

FUKIEN SECONDARY SCHOOL  
S4 First Term Uniform Test (2020-2021)  
Geography  
(1 hour 15 minutes)

Date: 20<sup>th</sup> October 2020

Name: \_\_\_\_\_

Time: 10:15 a.m. - 11:30 a.m.

Class: \_\_\_\_\_ No.: \_\_\_\_\_

**Instructions to Candidates:**

1. The full mark of this paper is 40.
2. Answer **ALL** questions.
3. Write all answers on the single-lined paper provided.
4. Hand in both the question paper and the single-lined paper at the end of the test.

**I. Multiple Choice Questions (10 marks)**

Choose the best options and write the correct answers on the single-lined paper.

1. Which of the following is/are the weather element(s)?
  - (1) Visibility
  - (2) Precipitation
  - (3) Air pressure

A. (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3)
2. Which of the following are the characteristics of arid climatic zone?
  - (1) Low annual rainfall
  - (2) Small annual range of temperature
  - (3) Large diurnal range of temperature

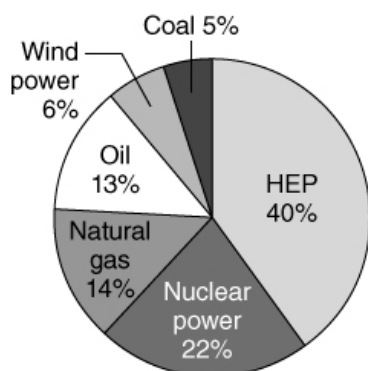
A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3)

3. Which of the following is/are the possible natural cause(s) leading to climate change?

- (1) Melting of the permafrost
- (2) Changes in the shape of the earth's orbit
- (3) Fluctuations in the tilt of the earth's axis

- A. (1) only
- B. (1) and (2) only
- C. (2) and (3) only
- D. (1), (2) and (3)

4. The figure below shows the sources of energy in Country X. Which of the following statements about Country X are correct?

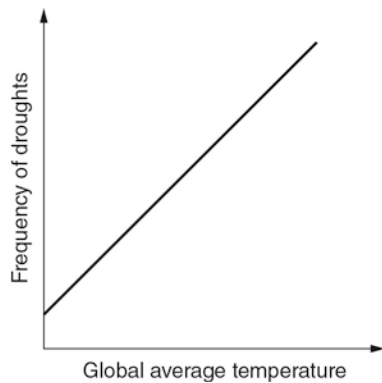


- (1) Country X contributes little to climate change from the energy production sector.
- (2) Country X is a more developed country.
- (3) Fossil fuels are the major energy resources in Country X.

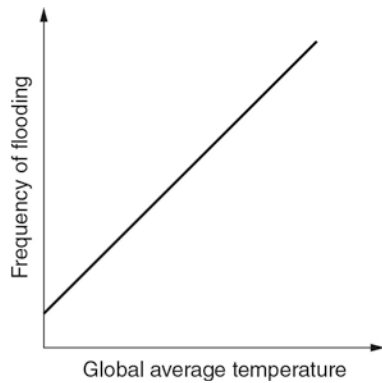
- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

5. Which of the following figures correctly show the relationship between the global average temperature and the frequency of extreme weather events?

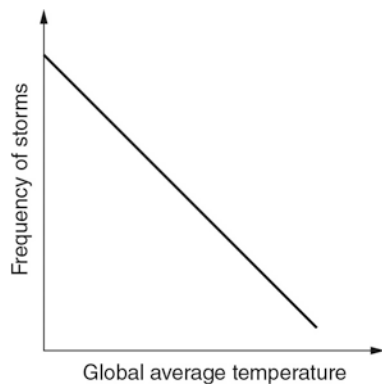
(1)



(2)

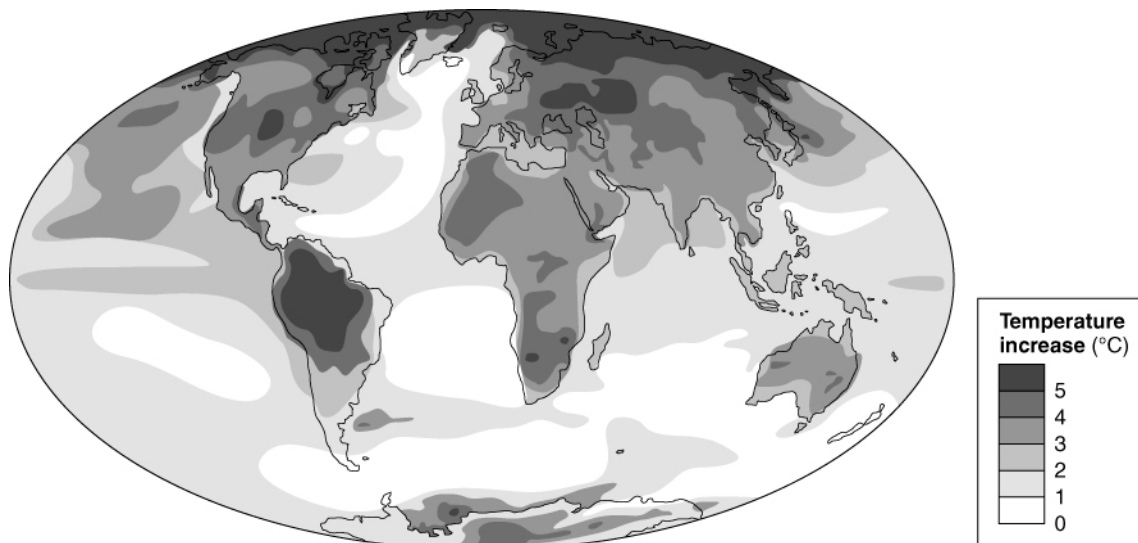


(3)



- A. (1) and (2) only  
B. (1) and (3) only  
C. (2) and (3) only  
D. (1), (2) and (3)

6. The figure below shows the projected global temperature changes between 2070 and 2100. Which of the following descriptions about the figure are correct?



