

THE HONG KONG POLYTECHNIC UNIVERSITYDEPARTMENT OF MARITIME STUDIES*Marking Scheme*

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Course : Post experience Diploma in Ship Command  
Subject : Passage Planning  
Class : Part A  
Session : 1996-97  
Date : 18 December 1996  
Time allowed : 2 ½ hours ( 0930 - 1200)

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Instruction to Candidates : Attempt ALL questions in Part A.  
Attempt ANY TWO questions in Part B.

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Available from Invigilator : Ship's particulars of "M.V. Containership"  
Manoeuvring diagram of "M.V. Containership"  
Sailing Direction NP28  
Charts BA1872, BA325  
Admiralty Tide Table (abstract)  
Admiralty List of Lights and Fog Signals (abstract)  
Admiralty List of Radio Signals (abstract)  
Model Bridge Notebook blank Form

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**Appraisal**

1	Relevant information on charts used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Relevant information in publications used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Traffic density investigated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Navigation warnings checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Dangerous areas investigated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Conspicuous objects investigated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Tide predicted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Current and streams predicted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Visibility and wind estimated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Ownship characteristics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Charts**

1	Tracks marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Course to steering marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Path-width where necessary marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Dangers marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Conspicuous points marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Parallel index marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Speed at various location marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Point to pay extra attention to sounder marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	VHF calling point marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Clearing bearings/wheel-over points marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Ranges of conspicuous objected marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Engine orders where necessary marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Current/Streams marked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Bridge Note Book**

	Stream details	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Tide details	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Draught	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Minimum UKC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Bridge/Deck team tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Navigational Aids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Navigational methods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Alternative route/anchoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	CPA of conspicuous points	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	True Bearing of leading light	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Clearing bearing/wheel-over points	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Drift/leeway angle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Speed at various position	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Points to pay extra attention to sounder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	VHF calling in points	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Position disembarkation of pilot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Distance and steaming time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Shipping Safety**

	The overall plan aids safe navigation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Speed at various position allowed for possible squat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Route adopted conformed to recommendations/good seamanship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Position fixing at relevant intervals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Effective method used for monitoring ground track	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Permissible deviation aids safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Contingency planned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Proper selection of navigation aids	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The plan assure proper bridge organisation/teamwork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	The plan highlighted critical part(s) and precautions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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SC005

Part B-1

Maximum of 15 marks will be given to a paper in which factors affecting the safety of navigation during the passage through the One Fathom Bank are stated satisfactory. These factors should include, but not limited to, following:

- the reliability of ownship navigational and controlling systems;
- the reliability of charted and published information available;
- the likelihood of encountering heavy traffic and another deep draught vessel during the passage especially at critical parts;
- tide and current condition during the passage;
- the availability of reliable position fixing and crossing checking systems;
- the availability of safe navigable water and sea-room to manoeuvre;
- the availability of safe port and water in case of emergency;
- ...

Maximum of 12 marks will be given to a paper in which factors affecting the safety of navigation similar to captioned list are evidenced but not stated in text of the answer.

Part B-3

Maximum of 15 marks will be given to a paper in which objectives aiming to be achieved in a plan for coastal navigation are stated satisfactory. The attempt should demonstrated the awareness of primary objective of a passage planning is, regardless of whether it is a ocean passage, landfall passage, coastal passage or pilotage, safe navigation. The attempt should also shown evidences that the understanding of a coastal passage planning is differed from the one of ocean passage due to the higher demand on fore thought which aims bridge team co-operation without the level of local knowledge a pilot could provide.

SC007

Part B-1

Maximum of 15 marks will be given to a paper in which the most critical part of the passage departing from Zeebrugge is stated and reasonable counter measures are described satisfactory.

Deciding the most critical part of a passage tends to be a subjective one. However, the most critical part which stated in a paper for this passage should be one of the following:

- When a outbound vessel is passing the breakwater, there is a transition from slack water into an area very strong current may encounter. This might cause the bow of a ship swing toward down stream causing problem on control and possible grounding.
- When a vessel is navigating through the narrow dredged channel under the influences of strong current, monitoring the vessel in ensuring it is along the planned path is critical. The passage would become more critical if another vessel is approaching during the transit.
- When the vessel is leaving the narrow dredged channel joining the fairway, crossing traffic may encounter and collision avoidance action may require. These possible encounter becomes critical since the vessel is navigating in a narrow channel with strong current. And joining the fairway to its starboard side as required by COLREG may mean a crossing on the other vessel' bow is required.

Part B-2

Maximum of 15 marks will be given to a paper in which objectives aiming to be achieved in a plan for pilotage are stated satisfactory. The attempt should demonstrated the awareness of primary objective of a passage planning is, regardless of whether it is a ocean passage, landfall passage, coastal passage or pilotage, safe navigation. The attempt should also shown evidences that the understanding of a pilotage passage planning is differed from one of coastal passage due to the availability of pilot assistance. The understanding of a pilotage passage planning should include the supportive and monitoring roles of OOW to the pilot.