



3) Answer the following questions with regard to PSC inspections.

- a) Describe the objective of PSC inspections (05 marks)
- b) What is the usual procedure of selecting ships for PSC inspection? (05 marks)
- c) Describe the three types of PSC inspections (10 marks)
- d) As per PSC inspection procedures what do you understand by the CLEAR GROUNDS for detailed inspection? Describe your answer with suitable examples (10 marks)

4) a) Analyze the following deviations and determine the values of the approximate coefficients:

N	NE	E	SE	S	SW	W	NW
8° W	3° E	7° E	6° E	8° E	7° E	3° W	12° E

- (05 marks)
- b) With the aid of sketches suggest your corrections to minimize above. (05 marks)
- c) Illustrate in a sketch the basic construction of a magnetic compass bowl. (04 marks)
- d) Explain on what occasions should a ship's magnetic compass needs examination and be adjusted. (04 marks)
- e) Explain with the aid of a block diagram what you understand by Transmitting Magnetic Compass System (TMC). (04 marks)
- f) Indicate in sketched curves, the deviations per its respective coefficient as given below:

COEF = DEV

- A = + 2° E
- B = (-) 3° W
- C = (+) 2° E
- D = (-) 4° W
- E = (+) 4° E

(You may request for graph paper)

(08 marks)

- 5) You are the Master on a 2800 TEUs container vessel with Maximum draft of 12.1 m and on a passage from Sihanoukville, Cambodia to Taichung, Taiwan. Your Charterers request you to proceed at full speed to Taiwan to catch the berthing window on arrival as they are competing with another vessel. Delay in ETA may cause vessel to delay in berthing over 1 day. At present you are making 17 kts as per the instructions from Taichung, Charterer's Agent.

You received TRS (Krosa) warning on 26<sup>th</sup> October 2015, 0800 UTC with 72 hour forecast positions, moving westward.

On 27<sup>th</sup> October 2015 morning you observe that your vessel 1100 miles away from TRS, Krosa. TRS Krosa moving approximately at a speed of 15-16 kts.

Upon departure Sihanoukville vessel draft was 10.9 m and GM was 1.06 m.



- Evaluate and justify your actions with respect to probable movement of the Tropical cyclone. (20 Marks)
- Explain heavy weather precautions that you will adapt to improve the vessel's condition to withstand heavy weather situation. (15 Marks)
- Briefly explain Parametric rolling and Synchronous rolling due to heavy swell and your actions to overcome these dangerous situations. (10 Marks)
- On 30<sup>th</sup> October 2015, morning upon clearing heavy weather conditions, during inspection of container lashings Bosun reported that he observed IMDG container at Bay no. 6, is leaking due to heavy weather damage and some spillage on the deck. Explain your actions in detail. (15 marks)