- (1) Temperature increase over the ocean is smaller than that over the continents.
- (2) All places on earth experience rising temperature.
- (3) Places near the North Pole have a larger increase in temperature than places near the South Pole.
- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)
7. Which of the following are the pieces of evidence of climate change?
- (1) More heat waves
- (2) More wildfires
- (3) Increasing amount of carbon dioxide in the atmosphere
- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

8. Which of the following human activities produce nitrous oxide?

- (1) Production of foams
- (2) Production of nylon
- (3) Combustion of fossil fuels

- A. (1) and (2) only
- B. (1) and (3) only
- C. (2) and (3) only
- D. (1), (2) and (3)

9. Refer to the photo below. Which of the following greenhouse gases are produced by the human activity shown?



- (1) Methane
  - (2) Nitrous oxide
  - (3) Carbon dioxide
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

10. Refer to the photo below. Which of the following descriptions about the natural event shown are correct?



- (1) The gases ejected may create cooling effect.
  - (2) The ashes ejected reduce the sunlight reaching the earth's surface.
  - (3) It releases carbon dioxide that helps absorb more long wave radiation.
- A. (1) and (2) only
  - B. (1) and (3) only
  - C. (2) and (3) only
  - D. (1), (2) and (3)

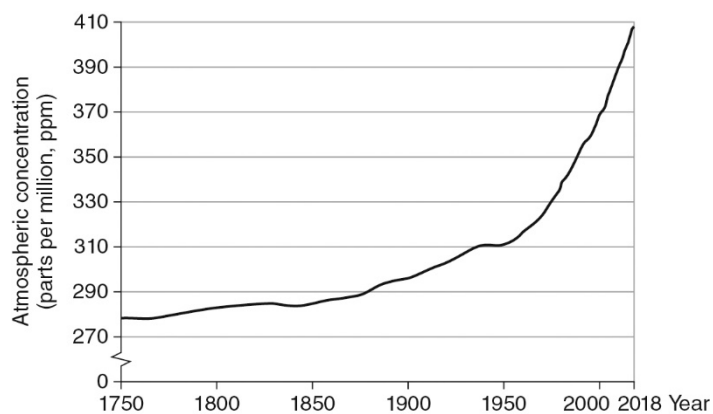
## II. Data-based Question (18 marks)

1. Figure 1a shows the climatic data of Country X. Figure 1b shows the changes in the concentration of carbon dioxide in the atmosphere. Figure 1c shows the global average temperature from 1880 to 2018. Photo 1d shows a human activity found in Country X.

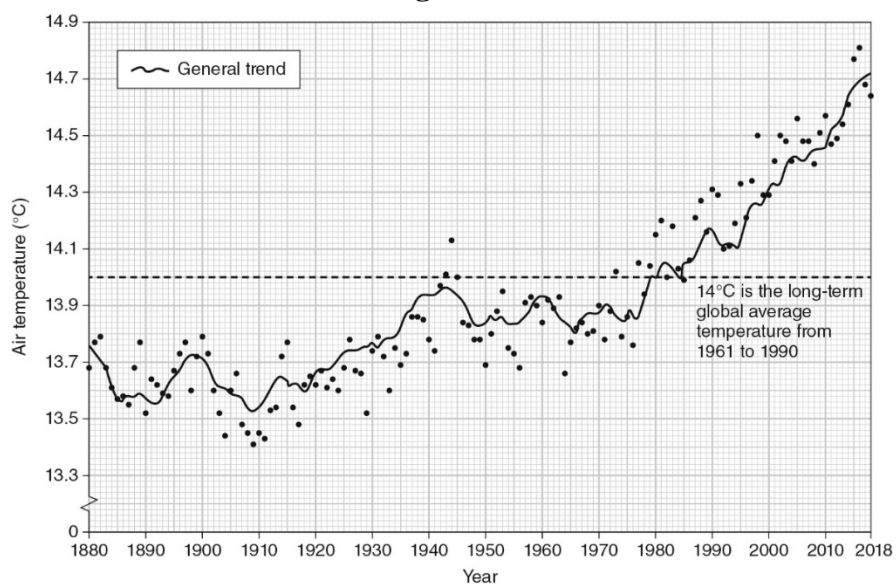
**Figure 1a**

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Monthly Mean Temperature (°C)	26	26	27	27	27	27	27	27	27	27	26	26
Rainfall (mm)	240	160	134	177	193	204	179	210	249	317	295	349

**Figure 1b**



**Figure 1c**



**Photo 1d**

(a) Refer to Figure 1a.

(i) Draw a climatic graph of Country X on the graph paper provided. (4 marks)

(ii) Describe the climatic characteristics of Country X. (4 marks)

(b) Refer to Figures 1b and c.

(i) Describe the changes in the concentration of carbon dioxide in the atmosphere. (3 marks)

(ii) Account for the relationship between the changes in the atmospheric concentration of carbon dioxide and the changes in global average temperature. (4 marks)

(c) Refer to Photo 1d.

(i) Identify the human activity shown. (1 mark)

(ii) Explain how this human activity affects the concentration of carbon dioxide in the atmosphere. (2 marks)

### **III. Short Essay (12 marks)**

1. Explain the mechanism of the greenhouse effect. Explain how agricultural activities lead to climate change. (12 marks)

**-- End of Paper --**