

**UNIVERSITY OF COLOMBO –SRI LANKA**

**Special Degree/ Study Stream Examination in Arts (Geography) – Part II**

**First Semester End Examination -2017**

**GYG 3150- PAST CLIMATE AND CLIMATE CHANGE**

**Two Hours (02)**

Answer **Three (03)** Questions Only

**Two** Outline World Maps will be provided

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1. “Recorded history of climatic factors is satisfactory evidence to study the past climate of the earth”. Do you agree with this idea? Critically examine this statement.  
(20 Marks)
  
  2. (i) Explain the principal steps of stratospheric ozone depletion.  
(10 Marks)
  
  - (ii) Explain why the polar regions are severely affected by ozone depletion.  
(10 Marks)
  
  3. (i) Mark and name the areas severely affected by the acid rain problem in USA on the given outline map of the world.  
(05 Marks)
  
  - (ii) Discuss with examples, the factors that need to be considered when are carrying out research on the acid rain problem.  
(15 Marks)

4. (i) What is meant by **Nuclear winter**?

(05 Marks)

(ii) Discuss the importance of studying the "TTAPS" scenario in relation to nuclear winter.

(15 Marks)

5. (i) Explain how volcanic eruptions contribute to the changes of the earth's atmosphere.

(10 Marks)

(ii) Explain the effects of increasing carbon dioxide concentrations in the atmosphere on crop production.

(10 Marks)

6. Critically examine the effectiveness of the climate models that have been introduced to study the changes of the earth's atmosphere.

(20 Marks)

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