МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
ОДЕСЬКИЙ ДЕРЖАВНИЙ ЕКОЛОГІЧНИЙ УНІВЕРСИТЕТ

МЕТОДИЧНІ ВКАЗІВКИ

для СРС та виконання контрольної роби №3

з англійської мови

для студентів ІІ курсу

заочної форми навчання

Напрям підготовки: гідрометеорологія

"Затверджено"
на засіданні робочої групи методичної
ради "Заочна та післядипломна освіта"

Одеса-2010

Методичні вказівки для СРС та виконання контрольної роботи №3 з англійської мови для студентів II курсу заочної форми навчання.
Напрям підготовки: гідрометеорологія

Укладач: Баєва В М. Одеса - ОДЕКУ, 2010 р., 30 с.

Передмова

Практичне володіння англійською мовою при заочній формі навчання означає вміння самостійно за допомогою словника читати літературу за фахом англійською мовою, знаходити корисну для роботи інформацію, а також перекладати тексти за фахом рідною мовою.

Метою запропонованих методичних вказівок для самостійної роботи студентів (СРС) та навчального матеріалу з англійської мови для студентів ІІ курсу заочної форми навчання, напрям підготовки – "гідрометеорологія" є:

– виробити у студентів навички читання та перекладу науково-технічної літератури англійською мовою за фахом;

– розвинути вміння розуміти зміст прочитаного;

– виробити навики постановки запитань до тексту англійською мовою;

– підготовити студентів до складання заліку з англійської мови.

Після вивчення методичних вказівок, виконання практичних завдань та контрольних робіт, студенти повинні вміти читати та перекладати науково-технічну літературу англійською мовою за фахом «гідрометеорологія», розуміти зміст прочитаного, вміти ставити та відповідати на запитання до іншомовного тексту, брати участь в бесіді за фахом.

Навчальна програма для студентів ІІ курсу заочної форми навчання розрахована на 80 годин СРС та на 6 години аудиторної роботи.

Контрольна робота №3 для студентів ІІ курсу заочної форми навчання, напрям підготовки «гідрометеорологія» складається з 8 варіантів.

Кожний варіант містить у собі переклад оригіналу фахового тексту, переклад спеціальної термінології зі змістом даного тексту, виконання завдань на закріплення лексичного матеріалу, а також граматичні завдання, які вимагають у студентів засвоєння інфінітиву, дієприкметникових зворотів і умовних речень та вміння перекладу цих граматичних структур на рідну мову.

Програма з дисципліни англійська мова для студентів ІІ курсу заочної форми навчання (напрямок - гідрометеорологія)

№ п.п	Назва теми заняття	Кіль-кість годин ауд.роб.	Кіль-кість годин СРС	Види контролю
1	Неособливі форми дієслова. Інфінитив. Форми інфінітива. Об´єктний інфінітивний зворот. Суб'ктивний інфінітивний зворот. Засоби перекладу інфінітивних зворотів.	2	26	КР№3 УО
2	Дієприкметник. Функції дієприкметників і засоби їх перекладу. Звороти: об'єктний відмінок з дієприкметником. Називний відмінок з дієприкметником. Незалежний дієприкметниковий зворот.	2	28	КР№3 УО
3	Умовні речення. Умовні речення І типу. Умовні речення ІІ типу. Умовні речення ІІІ типу.	2	26	КР№3 УО
	Всього	**6**	**80**	

Умовні позначення: УО — усне опитування; КР — контрольна робота.

Організація контролю знань та вмінь студента

При самостійному вивченні дисципліни «Англійська мова» контроль здійснюється за допомогою системи контролюючих заходів, що складаються з поточного та підсумкового контролю.

Модульно-накопичувальна система оцінки знань студента включає:

- систему оцінювання самостійної роботи студента (СРС) у міжсесійний період (ОМ) (контрольна робота);
- систему оцінювання СРС при проведенні практичних модулів дисципліни під час заліково-екзаменаційної сесії (ОЗЕ);
- систему накопичувальної підсумкової оцінки засвоєння студентом навчальної дисципліни (ПО).

Накопичена підсумкова оцінка засвоєння студентом заочної форми навчання навчальної дисципліни розраховується так:

ПО =0,5**ОПК** + 0,25**ОЗЕ** + 0,25**ОМ**,

де **ОПК** – кількісна оцінка (у відсотках від максимально можливої) заходу підсумкового контролю (залік); **ОЗЕ** – кількісна оцінка (у відсотках від максимально можливої) заходів контролю СРС під час проведення практичних модулів; **ОМ** – кількісна оцінка (у відсотках від максимально можливої) заходів контролю СРС у міжсесійний період.

Поточний контроль здійснюється впродовж усього навчального курсу за формами: перевірка контрольної роботи, перевірка знань та вмінь студента під час аудиторних занять на протязі заліково-екзаменаційної сесії шляхом усного опитування.

Підсумковий контроль здійснюється підчас *заліку.* Термін проведення контролюючих заходів — згідно графіка заочної форми навчання.

Оцінюється виконання завдання контрольної роботи №3 наступним чином:

• 18-20 балів— бездоганне виконання граматичних завдань, переклад тексту в контрольній роботі зроблено без суттєвих граматичних та стилістичних помилок, правильні відповіді на поставлені запитання;

• 15-17 балів — виконання граматичних завдань та переклад тексту зроблено на належному рівні, але відповіді на запитання викладача не є повними, або не є правильними;

• 12-14 балів — виконання граматичних завдань та переклад тексту зроблено у контрольній роботі виконано з помилками, відповіді на запитання викладача є неправильними;

• менш 12 балів — при виконанні контрольної роботи припущено більше 10 помилок, при відповідях на поставлені запитання припущена велика кількість помилок.

Студенти, які виконали контрольну роботу №3 та отримали за результатами перевірки не менш ніж 36 балів (60%), мають залік за контрольну роботу.

Студенти, які не отримали за контрольну роботу мінімальної кількості балів (36 балів), повинні виконати інший варіант контрольної роботи, який надається викладачем, або виправити помилки попереднього варіанту та отримати відповідну кількість балів для допуску до заліку.

Усне опитування оцінюється наступним чином:

• студент правильно переказав текст з дотриманням граматичних, стилістичних, фонетичних правил англійської мови на задану тему, а також дав правильні повні відповіді по кожній контрольній роботі — 18 — 20 балів (відмінно);

• студент переказав текст з деякими граматичними, стилістичними та фонетичними помилками та не дав повні відповіді на запитання — 15-17 балів (добре);

• студент переказав текст з суттєвими граматичними, стилістичними, фонетичними помилками і відповів лише на базові питання — 12-14 балів (задовільно);

• студент переказав текст з великою кількістю граматичних, стилістичних, фонетичних помилок і не зміг відповісти на базові питання — менше 12 балів (незадовільно).

