

2022 US Geography Championships Multiple Choice Examination - Part 2

Instructions – This portion of the multiple choice examination consists of 40 questions. You will receive two points for a correct answer. You will lose one point for an incorrect answer. Blank responses lose no points. Please fill in the bubbles completely on the answer sheet. You may write on the examination, but all responses must be bubbled on the answer sheet. All images are contained in the resource booklet. Diacritic marks such as accents may have been omitted from place names and other proper nouns. You have one hour to complete both the written portion of the examination and this set of multiple choice questions.

Questions 1-10 refer to image 1 in the resource section.

1. Which of these best describes the demographic transition model?

- A. it illustrates the effect of agricultural development on health and well-being of a population
- B. it describes stages of population growth and decline in countries based on a variety of factors
- C. it ignores immigration and focuses solely on birth rate
- D. it uses economic development as its primary method of analysis

2. What stage or stages of the demographic transition model is characterized by a high birth rate?

- A. 1 only
- B. 1 and 2
- C. 2 only
- D. 2 and 3

3. In what stage or stages of the demographic transition model are death rates falling?

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

4. Based on this graph of the demographic transition model, which letter represents a country that is in a hypothetical Stage 5 of the model?

- A. F
- B. B
- C. G
- D. A

5. Which letter represents a country in stage 1 of the model?

- A. C
- B. D
- C. E
- D. F

6. What is the percentage of elderly people in country H on the graph?

- A. 30%
- B. 52%
- C. 75%
- D. none of these is the percentage of elderly people in country H

7. Which country is most likely represented by H on the graph?

- A. Afghanistan
- B. the United States
- C. Japan
- D. given the information on the graph, H is not an actual country

8. Which letter most likely represents Uzbekistan?

- A. D
- B. E
- C. F
- D. G

9. Letter B on the graph shows which of the following?

- A. a country with a rapidly growing population
- B. a country with a rapidly ageing population
- C. a country where elderly, adult and young populations are roughly in balance
- D. a country with a slowly shrinking population

10. Geographers disagree about which of the following about countries that may be entering stage 5 of the demographic transition model?

- A. whether life expectancy will continue to rise
- B. the quality of life for elderly residents
- C. whether these countries will be able to achieve gender parity
- D. whether populations of stage 5 countries will grow or shrink

Questions 11-20 refer to image 2 in the resource section.

11. All of these contribute to the high level of variability in Australia's climate EXCEPT which of the following?

- A. the small number of climate regions within the country
- B. the size of Australia's landmass
- C. influence from circulation patterns like El Nino, the Indian Ocean Dipole, and the Southern Annular Mode
- D. effects of continentality

12. Which of these makes inland areas of Australia particularly dependent on rainfall than similar areas on other continents?

- A. a robust system of inland rivers
- B. the lack of a large snow-capped mountain range
- C. the large amount of Australian coastline
- D. the abundance of shallow lakes in inland areas

13. Which of these is NOT a climate type on mainland Australia?

- A. savanna
- B. cold desert
- C. tundra
- D. monsoon

14. Which of these is the largest desert in Australia?

- A. the Great Sandy Desert
- B. the Gibson Desert
- C. the Great Victoria Desert
- D. the Simpson Desert

15. Based on the map, which of these is generally true of the fire risk in the desert regions of Australia?

- A. it has generally increased by 300 to 400 points
- B. it has generally increased by 0 to 200 points
- C. it has stayed roughly the same
- D. it has generally decreased by some amount

16. All of these have helped to cause increased fire risk in Australia during the last three years EXCEPT which of the following?

- A. the Indian Ocean Dipole has pushed moisture away from Australia
- B. the Southern Annular Mode channels warm, dry air from Antarctica to Australia
- C. wet weather and flooding in Queensland drew moisture away from other parts of the continent
- D. drought conditions in the interior of the country pushed hot, dry air towards the coasts

17. A positive Indian Ocean Dipole, in which the western part of the ocean becomes warmer, is associated with all of these EXCEPT which of the following?

