

INDIAN MARITIME UNIVERSITY
(A Central University, Govt. of India)
May/June 2018 End Semester Examinations
DNS (Diploma in Nautical Science)
Semester II
Ship construction & ship stability (UD11T2204)

Date: 07.06.2018

Max.Marks: 70

Time: 2 Hrs

Pass Marks: 35

Attempt any 3 questions. All questions carry equal marks

SECTION A

1. Sketch the profile view of an any ship. (10 marks)
2. Sketch and explain the following. (5 X 2 marks)
a) Frames b) beams c) floors of DB d) coamings e) bulwarks
3. Sketch and label longitudinally framed double bottom tank. (10 marks)
4. Sketch and label the mooring arrangement of ship. (10 marks)

Section B

Attempt any 4 questions. All questions carry equal marks

5. Explain the following. (5 x 2 marks)
a) Centre of buoyancy b) Free surface effect c) List d) Trim
e) Metacentre
- 6) Explain the various states of equilibrium. (10 marks)
- 7) A ship of 10000 t displacement has a GM of 0.4 m. Calculate the moment of Statical stability when she is heeled by 5 degree. (10 marks)

8) On a vessel of 5000 t displacement, KM 7.8 m, KG 7.0 m, no.2 port DB tank is partly full of FW. If this tank is 15 m long and 9 m broad, find the fluid GM. (10 marks)

9) A ship displaces 4950 t and has KG 4.85 m, KM 5.79 m. Cargo weighing 50 t is loaded 1.25 m above the keel and 4 m to port of the centre line. Find the list. (10 marks)