Залік складається з суми балів **КР**+**УО** (**>60%**--не зараховано, **≥60%** -- зараховано)

КОНТРОЛЬНА РОБОТА №3

ВАРІАНТ №1

І. Зробіть письмовий переклад тексту:

Text PRECIPITATION

In meteorology, *precipitation* (also known as one of the classes of hydrometeors, which are atmospheric water phenomena) is any product of the condensation of atmospheric water vapour that is deposited on the earth‘s surface. It occurs when the atmosphere, a large gaseous solution, becomes saturated with water vapour and the water condenses and falls out of solution (i.e., precipitates). Two processes, possibly acting together, can lead to air becoming saturated: cooling the air or adding water vapour to the air.

Precipitation that reaches the surface of the earth can occur in many different forms, including rain, freezing rain, drizzle, snow, ice pellets, and hail. Virga is precipitation that begins falling to the earth but evaporates before reaching the surface. Precipitation is a major component of the water cycle, and is responsible for depositing most of the fresh water on the planet. Approximately 505,000 km^3 (121,000 cu mi) of water falls as precipitation each year, 398,000 km^3 (95,000 cu mi) of it over the ocean. Given the Earth’s surface area, that means the globally-averaged annual precipitation is about 1 m (39 in), and the average annual precipitation over oceans is about 1.1 m (43 in).

The phenomenon may occur on other celestial bodies, e.g. when it gets cold, Mars has precipitation which most likely takes the form of frost, rather than rain or snow.

Precipitation can be divided into three categories, based on whether it falls as liquid water, liquid water that freezes on contact with the surface, or ice. Each of these categories can be further subdivided:

1. Liquid precipitation:
   - Drizzle (DZ)
   - Rain (RA)
2. Freezing precipitation:
   - Freezing drizzle (FZDZ)
   - Freezing rain (FZRA)
3. Frozen precipitation:
   - Snow (SN)
   - Snow grain (SG)
   - Ice pellets (PL)

- Hail (GR)
- Snow pellets/ Graupel (GS)

The capital letters in the parentheses are the codes for each phenomenon. Mixtures of different types of precipitation, including types in different categories, can fall simultaneously.

How air becomes saturated

Air contains water vapour, measured in grams of water per kilogram of dry air (g/kg), but most commonly reported as a relative humidity. How much water vapour a parcel of air can contain before it becomes saturated (100% relative humidity) depends on becoming saturated. Therefore, one way to saturate a parcel of air is to cool it. The dew point is the temperature to which a parcel must be cooled in order to become saturated.

There are four main mechanisms for cooling the air to its dew point: adiabatic cooling, conductive cooling, radiational cooling, and evaporative cooling. Adiabatic cooling occurs when air rises. The air can rise due to convection, large-scale atmospheric motions, or a physical barrier such as a mountain (orographic lift). Conductive cooling occurs when the air comes into contact with a colder surface, usually by being blown from one surface to another, for example from a liquid water surface to colder land. Radiational cooling occurs due to the emission of infrared radiation, either by the air or by the surface underneath. Evaporative cooling occurs when energy from the air is used to evaporate water; this is most effective when dry air blows over a wet surface.

The other way to saturate an air parcel is to add water vapour. This can occur when the air parcel is at ground level and water vapour is added by evaporation or transpiration. Combined this is known as evapotranspiration. Evapotranspiration also acts to warm the air parcel. This is because only the higher-energy water moleculas can escape the liquid water's surface tension, and this transfer of energy acts both to cool the evaporating surface and to warm the overlaying air.

The main ways water vapour is added to the air are:

- Precipitation falling from above (e.g. stratus forming in the rain under a higher cloud)
- Daytime heating evaporating water from the surface of oceans, water bodies or wet land
- Transpiration from plants
- Drier are moving over open water (e.g. Lake effect snow off the Great Lakes in winter).

II. Дайте письмову відповідь на такі запитання:

1. What is precipitation ?
2. What are the forms of precipitation ?
3. What is the dew point ?
4. When does adiabatic cooling occur ?
5. When does conducting cooling occur ?
6. When does radiational cooling occur ?

III. Перепишіть та письмово перекладіть інфінітивні конструкції, об'єктивний та суб'єктивний інфінітивні звороти:

1. The observed wind is considered to be the representation of the north-westerly wind that existed along the coast.
2. To investigate the nature of the air flow in the vicinity of these sources of discontinuity is very important.
3. High temperatures, strong wind, low humidity and low pressure are believed to aid evaporation and visa versa.
4. Antarctic weather seems not to have a different influence on Australian weather.
5. The vertical distribution of ozone is likely to be valuable in the study of stratospheric circulation using ozone as a tracer.
6. We didn't know the forecaster to form an opinion as to the probable duration of rain.
7. Such cloud was not expected to form over any land areas as the front moved slowly eastward.
8. To reduce surface temperature to see level when estimating the intensity of a frost is of great importance.
9. For a cloud to form, the air must first become saturated with respect to water.
10. Winds tend to blow from areas of high pressure to regions of low pressure.

IV. Перепишіть та письмово перекладіть речення, звертаючи увагу на відмінність у перекладі залежного та незалежного дієприкметникових зворотів:

1. Considering the atmosphere, we find that unstable conditions occur every day and every hour.
2. Observed data may be plotted on cross-section paper and a smooth curve may be drawn connecting the observed points.
3. The diurnal variations of relative humidity is determined by absolute humidity and temperature, the latter being the controlling factor.

4. A great number of thunderstorms occurred at island station, three being observed in the vicinity of our station and no less than light were observed by some other stations.
5. If the slope is covered with snow or ice , the descending air is strongly cooled and may attain a considerable speed.
6. In valleys into which the cold air blows, the surface winds often bear no relation to the pressure gradient, the upper wind gliding over the cold air without disturbing it.
7. An artificial satellite moving in a circular orbit at a given altitude must have a definite speed.
8. Beginning some experiment one should be very careful and attentive.
9. A fog considering of ice crystals is called ice fog.
10. While heating a substance we cause a more rapid motion of its molecules.

