



GIET UNIVERSITY, GUNUPUR – 765022
 B. Sc (AG) (Second Semester) Examinations, October – 2021
AG-123 – Introductory Agro meteorology and Climate Change

Time: 2 hrs

Maximum : 50 Marks

The figures in the right hand margin indicate marks.

PART – A

Q.1. Fill in the blanks with suitable word / figure.

(0.5 x 10 = 5 Marks)

- a. The term “Latent” means
- b. The unit of pressure most commonly found on a surface weather map is
- c. IMD was established in
- d. Blue colour of the sky is due to
- e. The percentage of water vapor present in the air compared to that required for saturation is the
- f. state receives most rainfall during N-E Monsoon.
- g. An increase in albedo would be accompanied by..... in radiative equilibrium temperature.
- h. Alto-cumulus is a type ofheight clouds.
- i. fronts are responsible for development of temperate cyclone
- j. The temperature at which condensation of water vapour starts is called as.....

Q.2. Define (or) Explain the following in one or two sentences.

(1 x 5 = 5 Marks)

- a. Absorptivity
- b. Monsoon
- c. Isotach
- d. Black body
- e. Global warming

Q3. Match COLUMN-A with COLUMN-B

(0.5 x 10 = 5 Marks)

Column – A		Column – B	
(a)	Humidity	(i)	Quantity of water vapour by weight present in a given volume of air
(b)	Drizzle	(ii)	Weight of water vapour per unit weight of air including water vapour
(c)	Absolute humidity	(iii)	water vapour content in the atmosphere
(d)	mist	(iv)	Rain at subfreezing temperature freezes into ice
(e)	snow	(v)	Ratio of water vapour present in the air to water vapour required for saturation
(f)	Glaze	(vi)	Difference between saturation vapour pressure and actual vapour pressure
(g)	Specific humidity	(vii)	Sublimation of water vapour at sub freezing temperature and is in solid form
(h)	rime	(viii)	Water droplets completely evaporates before reaching the ground
(i)	Relative humidity	(ix)	Rain of very light intensity with fine droplets (<0.5 mm diameter) and barely reaches the earth
(j)	Vapour pressure deficit	(x)	Freezing fog

Q4. Write True or False against each statement

(0.5 x 10 = 5 Marks)

- a. Convection is much faster than conduction.
- b. High clouds cause more rainfall than low clouds.
- c. During the day time there is land breeze while during the night there is sea breeze.
- d. Relative humidity is affected by vapour pressure in the air
- e. High maximum temperature decreases the saturation deficit of the plants.
- f. Density of atmosphere decreases as we ascend from the surface of the earth.
- g. The position of earth nearest to the sun is described as Aphelion.
- h. High maximum temperature decreases the saturation deficit of the plants.
- i. Weather decides the crop yield in a given season.
- j. Dew is the source of water in arid region.

PART – B

Attempt ANY FIVE questions. All question carry equal marks.

(5 x 6 = 30 Marks)

5. What do you mean by SALR and DALR? Write down its values. Give Stefan Boltzman's Law and Kirchoff's Law.
6. What do you mean by geostropic wind and pressure gradient force? Describe South West monsoon mechanism.
7. Define precipitation. Describe the WMO- cloud classification.
8. Differentiate between Weather and Climate. Describe the scopes and importance of Agricultural Meteorology.
9. What is Condensation? Write down the necessary conditions required for condensation to take place? Describe in brief the different forms of condensation.
10. What do you mean by albedo and solar constant? Describe in short about radiation budget of the earth atmospheric system along with the diagram.

--- End of Paper ---