

Indian Maritime University
(A Central University, Govt of India)
B Sc (Nautical Science)
June 2018 End Semester Examinations
Semester-IV
UG21T3406 - Meteorology - II

Duration:3 Hrs

Max Marks:70 Marks

Date: 15.06.2018

Pass Marks:35 Marks

Note-Question number One and Two are compulsory.

Answer any five questions from remaining seven questions.

Use of Ships Weather Code Book may be allowed.

1) Code the following ships report.

(10 Marks)

Ship:3FRK,Position:27deg 35 min N 98 deg 29 min W,course made good last three hours:320 deg at 15 knots,Visibility:20Km,Wind:240 deg estimated at 16 knots,

Pressure:1026.8mb,Tendency:+6.4mb,Barograph trace:

GMT:08d06h10m.

Temperature:dry28.5degc,Wet23.0degc,Sea 20.6deg c.

Clouds:Total 6/8 of sky,Low clouds 4/8 of sky,Base

1000 metres above sea,Sc not resulting from Cu,

Dense Ns,Ci in hooks progressively invading sky,

Weather: present- precipitation near but not at

Station.Past- cloud covering more than ½ sky

Throughout and intermittent drizzle.

Sea:Period 08 seconds,height 01 metre.

Swell:From 050 deg,period 10 seconds ,height 02metres.

2) Fill in the blanks. (1x10=10 Marks)

- i)Anticyclone is an area of -----pressure surrounded by areas of ----- pressure.
- ii)Anabatic winds forms during -----time.
- iii)A permanent low over the equator is called the ITCZ or -----.
- iv)In the structure of TRS a calm central areas of lowest pressure is called the ----- or vortex.
- v)The navigable semicircle in the Northern Hemisphere is -----semicircle.
- vi)Ninety percent of the land ice in the north polar region is in -----.
- vii)On a weather map -----line is used to denote a warm front.
- viii)The boundary between two adjacent air masses is well defined by their different characteristics and is called a -----.
- ix)Under normal conditions of weather the hours of observation ,called----- hours are 00,06,12, and 18 UTC.
- x)Prognosis facsimile charts gives the predicted situation at specified ----- Time,based on the present indication.

- 3) a) Write a short note on i) Col ii)Ridge (5 marks)
b)What is Inter- tropical convergence zone? (5 marks)
- 4) a) What is warm and cold front?Describe briefly the weather associated with it? (5 marks)
b)What are the factors affecting the properties of an air mass? (5 marks)
- 5) a)Name the different categories of voluntary observing fleet. What are the equipments and publications carried on these ships? (5marks)
b)Describe the different types of weather services for shipping? (5 marks)
- 6)a)What are the different types of ice?Describe briefly. (5 marks)
b)Write a short note on the accumulation of ice on ships? (5 marks)
- 7) a)Describe briefly the origin,movement and lifespan of Tropical Revolving storm? (5 marks)
b)What are the warning signs of an approaching Tropical Revolving Storm? (5 marks)
- 8) a)What avoiding action should be taken when the approach of a Tropical Revolving storm is confirmed? (5 marks)
b)Write the comparison between Tropical Revolving storm and Temperate latitude Depression. (5 marks)
- 9) a)What are ships Performance curves?Describe briefly. (5 marks)
b) What are the factors to be considered while planning the routeing of a ship? (5 marks)