- A. droughts in Southeast Asia
- B. flooding in East Africa
- C. droughts in Australia
- D. flooding in southern and eastern China

18. Which of these is closest to the amount of warming Australia has experienced since 1910?

- A. about .5 degrees Celsius
- B. just over 1 degree Celsius
- C. just over 2 degrees Celsius
- D. nearly 3 degrees Celsius

19. Which of these has NOT contributed to the increased risk to humans from wildfires in the last twenty years?

- A. longstanding policies of wildfire suppression
- B. climate change
- C. wildland fire use
- D. rapid expansion of human developments into fire-prone areas

20. Which of these is seen as a cost-effective way to preventing wildfires, especially in areas away from human settlement?

- A. controlled burning
- B. commercial 'thin-below' logging
- C. fast and effective detection
- D. remote sensor networks

Questions 21-30 refer to image 3 in the resource section.

21. Which country is represented by 1 on this chart?

- A. Japan
- B. the United States
- C. China
- D. India

22. Which country is represented by 2 on this chart?

- A. Japan
- B. the United States
- C. China
- D. India

23. Which country is represented by 3 on this chart?

- A. Japan
- B. the United States
- C. China
- D. India

24. Which country is represented by 4 on this chart?

- A. Japan
- B. the United States
- C. China
- D. India

25. Given the information on the chart, where will the most growth in middle class consumption occur over the next 30 years?

- A. Asia
- B. North America
- C. Europe
- D. none of these

26. Which of these is NOT a likely cause for the shrinking of middle-class consumption in country 1 over the next 30 years?

- A. low population growth
- B. a shrinking economy
- C. increasing income inequality
- D. slow growth of the middle class

27. Which of these is NOT a likely cause for the increasing middle-class consumption in country 3 over the next 30 years?

- A. steady population growth
- B. rapid growth of the middle class
- C. a developing economy
- D. intensive government intervention in the economy

28. Based on current measurements of purchasing power parity and income, roughly what percentage of the world's population fits the definition of 'middle class'?

- A. 10%
- B. 25%
- C. 50%
- D. 75%

29. Which of these is NOT a typical middle-class economic activity that increases greenhouse gas emissions?

- A. travel and tourism
- B. the purchase of homes
- C. having a larger number of children
- D. the purchase of durable goods

30. Which of these is NOT a way countries could control greenhouse gas emissions associated with the expansion of the middle class?

- A. providing universal secondary education to girls
- B. investing in mass transit systems in cities
- C. investing in energy-efficient buildings and smart technology in cities
- D. increasing domestic manufacturing capacity

Questions 31-40 refer to images 4-9 in the reference section. These images are thin sections (images 4-6) and photographs of rock formations (images 7-9).

31. Which of these thin sections shows a sedimentary rock thin section?

- A. 4
- B. 5
- C. 6
- D. it is impossible to tell from the images provided

32. Which of these thin sections shows an igneous rock thin section?

- A. 4
- B. 5
- C. 6
- D. it is impossible to tell from the images provided

33. Which of these images shows a metamorphic rock thin section?

- A. 4
- B. 5
- C. 6
- D. it is impossible to tell from the images provided

34. Which of these correctly matches its thin section with a photograph of the same type of rock?

- A. 4 and 7
- B. 5 and 7
- C. 6 and 9
- D. 4 and 9

35. Which of these images shows a rock type typical in areas of karst topography?

- A. none of these shows a rock type typical of karst topography
- B. 7
- C. 8
- D. 9

36. Which of these images shows a rock type or types typical of the Canadian Shield?

- A. 7 only
- B. 8 only
- C. 9 only
- D. 7 and 8

37. Which of these images shows a rock type or types found in the Grand Canyon?

- A. 7, 8, and 9
- B. 7 and 9
- C. 8 and 9
- D. 9 only

38. In which type of rock would oolites be found?

- A. metamorphic
- B. sedimentary
- C. igneous
- D. oolites are only present in corals

38. In pedogenesis, which of these rock types is the parent material of most soils on earth?

- A. metamorphic
- B. sedimentary
- C. igneous
- D. soils form from all three of these rock types

39. Aeolian processes usually result in the formation of what type of soil?

- A. regolith
- B. loess
- C. saprolite
- D. bedrock soils

40. Sedimentary deposits settled in lakes are referred to by which of the following terms?

- A. marine
- B. alluvial
- C. lacustrine
- D. fluvial