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Courses » Hydrostatics and Stability

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Unit 7 - Week 6

Course outline

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Week 6 Assignment

The due date for submitting this assignment has passed.

As per our records you have not submitted this assignment. **Due on 2018-09-12, 00:00 IST.**

1) Which of the following does NOT cause heeling of the ship? **1 point**

- a) Wind
- b) turning
- c) shifting of weights
- d) trimming

No, the answer is incorrect.

Score: 0

Accepted Answers:

d) trimming

2) The resistance from water against the heeling due to ship can be assumed to act at **1 point**

- a) Center of gravity
- b) center of buoyancy
- c) midship
- d) none of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

b) center of buoyancy

3) If the ship heels an angle φ due to wind, the heeling lever is proportional to **1 point**

-
- a) $\cos\varphi$

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Score: 0

Accepted Answers:

b) $\cos^2 \varphi$ 4) When the ship is turning a circle, the centrifugal force developed can be assumed to act at **1 point**

- a) Center of gravity
- b) center of buoyancy
- c) midship
- d) none of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) Center of gravity

5) If the ship heels an angle φ while turning a circle, the heeling lever is proportional to **1 point**

- a) $\cos \varphi$
- b) $\cos^2 \varphi$
- c) $\tan \varphi$
- d) constant

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) $\cos \varphi$ 6) When a ship turns with a linear speed V , in a circle of radius R_{TC} , a centrifugal force, F_{TC} , develops. $F_{TC} =$ **1 point**

- a) $\Delta \frac{V^2}{R_{TC}}$
- b) $\Delta \frac{V}{R_{TC}}$
- c) Δg
- d) none of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) $\Delta \frac{V^2}{R_{TC}}$ 7) A ship heels that an angle of φ such that area under the heeling arm curve is equal to **1 point**

- a) Sail area
- b) area under righting arm curve
- c) wetted surface area
- d) none of the

No, the answer is incorrect.

Score: 0

Accepted Answers:

b) area under righting arm curve

8) At the position of stable equilibrium, which of the following is minimum

1 point

- a) Potential energy
- b) kinetic energy
- c) pressure
- d) momentum

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) Potential energy

9) In a GZ curve with the wind heeling arm superposed, how many points of equilibrium are there?

1 point

- a) Three
- b) one
- c) two
- d) four

No, the answer is incorrect.

Score: 0

Accepted Answers:

c) two

10) In Question 9, the first point of equilibrium is

1 point

- a) Stable
- b) unstable
- c) neutral
- d) all the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) Stable

11) Pressure corresponding to a wind speed of 70 knots assuming an aerodynamic resistance coefficient equal to 1.2, and an air density equal to

1.27 kgm^{-3} is

1 point

- a) 128.99
- b) 326.26
- c) 988
- d) none of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

c) 988

12) Which of the following does NOT shift due to grains shifting?

1 point

- a) KG

- b) GM
- c) KM
- d) all the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

c) KM

13) In intact stability requirements, it is assumed that the heel due to shift of grains shall not be **1 point** greater than

- a) 12 degrees
- b) 23 degrees
- c) 19 degrees
- d) 0 degree

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) 12 degrees

14) Angle of heel at which openings in hull, superstructures or deck houses, which cannot be **1 point** closed weather tight immerse is called

- a) Angle of flooding
- b) Angle of heeling
- c) critical angle
- d) none of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) Angle of flooding

15) The heeling moment associated with shift of grains in a ship is called **1 point**

- a) volumetric heeling moment
- b) righting moment
- c) light ship heeling moment
- d) none of the above

No, the answer is incorrect.

Score: 0

Accepted Answers:

a) volumetric heeling moment

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