V. Письмово перекладіть різні типи умовних речень. Зверніть увагу на сполучники, які представлені умовними реченнями:

1. I shall not go out tomorrow if the weather is bad.
2. We could do this work in case we got the necessary instructions.
3. They would have stayed in town, unless the weather had been warm.
4. If the dew point passed, condensation would begin.
5. Were it not for the protective ozone layers, life upon the earth might have been impossible.
6. Had the air contained only very small dust particles, condensation would have been delayed.
7. If the outgoing terrestrial radiation were greater than the incoming solar radiation, the earth would become progressively colder.
8. If the atmosphere were totally transparent to the terrestrial radiation, the heat would go directly out into space, uninfluenced by the presence of the atmosphere.

ВАРІАНТ №2

І. Зробіть письмовий переклад тексту:

Text **HOW PRECIPITATION FORMS**

Condensation and coalescence are important parts of the water cycle

Condensation

Precipitation begins forming when warm, moist air rises. As the air cools, water vapour begins to condense on condensation nuclei, forming clouds. After the water droplets grow large enough, two processes can occur to form precipitation.

Coalescence

Coalescence occurs when water droplets fuse to create larger water droplets, or when water droplets freeze onto an ice crystal. Air resistance typically causes the water droplets in a cloud to remain stationary. When air turbulence occurs, water droplets collide, producing larger droplets. As these larger water droplets descend, coalescence continues, so that drops become heavy enough to overcome air resistance and fall as rain. Coalescence generally happens most often in clouds above freezing.

Bergeron process

The Bergeron process occurs when ice crystals acquire water molecules from nearby supercooled water droplets. As these ice crystals gain enough mass, they begin to fall. This generally requires more mass that coalescence when occurring between the crystal and neighboring water droplets. This process is temperature dependent, as supercooled water droplets only exist in a cloud that is below freezing. In addition, because of the great temperature difference between cloud and ground level, these ice crystals may melt as they fall and become rain.

Causes of precipitation

Frontal activity

Stratiform or dynamic precipitation occurs as a consequence of slow (cm/s) ascent of air in synoptic systems, such as along cold fronts, and in advance of warm fronts. Similar ascent is seen around tropical cyclones outside of the eyewall, and in comma head precipitation patterns around mid-latitude cyclones.

Convection

Convection rain or showery precipitation occurs from convective clouds e.g., cumulonimbus or cumulus congestus. It falls as showers with rapidly

changing intensity. Convective precipitation falls over a certain area for a relatively short time, as convective clouds have limited horizontal extent. Most precipitation in the tropics appears to be convective; however, it has been suggested that stratiform precipitation also occurs. Graupel and hail always indicate convection. In mid-latitudes, convective precipitation is associated with cold fronts (often behind the front), squall lines, and warm fronts in very moist air.

Orpgraphic effects

Orographic precipitation

Orographic precipitation occurs on the windward side of mountains and is caised by the rising air motion of a large-scale flow of moist air across the mountain ridge, resulting in adiabatic cooling and condensation.

In mountainous parts of the world subjected to relatively consistent winds (for example, the trade winds), a more moist climate usually prevails on the windward side of a mountain than on the leeward (downwind) side. Moisture is removed by orographic lift, leaving drier air (see katabatic wind) on the descending (generally warming), leeward side where a rain shadow is observed.

Orographic precipitation is well known on oceanic islands, such as the Hawaiian Islands, where much of the rainfall received on an island is on the windward side, and the leeward side tends to be quite dry, almost desertlike, by comparison. This phenomenon results in substantial local gradients of average rainfall, with coastal areas receiving on the order of 500 to 750 mm per year (20 to 30 in), and interior uplands receiving over 2.5m per year (100 in). Leeward coastal areas are especially dry 500 mm per year (20 in) at Waikiki, and the tops of moderately high uplands are especially wet -- ˜12 m per year (˜475 in) at Wai'ale'ale on Kaua'i).

In South America, the Andes mountain range blocks most of the Atlantic moisture that arrives in that continent, resulting in a desertlike climate on the Pacific coast of Peru and northern Chile, since the cold Humboldt Current ensures that the air off the Pacific is dry as well.

II. Дайте письмову відповідь на такі запитання:

1. When does water vapour begin to condense ?
2. When do coalescence and Bergeron process occur ?
3. When does convective precipitation fall ?
4. What is orographic precipitation caused by ?
5. What is the phenomenon of the Hawaiian Islands ?

III. Перепишіть та письмово перекладіть інфінітивні конструкції, об'єктивний та суб'єктивний інфінітивні звороти:

1. Orographic clouds have a strong tendency to become supercooled.
2. The ordinary method to be used for observation of wind at heights is that of sending us pilot balloons.
3. To determine the state of the atmosphere at any given point, their quantities are to be measured, viz., pressure, temperature and humidity.
4. The meteorologists considered the data of temperature to be representative for the given area.
5. We suppose the prediction of hurricanes to be limited mainly because of lack of observation from the ocean areas.
6. The air is said to be saturated if it contains all the water vapour that it can hold at the existing temperature and pressure.
7. The vertical distribution of ozone is likely to be valuable in the study of stratosphere circulation using ozone as a tracer.
8. The cold waves reaching Australia seem to originate from latitudes lower than 60^{o}S.
9. We didn't know the forecaster to form an opinion as to the probable duration of rain.
10. I didn't know the humidity condition near the coasts to depend upon whether the wind is on- or off-shore.

IV. Перепишіть та письмово перекладіть речення, звертаючи увагу на відмінність у перекладі залежного та незалежного дієприкметникових зворотів:

1. Meteorologists collect data of warm air penetrating from the Pacific Ocean to the high latitudes.
2. The work done by the Ukrainian expedition helped to understand many secrets of nature in the polar regions.
3. The wind is simply air in motion usually measured only in its horizontal component.
4. While observing the temperature of air and the speed of wind, scientists have obtained new data concerning heat exchange between the ocean.
5. The relationship between ozone deviations and frontal systems have been studied and it was shown that the low ozone values appeared in the warm sector and in the region covered by the warm front surface, the fall in ozone content often extending several hundred kilometres ahead of the surface warm front.
6. The weight of the air column depends upon its height, its temperature and its pressure, the last two factors affecting density.
7. In the high levels of the atmosphere the trade winds undergo complete reversal, the upper currents being known as the antitrades.

8. In south Africa cumulus clouds are quite often seen to form at the top of smoke column originating from a fire, and cases are on record of copious rain falling from such clouds.
9. Heated air increases in volume.

