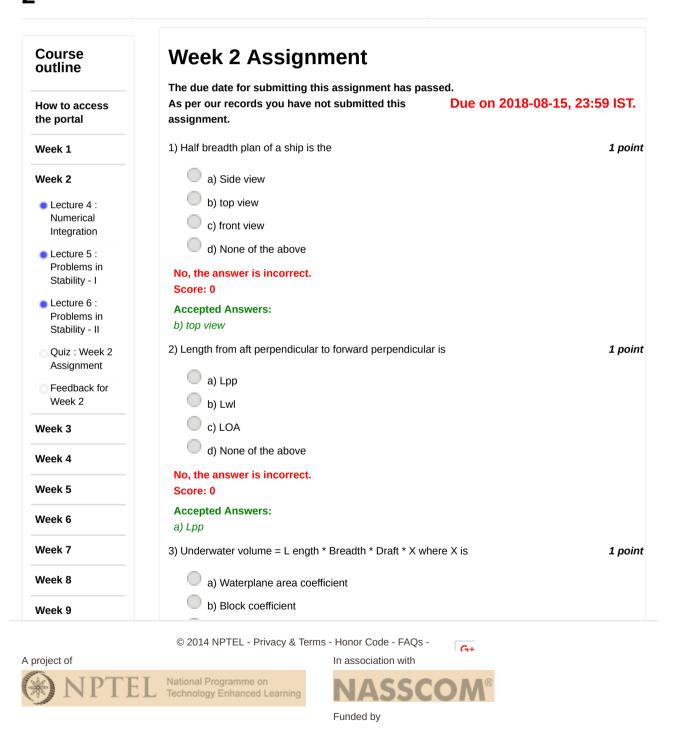X

NPTEL

reviewer3@nptel.iitm.ac.in ▼

Courses » **Hydrostatics and Stability**

Announcements   **Course**   Ask a Question   Progress   Mentor   FAQ

Unit 3 - Week 2

Course outline

How to access the portal

Week 1

Week 2

● Lecture 4 : Numerical Integration

● Lecture 5 : Problems in Stability - I

● Lecture 6 : Problems in Stability - II

○ Quiz : Week 2 Assignment

○ Feedback for Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 2 Assignment

The due date for submitting this assignment has passed.
As per our records you have not submitted this   **Due on 2018-08-15, 23:59 IST.**
assignment.

1) Half breadth plan of a ship is the   **1 point**

- ○ a) Side view
- ○ b) top view
- ○ c) front view
- ○ d) None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
b) top view

2) Length from aft perpendicular to forward perpendicular is   **1 point**

- ○ a) Lpp
- ○ b) Lwl
- ○ c) LOA
- ○ d) None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
a) Lpp

3) Underwater volume = L ength * Breadth * Draft * X where X is   **1 point**

- ○ a) Waterplane area coefficient
- ○ b) Block coefficient

Videos

Assignment Solution

Interactive Session with Students

4) By Archimedes principle, weight of floating body is   *1 point*

○ a) Weight of liquid displaced

○ b) weight of underwater volume

○ c) total volume of ship * density of water

○ d) none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
a) Weight of liquid displaced

5) Weight of liquid displaced by a floating body is   *1 point*

○ a) Underwater volume * density of liquid

○ b) underwatervolume * density of material

○ c) total volume * density of liquid

○ d) none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
*a) Underwater volume * density of liquid*

6) A floating body has square cross-section of side 1m and KG always equal to 0.5 m. What is *1 point* minimum KM for stability?

○ a) 1m

○ b) 0.5m

○ c) 0.25 m

○ d) cannot be calculated

No, the answer is incorrect.
Score: 0

Accepted Answers:
b) 0.5m

7) At what draft does minimum KM occur?   *1 point*

○ a) 0.408 m

○ b) 0.892m

○ c) 1.232m

○ d) 2.223m

No, the answer is incorrect.
Score: 0

Accepted Answers:
a) 0.408 m

8) Which of the following are numerical integration schemes?   *1 point*

○ a) Simpson's rule

○ b) Stein's rule

○ c) 5/3 rule

○ d) none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
a) Simpson's rule

9) Second moment of area of a rectangle about its longitudinal axis is   *1 point*

    a) $\dfrac{LB^3}{12}$

    b) $\dfrac{BL^3}{12}$

    c) $\dfrac{LB^3}{36}$

    d) none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
a) $\dfrac{LB^3}{12}$

10) BM of a box-shaped barge of length L, breadth B and draft T is;   *1 point*

    a) $\frac{LB^3}{12}$

    d) $\frac{B^2}{12L}$

    c) $\frac{B^2}{12T}$

    d) none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
c) $\frac{B^2}{12T}$

11) KB of the barge in question 10 would be;   *1 point*

    a) T/4

    b) T/2

    c) B/2

    d) B/4

No, the answer is incorrect.
Score: 0

Accepted Answers:
b) T/2

12) For the vessel in Question 10, the KM is minimum when   *1 point*

    a) T=B

$$T = \frac{L}{\sqrt{6}}$$
b)

$$T = \frac{B}{\sqrt{3}}$$
c)

$$T = \frac{B}{\sqrt{6}}$$
d)

No, the answer is incorrect.
Score: 0

Accepted Answers:

$$T = \frac{B}{\sqrt{6}}$$
d)

13) A box shaped vessel of length 200m, breadth 20 m and depth 10m is loaded so that the KG **1 point** of the vessel is always equal to its draft. What is the maximum draft at which the vessel will be stable?

- a) 20.45m
- b) 10.23m
- c) 8.16 m
- d) none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
c) 8.16 m

14) In Question 13 what is the GM at this condition?   **1 point**

- a) 2.3 m
- b) 0
- c) 1.2 m
- d) none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
b) 0

15) Which of the following is NOT a type of equilibrium?   **1 point**

- a) Neutral
- b) Stable
- c) Unstable
- d) initial

No, the answer is incorrect.
Score: 0

Accepted Answers:
d) initial

Previous Page

End