



KERALA AGRICULTURAL UNIVERSITY
B.Sc.(Hons) Forestry 2017 Admission
II Semester Final Examination- August 2018

Bass.1208

Climate Science (1+1)

Marks: 50
Time:2 hours

I Fill in the Blanks (10x1=10)

- 1 The science investigating the meteorologic, climatologic, and hydrological conditions that are significant for agriculture is called
 - 2 Increase in the concentration of carbon dioxide (Increase/decrease) the atmospheric temperature.
 - 3 Isobar indicate distribution.
 - 4 is the process of exchange of heat and moisture between earth and atmosphere over a large period of time (month, season, year) related to large area (zone, state, country).
 - 5 Aneroid barometer is used for measuring
- State true or false**
- 6 Concentration of ozone is mainly in the upper layers of atmosphere between 80 and 100 km.
 - 7 Blue colour of the sky and red colour of sunset are due to selective scattering of visible solar spectrum by gas molecules and dust particles.
 - 8 Water vapour content of the air is high in cold areas relative to that in dry areas.
 - 9 Cloud cover is expressed by Okta.
 - 10 Heat unit concept assumes negative relationship between plant growth and temperature.

II Write Short notes on any FIVE of the following (5x2=10)

- 1 Beer's Law
- 2 Structure of the atmosphere
- 3 Lapse rate
- 4 Global warming
- 5 PAR
- 6 La Niña
- 7 Vapour Pressure Deficit

III Answer any FIVE of the following. (5x4=20)

- 1 Differentiate between cyclone and anti-cyclone
- 2 Evapotranspiration. Explain the factors influencing evapotranspiration.
- 3 What are the management practices in crop field to combat frost.
- 4 How high temperature cause plant injury
- 5 Net radiation
- 6 Solar radiation and its form
- 7 Explain the strategy to mitigate GHG emission in agriculture.

IV Write an essay on any ONE of the following (1x10=10)

- 1 Why forest is important for food security and sustainable agriculture?
- 2 What is climate resilient forestry and its help in combating climate change?