ВАРІАНТ №3

І. Зробіть письмовий переклад тексту:

Text **TROPICAL ACTIVITY**

Tropical activity in general consists of large air masses several hundred miles across with low pressure at the centre and with winds blowing around the centre in either a clockwise direction (southern hemisphere) or counterclockwise (northern hemisphere). Precipitation arises when a warm front is formed by an advancing mass of warm air, which moves up an inclined surface of retreating air and is chilled in the process of being lifted up resulting in rainfall.

The Great Sandy Desert has nearly all its rain during from monsoonal thunderstorms or the occasional tropical cyclone rain depression. Thunderstorms occur on an average of 20-30 days annually through most of the area. Although the desert has fairly high precipitation rates, this area remains an arid environment with vast areas of sands due to the high rates of evaporation.

Other areas of the world which see these rare precipitation events in deserts are northwest Mexico, the southwestern United States, and southwest Asia. In North America, the Sonoran and Chihuahuan Deserts have received some tropical rainfall in the last 10 years. Tropical activity is rare in all deserts, but what rain does arrive there is important to the existence of the delicate ecosystem.

Rainfall characteristics

Size and shape

Raindrops have sizes ranging from 0.1 to up to approximately 9 mm (0.004 to 0.4 in) mean diameter, above which they tend to break up. Smaller drops are called cloud droplets, and their shape is spherical. As a raindrop increases in size, its shape becomes more oblate, with its largest cross-section facing the oncoming airflow. Contrary to the cartoon pictures of raindrops, their shape does not resemble a teardrop.

Intensity and duration

These are usually inversely related, i.e., high intensity storms are likely to be of short duration and low intensity storms can have a long duration.

Intensity and area

We can expect a less intense rainfall over a large area than we can over a small area.

Intensity and drop size

High intensity storms have a larger drop size than low intensity storms.

Measurement of precipitation

The standard way of measuring rainfall or snowfall is the standard rain gauge, which can be found in 100-mm (4-in) plastic and 200-mm (8-in) metal varieties. The inner cylinder is filled by 25 mm (1 in) of rain, with overflow into the outer cylinder. Plastic gages will have markings on the inner cylinder down to 0.25 mm (0.01 in) resolution, which metal gages will require use of a stick designed with the appropriate 0.25 mm (0.01 in) markings. After the inner cylinder is filled, the amount inside it is discarded, then filled with the remaining rainfall in the outer cylinder until all the fluid in the outer cylinder is gone, adding to the overall total until the outer cylinder is empty. These gages are winterized by removing the funnel and inner cylinder and allowing the snow/ freezing rain to collect inside the outer cylinder. Once the snowfall/ ice is finished accumulating, or as you approach 300 mm (12 in), one can either bring it inside to melt, or use luke warm water to fill the inner cylinder with in order to melt the frozen precipitation in the outer cylinder, keeping track of the warm fluid added, which is subsequently subtracted from the overall total once all the ice/ snow is melted.

Other types of gages include the popular wedge gage (the cheapest rain gage and most fragile), the tipping bucket rain gage, and the weighing rain gage. The wedge and tipping bucket gages will have problems with snow. Attempts to compensate for snow/ ice by warming the tipping bucket meet with limited success, since snow may sublimate if the gage is kept much above freezing. Weighing gages with antifreeze should do fine with snow, but again, the funnel needs to be removed before the event begins. For those looking to measure rainfall the most inexpensively, a can that is cylindrical with straight sides will act as a rain gage if left out in the open, but its accuracy will depend on what ruler you use to measure the rain with. Any of the above rain gages can be made at home, with enough know-how.

Once someone has a device to measure precipitation, various networks exist across the United States and elsewhere where rainfall measurements can be submitted through the Internet. If a network is not available in the area where one lives, the nearest local weather office will likely be interested in the

measurement. An important use of precipitation data is for forecasting of river flows and river water quality using hydrological transport models.

II. Дайте письмову відповідь на такі запитання:

1. What does tropical activity consist of ?
2. What is the peculiarity of the Great Sandy Desert ?
3. What do the forms of droplets say about ?
4. What is the standard way of measuring rainfall ?
5. What types of rain gages are dealt with measurement of precipitation ?

III. Перепишіть та письмово перекладіть інфінітивні конструкції, об'єктивний та суб'єктивний інфінітивні звороти, які відповідають додатковим реченням:

1. The air is said to be saturated if it contains all the water vapour that it can hold at the existing temperature and pressure.
2. The meteorologists considered the data of temperature to be representative for the given area.
3. The Beaufort Scale of Wind Force is considered to be rather old for being used in meteorology.
4. We know this scientist to have been working at this problem for some years.
5. Orographic clouds are believed to cause heavy and continuous rain.
6. Meteorology is interested in the factors that are likely to affect the behavior of atmosphere.
7. The scientists working at this laboratory may be expected to continue their basic research of different meteorological phenomena.
8. We suppose the prediction of hurricanes to be limited mainly because of lack of observations from the ocean areas.
9. The thermometer is to be protected from the direct and indirect rays of the sun.
10. The composition of other planetary atmosphere was known to differ from others.

IV. Перепишіть та письмово перекладіть речення, звертаючи увагу на відмінність у перекладі залежного та незалежного дієприкметникових зворотів:

1. The cloud getting too full of moisture, the moisture falls in the form of rain, hail, etc.
2. Having communicated the weather report, the meteorologists continued to take observations.
3. The data sent by the sputnik will be compared with the data collected by ground observers.

4. There being very many forms of clouds, the classification of cloud type is rather detailed.
5. The pressure may be predicted from the surrounding pressure field with an accuracy depending upon a number of factors, the principal one being the length of the forecast period.
6. The vertical temperature gradient generally called the lapse rate is the change in temperature with altitude.
7. Having in its orbit, the satellite is periodically affected by changing thermal conditions.
8. Many airplanes are struck by lightning when flying at a level when the temperature is near freezing.
9. Sending out balloons, meteorologists obtain data about temperature, pressure, etc.
10. Being equipped with all the necessary instruments, the observers could start this work.

V. Письмово перекладіть різні типи умовних речень. Зверніть увагу на сполучники, які представлені умовними реченнями:

1. He will come to see you, provided he knows your address.
2. Had they seen you yesterday, they would have certainly told you about our plans.
3. Were it not for your help, he would not finish the work.
4. If the northern part of the Gulf Stream is warm, the winter will be warm in Europe and cold in Greenland.
5. If the air were saturated adiabatically and with constant moisture content, it would become saturated at its condensation level.
6. If a front lay along the isobars, it would remain more or less stationary.
7. Invisible water vapour may become visible if it is transformed into clouds, rain, hail, snow, sleet, dew or frost.
8. The vertical movements of the atmosphere usually pass unnoticed by most people, unless those movements are specially vigorous.
9. If convection within the cloud had become active, the minute water particles would have been carried higher up.
10. Were the atmosphere static, the steady-state activities at any latitude and altitude would be in equilibrium.

ВАРІАНТ №4

І. Зробіть письмовий переклад тексту:

Text RAINFALL

High temperature and humidity of the tropical atmosphere provide for a significant water content in tropical clouds. The clouds are so rich in water that even a small one may produce a heavy shower. Short duration, but heavy showers from single cumulonimbus clouds are a rather frequent phenomenon in the tropics. Shower-type precipitation may also fall from cloud banks and cloud congestions that may consist of different size clouds (cumulus mediocris, cumulonimbi, etc.). Precipitation in the tropics is mainly of shower type. Most lengthy precipitations are those from cloud systems related to the ITCZ (Intertropical convergence zone) and tropical cyclones.

Precipitation in the ITCZ may be of shower type or continuous lengthy (several hours) or short (2-3 minutes), very heavy or negligible. Widespread precipitation of ITCZ falls from nimbostratus or, more seldom, altostratus clouds which are characteristic of tropical troughs. Cumulonimbi clustered into extended banks produce shower rains.

In the tropics, rains most frequently fall from warm clouds consisting of non-supercooled droplets whereas extratropical rains downpour predominantly from mixed clouds. The closer to the equator the more frequent are rains from warm (droplet) clouds, although rains from mixed clouds predominate.

Consider the mechanism by which rain is formed in warm clouds. In short, it may be visualized as follows. Updrafts cool the uplifting air and make the water vapour to condense. The cloud starts rising in shape and the droplets increase in dimensions until they become rain drops. Then owing to condensation in the supersaturated bulk of the cloud and coalescence of large drops they become heavy enough to fall as precipitation.

The conditions for uplifts to develop are created in the tropics practically every day. First of all, it is the thermal convection which is supported by the convergence of winds in the boundary layer. However, when winds diverge in the lower layers the convective streams become suppressed and the convection cell cannot develop in full. Orography may also add in forming the uplifts.

ІІ. Дайте письмову відповідь на такі запитання:

1. What is a rather frequent phenomenon in the tropics ?
2. What kind of precipitation may be in ITCZ ?
3. What did the scientists study about the rainfall in the eastern Africa ?
4. What do the pilots evidence ?

III. Перепишіть та письмово перекладіть інфінітивні конструкції, об'єктивний та суб'єктивний інфінітивні звороти, які відповідають додатковим реченням:

1. Meteorology is interested in the factors that are likely to affect the behavior of atmosphere.
2. The composition of other planetary atmospheres is known to differ from ours.
3. Land and sea breezes are supposed to occur chiefly in tropical countries.
4. The purpose of this paper is to demonstrate that there is a large amount of blowing snow caused by high-surface wind velocities.
5. A basic revision in the approach to numerical weather prediction seems to have been due to a remarkable work of our scientists.
6. We didn't know the forecaster to form an opinion as to the probable duration of rain.
7. Such cloud was not expected to form over any land areas as the front moved slowly eastward.
8. A few weak cyclonic circulations appeared to form in the thermal trough.
9. The cyclonic centre is supposed to be located farther north at 17^{o}S, 149^{o}E.
10. The Antarctic cyclonic polar vortex in winter proves to be much stable than the corresponding Arctic polar vortex.

IV. Перепишіть та письмово перекладіть речення, звертаючи увагу на відмінність у перекладі залежного та незалежного дієприкметникових зворотів:

1. A great number of thunderstorms occurred at inland stations, three being observed in the vicinity of our station.
2. In the high levels of the atmosphere the trade winds undergo complete reversal, the upper currents being known as the antitrades.
3. A wind rose is a diagram showing the proportion of winds blowing from each of the main points of the compass.
4. Other conditions being equal, it is easier to draw isobars in areas where the winds are strong.
5. The threefold structure in tropopause height mentioned above will be shown by presenting series of soundings, selected according to their location.
6. Rain associated with thunderstorms affords a striking example of convectional type.
7. The distinguishing features of air masses must be looked for in the upper air.

V. Письмово перекладіть різні типи умовних речень. Зверніть увагу на сполучники, які представлені умовними реченнями:

1. If the northern part of the Gulf stream is warm, the winter will be warm in Europe and cold in Greenland.

2. If an observer faces the wind, the centre of a cyclone will bear approximately 120^{o}.
3. If the air were true tropical air it would almost certainly be saturated.
4. Had it rained without a break for two hours it should undoubtedly have been described as ‘continuous rain’.
5. If the air were saturated adiabatically and with constant moisture content, it would become saturated at its condensation level.
6. Were the atmosphere static, the steady-state activities at any latitude and altitude would be equilibrium.

ВАРІАНТ №5

І. Зробіть письмовий переклад тексту:

Text **TEMPERATURE**

Temperature of the surface air layer in the tropics is mainly governed by the radiant energy budget, though some minor influence is felt from other factors. The budget is positive over the enormous sun energy income during the year, so air in the tropics is warm. Since the radiant flux varies periodically with the astronomical factors, the temperature follows it with the certain periodicity. Non-periodical variations are seldom and insignificant.

Since the isotherms by large run so nearly parallel to the latitude circles we can average temperatures around the globe to yield a pattern of the mean temperatures of latitudinal circles. Most striking in the temperature field pattern is that the line of temperature maxima coincides (or almost coincides) with the axis of the equatorial trough and follows it in the annual variation. In January the air is warmest, near 5^{o}S, exactly the latitude of the trough, and in July it is warmest at 20^{o}N, slightly to the north. It is believed that this displacement results from the very high temperatures over the northern subtropical deserts. Besides, land masses are larger in the Northern than in the Southern Hemisphere, hence, the surface layer temperatures north of the equator are higher. Throughout the tropics the Northern Hemisphere is about 2^{o}C warmer than the Southern Hemisphere. This also increases the seasonal temperature range in the Northern Hemisphere: it amounts to 13 ^{o}C at 30^{o}N and 7 ^{o}C at 30 ^{o}S.

Mean annual temperatures are distributed symmetrically not with respect to the geographical equator but with respect to the “thermal, or heat, equator”

situated at 5°N. Annual temperature range approaches the vanishing point everywhere near the thermal equator.

