

2021 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 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 the following passage.

“The tendency of mankind to congregate in cities is a marked characteristic of modern times. This movement is confined to no one country, but is world-wide. Each year Rome, and the cities of the Orient, as well as Berlin, New York, and Chicago, are adding to their population at an unprecedented rate. Coincident with this urban development there has been a widespread increase in wealth, and also an enlarged population on the part of the people in the work of government. As a natural result of these causes has come the desire to better the conditions of living. Men are becoming convinced that the formless growth of the city is neither economical or satisfactory; and that overcrowding and congestion of traffic paralyze the vital functions of the city. The complicated problems which the great city develops are now seen not to be beyond the control of aroused public sentiment; and practical men of affairs turning their attention to working out the means whereby the city may be made an efficient instrument for providing all its people with the best possible conditions of living.

Chicago, in common with other great cities, realizes that the time has come to bring order out of the chaos incident to rapid growth, and especially to the influx of people of many nationalities without common traditions or habits of life. Among the various instrumentalities designed to accomplish this result, a plan for a well-ordered city is seen to be indispensable...”

Daniel H. Burnham, *Plan of Chicago*, 1909

1. Burnham’s *Plan of Chicago* is considered a foundational document of which of the following schools of urban planning?

- A. the sanitary movement
- B. the City Beautiful movement
- C. incrementalism
- D. synoptic planning

2. This document was heavily influenced by the work of which of the following urban planners in England?

- A. Frank Lloyd Wright
- B. Le Corbusier
- C. Patrick Geddes

D. Ebenezer Howard

3. Burnham, along with Charles McKim, Frederick Law Olmstead and Augustus Saint-Gaudens were instrumental in redesigning the monumental core of which of the following American cities in the early twentieth century under the McMillan Plan?

- A. New York, NY
- B. San Francisco, CA
- C. Washington, DC
- D. New Orleans, LA

4. According to the passage, Burnham wanted to create all of these with his urban planning EXCEPT which of the following?

- A. promotion of civic and moral virtue through orderly growth
- B. a city with a mix of architectural styles to encourage rapid and eclectic growth
- C. a reduction in overcrowding and traffic congestion
- D. a city in which leading citizens and businessmen had a large amount of input and control over future growth and planning

5. In contrast to Burnham’s model of urban planning, advocates of the New Urbanism model favored which of the following as a way to create more livable cities?

- A. creating walkable neighborhoods containing a wide range of housing and job types
- B. the destruction of historic buildings and decongestion of the city by increased density and open space by building taller on a smaller footprint
- C. the creation of large conurbations with areas of green space
- D. the creation of cities with vehicular mobility as a principal planning metric

6. Which of the following best characterizes Jane Jacobs’ view of the nature of urban planning?

- A. she believes cities need to be constrained and developed according to rigid rules
- B. she agrees with Burnham’s assessment that overcrowding and traffic are the major problems facing American cities
- C. she advocates allowing cities and neighborhoods to develop organically with few rules and restrictions
- D. she advocates a plan of extreme urban density similar to Le Corbusier

7. Building on the ‘eyes on the street’ concept advanced by Jane Jacobs, Oscar Newman formulated which of the following theories about crime prevention in cities?

- A. neighborhood watch
- B. defensible space theory
- C. broken windows theory
- D. community policing

8. Newman’s theories on crime prevention and the theories of New Urbanism resulted in which of the following changes to federal government housing policy in the United States?

- A. new, higher-density housing projects located in more affluent neighborhoods in large cities
- B. an increase in uniformed police presence in all federally funded housing developments
- C. the elimination of all federally funded public housing
- D. the demolition of older high-rise public housing projects in favor of mixed use, lower-density housing developments

9. All of these are communities planned using the principles of New Urbanism EXCEPT which of the following?
- A. Seaside, Florida
 - B. Celebration, Florida
 - C. the Pruitt-Igoe housing project in St. Louis, MO
 - D. the Mueller Community redevelopment in Austin, TX

10. Which of the following is the term for the scientific study of human settlements?
- A. ekistics
 - B. acrology
 - C. permaculture
 - D. context theory

Questions 11-20 refer to the images in section 2 of the resource booklet. These images show different desert landforms.

11. All of these are depositional landforms EXCEPT which of the following?
- A. 1
 - B. 3
 - C. 4
 - D. 5

12. By what process is the landform in image 6 formed?
- A. chemical weathering
 - B. glaciation
 - C. wind erosion
 - D. thermal stress

13. What type of sand dune is shown in image 5?
- A. seif dune
 - B. barchan dune
 - C. longitudinal dune
 - D. linear dune

14. All of these are true of the steeper slope on the dune in image 5 EXCEPT which of the following?
- A. it faces towards the prevailing wind
 - B. it falls away at the angle of repose of the sand
 - C. it faces the direction of movement of the dune
 - D. it usually has an angle between 30 and 35 degrees

15. Which of the following images shows loess?
- A. 1
 - B. 2
 - C. 3
 - D. 4

16. Which of the following best describes the process by which the desert varnish shown in image 4 is formed?

- A. it is due to the removal of particles by wind
- B. wind or water blowing over loose sediment in either a current or wave pattern
- C. streamlined carving from consolidated material by wind abrasion by dust and sand, and deflation
- D. oxidation of clay particles which have been transported by wind

17. