**Assignment 6**

1. Which of the following does NOT cause heeling of the ship?
2. Wind b)turning c)shifting of weights d)trimming
3. The resistance from water against the heeling due to ship can be assumed to act at
4. Center of gravity b) center of buoyancy c)midship d) none of the above
5. If the ship heels an angle φ due to wind, the heeling lever is proportional to
6. cos φ b)cos2 φ c)tan φ d)constant
7. When the ship is turning a circle, the centrifugal force developed can be assumed to act at
8. Center of gravity b) center of buoyancy c)midship d) none of the above
9. If the ship heels an angle φ while turning a circle, the heeling lever is proportional to
10. cos φ b)cos2 φ c)tan φ d)constant
11. When a ship turns with a linear speed V, in a circle of radius RTC, a centrifugal force, FTC, develops. FTC =
12.  b)  c)Δg d)none of the above
13. A ship heels that an angle of φ such that area under the heeling arm curve is equal to
14. Sail area b) area under righting arm curve c) wetted surface area d) none of the above
15. At the position of stable equilibrium, which of the following is minimum
16. Potential energy b)kinetic energy c)pressure d)momentum
17. In a GZ curve with the wind heeling arm superposed, how many points of equilibrium are there?
18. Three b)one c)two d)four
19. In Question 9, the first point of equilibrium is
20. Stable b) unstable c)neutral d)all the above
21. 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 kg m−3 is

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

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

a) KG b)GM c) KM d) all the above

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

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

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

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

15. In wall sided vessels, when GZ=0 then

a)tan φ =  b) )tan φ =  c) tanφ=  d)none of the above