



UNIVERSITY OF THE PUNJAB

B.S. 4 Years Program / Eighth Semester – 2020

Paper: Challenges of a Changing Earth

Course Code: BOT-413 Part – I (Compulsory)

Time: 15 Min. Marks: 10

Roll No. in Fig.

Roll No. in Words.

Signature of Supdt.:

ATTEMPT THIS PAPER ON THIS QUESTION SHEET ONLY.

Division of marks is given in front of each question.

This Paper will be collected back after expiry of time limit mentioned above.

Q.1. Encircle the correct option.

(10x1=10)

- (i) Which of the following is not included in the category of greenhouse gases?
(a) Methane (b) Hydrogen (c) Carbon Dioxide (d) Nitrous Oxide
- (ii) The reservoir for nitrogen is located in
(a) Sedimentary rocks (b) Oceans (c) Atmosphere (d) All a, b and c
- (iii) Sea water level rise due to global warming is caused by
(a) Melting of Polar Ice-caps (b) Melting of Glaciers
(c) Thermal expansion of Sea water (d) All a, b and c
- (iv) As compared to pre-industrial level global annual flux of Sulphur to atmosphere due to human activities has increase by
(a) 45% (b) 50% (c) 55% (d) 60%
- (v) Ozone hole is located on
(a) Arctic (b) Equator (c) Antarctic (d) Alpine
- (vi) Flowing water of rivers from land to sea transports
(a) Particulate matter (b) Nutrients (c) Organic Materials (d) All a, b and c
- (vii) During Global warming, maximum temperature increase will be observed at
(a) Polar regions (b) Tropical regions (c) Temperate regions (d) sub-tropical regions
- (viii) Percentage proportion of world's fisheries present in the coastal zone is
(a) 90% (b) 80% (c) 75% (d) 70%
- (ix) Ozone is formed in upper atmosphere by a photochemical reaction of oxygen with
(a) Ultraviolet radiation (b) Visible Light (c) Infra-red radiation (d) All a, b and c
- (x) In the 21st century, sea level rise is not likely to exceed
(a) 100 cm (b) 80 cm (c) 60 cm (d) 50 cm



ATTEMPT THIS (SUBJECTIVE) ON THE SEPARATE ANSWER SHEET PROVIDED

Q.2. Write brief notes on the following (5x4=20)

- (i) What is the role and impacts of Dams on Deltas and Estuaries?
- (ii) What is Cryosphere and its role in climate system?
- (iii) The Biodiversity Convention.
- (iv) Model based prediction of climate change for the future.
- (v) Briefly describe terrestrial carbon cycle.

Write detailed notes on the following: (3x10=30)

- Q.3.** Critically discuss impact of population growth on air pollution and climate changes in the coastal zone of South-East Asia. **(10)**
- Q.4.** Give a critical account of impacts of global warming and climate change in food production / food security in the 21st century. **(10)**
- Q.5.** Give a detailed account of impact of human included land-cover and land-use changes over East Asia on the monsoon system. **(10)**