

**ACADEMIC YEAR 2023– 2024**

<b>Program</b>	<b>Year</b>	<b>Semester</b>	<b>Paper</b>
<b>DMETEOI</b>	<b>3</b>	<b>1</b>	<b>Midterm I</b>

<b>MODULE NAME:</b>	<b>Meteorology and Oceanography I</b>
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<b>MODULE CODE:</b>	<b>DMETEOI</b>	<b>EXAM DATE:</b>	<b>-11.2023</b>
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<b>TEACHER'S NAME:</b>	<b>ARIFE TUGSAN ISIACIK COLAK</b>	<b>DURATION:</b>	<b>90 min.</b>
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<b>Questions to be answered on:</b>	<b>Allowed requirements</b>	<b>Number of pages</b>
<b>Space provided on the question paper</b>	<b>Pen, Pencil &amp; Calculator</b>	<b>(Incl. Cover Page): 5</b>

**Points of Attention:**

- For each question, the maximum earned points are mentioned between brackets at the end of each question.
- Write very clearly! Answers that are not readable are not marked and do not get points!
- Make sure your answers are written to the point.
- All answers should be written **in English**.
- Write all the answers **in BLUE or BLACK pen only (NO PENCIL)**.
- Answer written in **PENCIL** will not be marked.
- Use the **pencil** only for **diagrams & graphs & drawings**.
- Show all the calculation steps in the given space.
- When finished submit the question paper, together with the answer scripts and the signed cover page to the invigilator.
- Any cheating/copying may result in an instant failing of the examination.

**FINAL MARKS**

<b>STUDENT NAME:</b>	
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<b>STUDENT ID:</b>	
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	<b>40</b>
	<b>10</b>

Number of answer scripts: .....

Invigilator: .....

Student's signature: .....

Time of receipt: .....

**ANSWER ALL QUESTIONS**

**Each test question: 2 pt.**

1. Condensation is when water turns from a
  - a. Solid to a gas
  - b. Gas to a solid
  - c. Liquid to a gas
  - d. Gas to a liquid
  
2. Evaporation is when water turns from a
  - a. Gas to a solid
  - b. Solid to a gas
  - c. Liquid to a gas
  - d. Liquid to a solid
  
3. Radiation is the transfer of thermal energy by
  - a. Electromagnetic waves
  - b. Ultraviolet radiation
  - c. The movement or circulation of a liquid or gas
  - d. Direct contact
  
4. Why is the air pressure maximum level at the Earth's surface?
  - a. Due to the pressure of oxygen
  - b. Gravity pulls gas molecules toward the surface
  - c. Because of the weight of ice crystals
  - d. Because of pollution

5. Why does air pressure and air density always decrease with increasing height above the surface?  
 Explain(4 pt.)

.....  
 .....

6. Our seasons are regulated by the amount of solar energy received at the earth's surface. This amount is determined primarily (6 pt.)

- a.....
- b. ....
- c.....

7. The difference between weather and climate is a measure of time. Weather is what conditions of the atmosphere are over a short period of time, and climate is how the atmosphere "behaves" over relatively long periods of time. Give two examples for climate and for weather each.(2 pt.)

- a.....
- b.....
- c.....

d.....

8. What are the elements of weather? (4 pt)

- |        |         |
|--------|---------|
| a..... | e. .... |
| b..... | f.....  |
| c..... | g.....  |
| d..... | h.....  |

13. The energy associated with this motion is called ....., the energy of motion.  
 .....is a measure of the average speed of the atoms and molecules.(4 pt)

14. Heat, on the is energy in the process of being transferred from one object to another because of the temperature difference between them. heat is transferred conduction, convection and radiant energy.

- a. In conduction, which is the transfer of heat by molecule- to-molecule contact, heat always flows from ..... to ..... regions..(2 pt)
- b. Convection is an important mechanism of heat transfer, as it represents the vertical movement of ..... air upward and ..... air downward (2 pt)

15. Draw the vertical structure of atmosphere (4 pt), pls write each layer name and show the temperature changes for each layer of atmosphere (4pt). ( Total 8 pt)