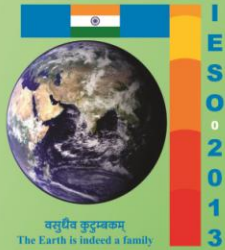






7th INTERNATIONAL EARTH SCIENCE OLYMPIAD




HYDROSPHERE 

+

ATMOSPHERE 

PRACTICAL TEST



Student's Name and Code:



Instructions:

1. Please write your name and nationality in English on the cover page.
2. The time allocated for this examination is 30 minutes.
3. Please write your answer legibly, illegible answer will be counted as incorrect.
4. Please write your answer only on this test booklet.
5. You may respond to questions in English. For objective type questions, circle the most appropriate answer.
6. Read the entire question carefully before starting to answer. Marks for each question are indicated on the right.
7. Any inappropriate examination behavior will result in disqualification.



Instruction to participants about field measurement:

1. Students will be taken to the meteorological observatory located in the Agricultural farm station at Naganahalli.
2. All participants should wear cap, non-skid shoes, T-shirt and trousers suitable for carrying out the field experiment.
3. All participants must strictly follow the instruction of the instructor.
4. Care should be taken while climbing the ladder not to slip and also mind your head not to get hurt while take the reading for wind speed
5. Initial reading for serial number 3 will be announced on the day of the test.

Measurement of the meteorological parameters

The following observations were carried out by the student:

- a) Dry bulb temperature
- b) Wet bulb temperature
- c) Wind speed
- d) Wind direction
- e) Cloud types



DATA SHEET

1. Name of the Student
2. Student Code

Serial Number	Parameter	Unit	Reading
1	Dry bulb temperature	Degree Centigrade	
2	Wet bulb temperature	Degree Centigrade	
3	Wind speed	Initial Reading=	
4	Wind direction	Degrees	
5	Cloud type		

1. Using the above data/observation answer the following questions:**Questions:****a) The wet bulb and dry bulb temperatures differ because (2 marks)**

- A. They are of different types –one is mercury thermometer, the other, resistance thermometer.
- B. Water has a higher specific heat than air.
- C. Air has a higher specific heat than water.
- D. Water loses energy due to evaporation.



b) Circle the correct option:

(2 marks)

- A. Evaporation increases with decreasing temperature, and also with increasing humidity.
- B. Evaporation decreases with increasing temperature and humidity.
- C. Evaporation decreases with increasing wind speed and temperature.
- D. Evaporation increases with increasing wind speed and temperature.

c) What is the wind speed (m/s) and direction measured by you at the met station you visited?

3 marks

d) Circle the types of cloud that were observed by you at the met station you visited?

2 marks

- A. Cumulus
- B. Cirrus
- C. Stratus
- D. Nimbus
- E. Altocumulus
- F. Altostratus



- e) The water level in the evaporimeter on 5 September 2013 was 14 cm at 09:00 Hrs. There were two episodes of rain on 7th September and 10th September with rainfall of 3 cm and 5 cm respectively. If the water level in the evaporimeter was 19 cm on 11th September 2013 , 09:00 Hrs. what is the average rate of evaporation during the entire period of observation in mm/hr? **5 marks**



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3. All participants must strictly follow the instruction of the instructor.
4. Care should be taken while climbing the ladder not to slip and also mind your head not to get hurt while take the reading for wind speed

Measurement of the meteorological parameters

The following observations would be carried out by the student:

- a) Dry bulb temperature
- b) Wet bulb temperature
- c) Wind speed
- d) Wind direction
- e) Cloud types

DATA SHEET

3. Name of the Student
4. Student Code

Serial Number	Parameter	Unit	Reading
1	Dry bulb temperature	Degree Centigrade	
2	Wet bulb temperature	Degree Centigrade	
3	Wind speed	Initial Reading=	
4	Wind direction	Degrees	
5	Cloud type		