The above location of the thermal equator at 5°N is largely conditional. It is only valid with latitudinal averaging of the mean annual temperature. At daily temperature charts the thermal equator is denied as a line connecting the maxima. By a similar procedure it can be traced on the maps of mean monthly temperature. On these graphs it does not coincide with any latitude, rather, it is a wandering curve which goes poleward over the land areas in the summer hemisphere and near the geographic equator over the oceans.

II. Дайте письмову відповідь на такі запитання:

1. What can you say about the radiant energy budget in tropics ?
2. What is the most striking in the temperature field pattern ?
3. How are mean annual temperatures distributed ?
4. How is the thermal equator defined ?

III. Перепишіть та письмово перекладіть інфінітивні конструкції, об'єктивний та суб'єктивний інфінітивні звороти, які відповідають додатковим реченням:

1. It is necessary to collect much material for an accurate meteorological chart.
2. The proportion to be maintained between actual distances and the distances represented on the chart must be known before producing a chart.
3. The scientists working at this laboratory may be expected to continue their basic research of different oceanographic and meteorological phenomena.
4. In summer the prevailing wind of the Arctic appears to be light north-easterly while in winter the south-westerlies of the North Atlantic penetrate at times to the Arctic Basin between Greenland and Spitsbergen.
5. The composition of other planetary atmospheres is known to differ from ours.
6. Land and sea breezes are supposed to occur chiefly in tropical countries where the solar heating is powerful.
7. Antarctic weather seems not to have a direct influence on Australian weather.
8. A few weak cyclonic circulations appeared to form in the thermal trough.
9. The final test is to compare the readings at atmospheric pressure before and after the low-pressure test.
10. The scientists consider the periods of greater aridity to have occurred in the anticyclonic subtropical belt.

IV. Перепишіть та письмово перекладіть речення, звертаючи увагу на відмінність у перекладі залежного та незалежного дієприкметникових зворотів:

1. Waves set up by the wind pass on to great distances, the length and speed of travel remaining the same, the height diminishing as they proceed.
2. The water flowing into the Mediterranean from the Atlantic has a mean salinity of 36.25‰ while that following out of the Mediterranean into the Atlantic has a mean salinity of 37.75‰.
3. In the high levels of the atmosphere the trade winds undergo complete reversal, the upper currents being known as the antitrades.
4. Observed data may be plotted on cross-section paper and a smooth curve may be drawn connecting the observed points.
5. If the slope is covered with snow or ice, the descending air is strongly cooled and may attain a considerable speed.
6. When coming into contact with the stable layer, the vertical currents spread out their products of condensation below this layer and the result is a more or less thick stratocumulus or flattened is dated cumulus called trade-wind cumulus.
7. Considering the atmosphere, we find that unstable conditions occur every day and every hour.
8. On some occasions the clouds are clearly limited in extent, their boundaries not being determined simply by the border of the earth's shadow.
9. Heated air increases in volume.
10. Warm frontal characteristics were much the same for the coastal stations, the fronts being too shallow in most cases to give typical weather sequences.

V. Письмово перекладіть різні типи умовних речень. Зверніть увагу на сполучники, які представлені умовними реченнями:

1. If the northern part of the Gulf Stream is warm, the winter will be warm in Europe and cold in Greenland, the difference being more pronounced the warmer the Gulf Stream is.
2. If an observer faces the wind, the centre of a cyclone will bear approximately 120^{o}.
3. Provided the force of the gradient wind in any synoptic situation could be correctly determined, comparison with the values given in this table would show whether such winds were above or below normal.
4. Had it rained without a break for two hours, it should undoubtedly have been described as 'continuous rain'.
5. If the convection within the cloud had become active the minute water particles would have been carried higher up.
6. Were the atmosphere static, the steady-state activities at any latitude and altitude would be in equilibrium.

7. If a front lies along the isobars, it will remain more or less stationary.
8. Unless one carried out a great number of observations, it would be extremely difficult to come to a certain conclusion concerning the factors influencing the weather.
9. If the air were true tropical air, it would almost certainly be saturated.

ВАРІАНТ №6

І. Зробіть письмовий переклад тексту:

Text **PRESSURE**

Gradual pressure drop from the subtropics to the equator is characteristic of the tropical region. The subtropical highs go round the globe both south and north of the equator. They migrate equatorward in winter and poleward in summer. In the Northern Hemisphere this seasonal displacement is more pronounced than in the Southern Hemisphere. Besides in the Southern Hemisphere the high pressure belt situates closer to the equator that in the Northern Hemisphere.

Between the high pressure belts in the equatorial region there as a low pressure area -- so called equatorial depression or equatorial trough. In the annual mean, the trough is centered near 5 ^{o}N, that is, it coincides with annual temperature maxima. It does not remain on the same latitude during the year shifting southmost in January and northmost in July. It is readily seen that pressure is higher in the winter than in the summer hemisphere. From the mean pressure charts the pressure gradients become weaker as the distance to the equator is smaller and reach their minimum value near the equator. The lowest values amount to tenth fractions of a millibar per 100 km and in some situation they are zero very nearly. Obviously, it places stringent requirements upon the accuracy of pressure measurements near the equator.

As in the middle latitudes, the pressure in the tropics does not remain constant through the year. Its variation sums up of both periodical and nonperiodical changes. The latter are most weakly expressed, their influence becomes more substantial at periods of greatest cyclonic activity in the tropics.

Periodical character of the pressure in the tropics is more pronounced than in the middle latitudes. However, throughout the tropics its magnitude varies in time and space. More elaborate analysis puts into a forefront the semidiurnal,

diurnal and five-day pressure oscillations. So far, the origin of these waves has not found its rigorous physical interpretation.

II. Дайте письмову відповідь на такі запитання:

1. What is the characteristic of the tropical region ?
2. Where is the seasonal displacement more pronounced ?
3. What can you see from the mean pressure charts ?
4. The pressure in the tropics doesn't remain constant through the year, does it?
5. What waves haven't found its rigorous physical interpretation ?

