

INDIAN MARITIME UNIVERSITY

(A Central University, Government of India)

End Semester Examination December 2017

Programme Name: B. Sc (Nautical Science)

Semester: IV

Subject Name: Meteorology – II

Subject Code: UG21T2411

Date: 02.01.2018

Maximum Marks: 70

Time: 3 Hours

Pass Marks: 35

Note: Use Ship Weather Code 1982.

Question No.1 is compulsory. Attempt any Six from remaining.

(7x10 = 70 Marks.)

- Code the following weather report using the ship's weather code 1982:
Ship- VWBJ position $00^{\circ} 01' S$, $79^{\circ} 56' E$. Course made good in last 3 hours. 316°
T at 17 knots.
Visibility: 10 knots.
Wind: North westerly estimated 20 knots. Barometer pressure 1000.7mbs.
Atmospheric pressure steady same as 3 hours ago.
Temperature: Dry $26.7^{\circ} C$, Wet $22.5^{\circ} C$. Sea $21.1^{\circ} C$.
Clouds: sky partially covered, low cloud 3 okta of the sky. By spreading base 600
meters above sea, Sc formed by spreading of Cu. AC and Ci having
appearance of cumuliform tufts.
Weather: present- Thunder storm with no precipitation. Weather: past- Showers
and thunderstorm.
Sea: period 50 Sec, Height 1.5 Meters.
Swell: From 100° , period 09 Sec. Height 1.5 meters.
- Describe the following:
 - What do you mean by "western intensification" of currents?
 - What are Gyres? Describe the causes which increase the flow on the western sides of the Gyres.
- Describe the effects of ocean currents in modifying the coastal climate with suitable examples.
- How the evaporation, precipitation and influx of river water affect the horizontal distribution of salinity in the Atlantic and Pacific ocean?
- Describe the characteristics of the following currents and show it on the map
 - Falkland current
 - Labrador current
 - Kuroshio current
 - El – Nino current
- Write Short notes on:
 - Tidal bore

- b) Anatomy of a wave.
7. Every place on the earth should experience tides after 12 hours but it never happens & each day tide is delayed by 26 minutes. Why? Explain with suitable diagram.
8. Explain:
a) In which circumstances wet bulb reading may be higher than the dry bulb?
b) Why mercury is used in barometer? Give reasons.
9. Write a note on facsimile chart.
