

**INDIAN MARITIME UNIVERSITY**

**B.Sc. (NAUTICAL SCIENCE)**

**END SEMESTER EXAMINATIONS December 2017**

**SUBJECT CODE:** UG21T3304

**SUBJECT:** METEOROLOGY – I

**Date:** 11.12.2017

**TIME:** 3 HRS

**MAXIMUM MARKS:** 70

**PASS MARKS:** 35

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PLEASE READ THE INSTRUCTIONS ON PAGE.3 BEFORE ANSWERING

**Part-A (Compulsory) Q.No. 1 – 5 questions x 2 Marks = 10 Marks**

1. What is the air around the Earth called?
2. All the weather changes happen in the..... TICK THE CORRECT ANSWER
  - a. Ionosphere
  - b. Troposphere
  - c. Stratosphere
3. What does the ozone layer protect us from?
4. Define Isallobar.
5. What are the factors responsible for variation of horizontal distribution of pressure? TICK THE 3 CORRECT FACTORS
  - Air Pressure
  - Earth's rotation
  - Earth's Axis
  - Air Temperature
  - Presence of Water Vapor

**Part- B – Total 8 questions. Answer any 5 questions – 5 x 12 marks = 60 marks.**

6. Define the following
  - a) Dew Point

- b) Insolation
- c) Latent Heat
- d) Saturation
- e) Evaporation
- f) Condensation

7. Write short notes on the following

- a) Atmospheric Pressure
- b) Pressure Gradient
- c) Barometric Tendency
- d) Semi-Diurnal Variation of atmospheric pressure
- e) Semi-Diurnal Range of atmospheric pressure
- f) Isobars

8. Explain the following

- a) Beaufort Wind Scale
- b) Coriolis Force
- c) Geostrophic Wind
- d) Cyclostrophic Wind
- e) True and Apparent Wind
- f) Pressure Gradient Force

9. Explain in detail how clouds are formed and name the main types of clouds?

10. Explain in detail the different types of fog.

11. Define the following

- a) Humidity
- b) Absolute Humidity
- c) Relative Humidity
- d) Super Cooling
- e) Frost Point
- f) Spring and Neap tides

12. Define Ocean Current and write short notes on what causes Ocean Currents?

13.

- a) What is an aneroid barometer and explain the same with the help of a diagram?
- b) Write short notes on the errors of the aneroid barometer.

**INSTRUCTIONS**

- a) No short forms are permitted. For example "temp" for "temperature"
- b) For Answer to Question 2 of Section – A. Please answer as follows...

All the weather changes happen in the

- Ionosphere
- Troposphere
- Stratosphere

Then tick the correct answer.

- c) For Answer to Question 5 of Section – A. Please answer as follows...

The factors responsible for variation of horizontal distribution of pressure are

- Air Pressure
- Earth's rotation
- Earth's Axis
- Air Temperature
- Pressure of Water Vapor

Then tick the 3 correct factors