III. Перепишіть та письмово перекладіть інфінітивні конструкції, об'єктивний та суб'єктивний інфінітивні звороти, які відповідають додатковим реченням:

1. It is necessary to double the scale in order to be sure that no dangers remained undetected.
2. The harbour to be surveyed is surrounded by mountains.
3. A cyclonic centre is said to deepen when the pressure in the centre decreases while it moves across the chart.
4. The situation over the Atlantic was rather clear and the resulting differences ought to represent minimum rather than maximum values.
5. The final test is to compare the readings at atmospheric pressure before and after the low-pressure test.
6. We know the air to be traveling over a surface which is much colder that the air itself.
7. Meteorological observations are supposed to have been included into the international programme.
8. Synoptic situations to be characterized by a combination of relatively low temperatures over North America and Europe with heavy rainfall in the tropics are important for our work.
9. In order to obtain analytical expressions for the velocities and accelerations, it is convenient to consider the pressure variations in two systems of coordinates.
10. To register the current temperature one can use a simple thermometer.

IV. Перепишіть та письмово перекладіть речення, звертаючи увагу на відмінність у перекладі залежного та незалежного дієприкметникових зворотів:

1. Being of a transitory nature, the land and the sea breezes do not adjust themselves readily to the pressure gradient and consequently blow more or less directly from sea to land and vice versa.

2. When coming into contact with the stable layer, the vertical currents spread out their products of condensation below this layer and the result is a more or less thick strato-cumulus or flattened isolated cumulus called trace-wind cumulus.
3. In the high levels of the atmosphere the trade winds undergo complete reversal, the upper currents being known as the antitrades.
4. The weight of the air column depends upon its height, its temperature and its pressure, the last two factors affecting density.
5. Applying this method and noting that the barometric tendency at south Greenland is negative, we see that isallobaric gradient is very slight.
6. From the surface up to the 2.000 feet level, the wind increases in speed to a greater or lesser degree, depending upon the turbulence.
7. The diurnal variation of relative humidity is determined by absolute humidity and temperature, the latter being the controlling factor.
8. Observed data may be plotted on cross-section paper and a smooth curve may be drawn connecting the observed points.
9. If the slope is covered with snow or ice, the descending air is strongly cooled and may attain a considerable speed.
10. The heat gained from the air is expended in evaporating water from the wet-bulb thermometer.

V. Письмово перекладіть різні типи умовних речень. Зверніть увагу на сполучники, які представлені умовними реченнями:

1. If the dew-point passed, condensation would begin.
2. Were it not for the protective ozone layers, life upon the earth might have been impossible.
3. If the vapour cooled below its dew point, some of it would become liquid.
4. The vertical movements of the atmosphere usually pass unnoticed by most people unless those movements are specially vigorous.
5. If the air hadn't been saturated, its wet-bulb thermometer would have been lower than the air temperature.
6. Had the air contained only very small dust particles, condensation would have been delayed.
7. If the outgoing terrestrial radiation were greater than the incoming solar radiation, the earth would become progressively colder.
8. The hair hydrometer or hydrograph is far from being a satisfactory instrument because it is reliable only if calibrated frequently and carefully.
9. If substance is heated, a more rapid motion of its molecules will be caused.
10. Provided the diurnal variations of relative humidity could determine, the absolute humidity and temperature would be the controlling factors.

ВАРІАНТ №7

І. Зробіть письмовий переклад тексту:

Text PRESSURE AND WIND FIELDS

The horizontal Coriolis force is very small in the tropics and equals nil at the equator. Therefore the quasi-geostrophic balance may no longer be true here, which poses a most serious problem before tropical weather analysts and forecasters. Many scale analysis models and simplifications used to advantage in the middle latitudes appear unfit in the tropics.

Weather forecasting is essentially extrapolation of weather data in space and time. To provide the extrapolation wind-pressure relationships are required without which the procedure would be not only difficult but often even impossible. In some part of the tropics this role may undertake the geostrophic relationship though a certain degree of care should be exercised in their application. So far no unanimous opinion exists as to what latitude should be taken such a limiting zone where the quasi-geostrophic approximation could be till applicable.

In many circumstances better results are provided with the cyclostrophic wind. In comparatively small cyclones – and they are indeed less in the tropics than in the temperature zone – the centrifugal force is in exact balance with the horizontal pressure gradient. The cyclostrophic balance approximation is much superior to the geostrophic when applied to the tropical cyclones. The actual wind in the cyclones blows at 50-60 m s^{-1}, the cyclostrophic approximation gives rise to 70-75 m s^{-1} whereas the geostrophic relationship supply 200-250 m s^{-1}.

The cyclostrophic balance can exist only when the curvature of the air stream is cyclonic because with an anticyclonic curvature the centrifugal force and pressure gradient act in the same direction. This fact, in particular, has given rise to a hypothesis that anticyclones cannot exist in the equatorial region. Observations, however, have not proved it.

ІІ. Дайте письмову відповідь на такі запитання:

1. When is the horizontal Coriolis force small and nil ?
2. Weather forecasting is extrapolation of weather data in space and time, isn't it ?
3. What happens in comparatively small cyclones ?
4. When can the cyclostrophic balance appear ?
5. What does the anticyclonic hypothesis say about ?

III. Перепишіть та письмово перекладіть інфінітивні конструкції, об'єктивний та суб'єктивний інфінітивні звороти, які відповідають додатковим реченням:

1. As long as people and goods continue to be carried by air, meteorological work must continue.
2. To make a chart of the required accuracy, the hydrographers resounded the area.
3. This meteorologist is to make a report about the results of the last expedition he took part in.
4. Marine surveys are known to have great varieties in the methods that can be employed in making them.
5. Detailed surveys are supposed to be mostly confined to such ports, harbours and channels which are largely used in navigation.
6. We suppose the final scale of any chart to depend upon the observation taken in any part of the plotted area.
7. The necessity for sketch surveys may be said to be getting less and less every year.
8. To lay off this angle, we took a long radius.
9. To discuss the general questions of plotting is necessary for successful work.
10. The deeper soundings are likely to be taken from the ship to a sufficient distance or depth off shore.

IV. Перепишіть та письмово перекладіть речення, звертаючи увагу на відмінність у перекладі залежного та незалежного дієприкметникових зворотів:

1. Towards the western sides of the anticyclones the winds turn polewards, becoming south-easterly in the northern and north-easterly in the southern hemisphere, at the same time becoming less steady in speed and direction.
2. These clouds exist at very different levels, but when viewed from above, the have a very similar structure, the upper surface having the characteristic rippled aspect.
3. Considering the atmosphere, we find that unstable conditions occur every day and every year.
4. The duration of rise and the duration of fall are equal, each being about 6 hours 12 minutes or 6.2 hours.
5. The waters surrounding the British Isles are dominated by strong tidal currents.
6. Two high and two low waters occur during each tidal day, morning and afternoon tides being very much alike.
7. All observation taken in the meteostations indicated a constant northward air flow.

8. A great number of thunderstorms occurred at inland stations, three being observed in the vicinity of our station and no less than eight were observed by some other stations.
9. Owing to its continental origin, the winter monsoon is a cold dry wind.
10. The cloud known as altostratus (or nimbostratus) has a great vertical extension but no great opacity.

V. Письмово перекладіть різні типи умовних речень. Зверніть увагу на сполучники, які представлені умовними реченнями:

1. If these air temperatures were higher than usual, ice conditions would be better.
2. Were any attempts made to find a correlation between sea temperatures and the amount of sea ice, satisfactory results would be easily obtained.
3. Had predictions of temperature conditions been made from the average charts, then, in general, they would have given temperatures above the thermocline within $2F^{o}$.
4. If the slope is covered with snow or ice, the descending air is strongly cooled and may attain a considerable speed.
5. The dissolved oxygen might be saturated if there were no biochemical oxygen consumption in the sea.
6. If you cross a certain current and wish to know the limits of it, you have to increase the number of observations.
7. Had the Gulf Stream been directed from S.E. to N.W. westerly and easterly winds would have resulted, which would have had very little or no influence on the air temperature in Europe.
8. If the composition of the atmosphere determined, we should be able to make certain conclusions concerning the amount of nitrogen in it.
9. If an observer faces the wind, the centre of a cyclone will hear approximately 120^{o}.
10. If the air were true tropical air, it would almost certainly be saturated.

ВАРІАНТ №8

I. Зробіть письмовий переклад тексту:

Text WIND

The wind field in the tropics has three major zones: (1) the trade wind belt of the Northern Hemisphere; (2) the trade-wind belt of the Southern Hemisphere; and (3) the equatorial trough region. At times the trough zone is called the transition region from the northern to the southern trades. In the southern winter it normally migrates northward to lie somewhere between 0 and 5^oN, and in summer it displaces up to 15^oN.

Characteristic of some regions in the tropics are monsoon currents. Above all it is the notorious Asiatic monsoon. In the area where it is active, southwest flows prevail in the northern summer and northeast flows in winter. Well defined are also African monsoons. In the northern summer the southern winds having a western component make wide incursions into the western African continent bringing rain over large territories. In winter these winds go only as far as the African coast around the Gulf of Guinea while the north-eastern winds prevail farther north.

The trades occupy the bulk of the tropics. Broadly speaking, they blow from ENE in the Northern Hemisphere and from ESE in the Southern Hemisphere. But the flow points a little more toward the equator in winter than in summer. So, the average wind direction in the Northern Hemisphere is around 50^o in January and around 70^o in July. In the Southern Hemisphere it is near 130^o in July (wintertime) and near 110^o in January (summertime).

In January the winds reach their main peaks at about 10^oN and 20^oS. Three ad joint minima are noted at the time: at 30^oN and at 5 and 35^oS. In July the main maximum shifts towards 15^oS and the second maximum to 20^oN. Accordingly, the profile has three minima: at 35 and 10^oN and at 30^oS.

II. Дайте письмову відповідь на такі запитання:

1. What are the major zones of the wind field ?
2. What are the characteristic of zone regions in the tropics ?
3. What happens in the active area ?
4. What is the average wind direction in January ?

III. Перепишіть та письмово перекладіть інфінітивні конструкції, об'єктивний та суб'єктивний інфінітивні звороти, які відповідають додатковим реченням:

1. Evaporation doesn't cause condensation to occur in the rain.

2. There seems to be no indication of a constant temperature with height in the stratosphere, at least not in the layer between 100 and 50 mb.
3. Present measurements were made on the coast of Western Australia where reliable on-shore winds were known to exist.
4. Stream fogs are known to occur in strong winds.
5. The velocity can be obtained from equation but the computed result is likely to be inaccurate.
6. For prediction of radiation fogs it is of basic importance to estimate the amount of cooling which is likely to occur.
7. A cyclone centre is said to deepen when the pressure in the centre decreases while it moves across the chart.
8. The results of previous research seemed to indicate the presence of gas traces in our atmosphere.
9. The situation over the Atlantic was rather clear and resulting differences ought to represent minimum rather than maximum values.
10. The final test is to compare the readings at atmospheric pressure before and after the low-pressure test.

IV. Перепишіть та письмово перекладіть речення, звертаючи увагу на відмінність у перекладі залежного та незалежного дієприкметникових зворотів:

1. A wind rose is a diagram shoeing the proportion of winds blowing each of the main points of the compass.
2. Tropical storms are in all cases preceded by storm tides, the water commencing to rise on the coast in front of the cyclonic disturbance, one or two days before the storm is experienced.
3. A beam of white light passing through air loses the constituents of shorter wave-length and becomes yellow, then orange and finally red.
4. The table shows the numbed of occurrences of tropical cyclones reported over various periods for different parts of the world.
5. Commencing in the areas where the wind is strongest, we obtain isobars as shown by the full lines.
6. Starting from a series of maps analysed as shown in the previous paragraphs, the forecast may be approached in several steps, each dealing with the solution of one of partial problems.
7. Other conditions being equal, it is easier to draw isobars in areas where the winds are strong than in those areas where they are weak.
8. Applying this method and noting that the barometric tendency at south Greenland is negative, we see that isallobaric gradient between south Greenland and Yan Mayer is very slight.
9. Warm frontal characteristics were much the same for the coastal stations, the fronts being too shallow in most cases to give typical weather sequences.

10. Rain associated with thunder-storms affords a striking example of the convectional type.

V. Письмово перекладіть різні типи умовних речень. Зверніть увагу на сполучники, які представлені умовними реченнями:

1. If the air were saturated adiabatically and with constant moisture content, it would become saturated at its condensation level.
2. If we try to determine the position and the properties of the air mass, we must study the meteorological charts.
3. Were this formula used to calculate the height of the tops of cumulus and cumulo-nimbus, we should obtain an accuracy of ±25mb in about 55% of the cases.
4. If the northern part of the Golf Stream is warm, the winter will be warm in Europe and cold in Greenland, the difference being more pronounced the warmer the Gulf Stream is.
5. Unless one carried out a great number of observations, it would be extremely difficult to come to a certain conclusion concerning the factors influencing the weather.
6. Were any appreciable mixing between the ascending and descending masses below the cloud base, one would expect that the difference between the observed and computed condensation level would increase.
7. If the humidity had been less than that indicated in Figure 5, the line CB would have been representative.
8. If a front lies along the isobars, it will remain more or less stationary.

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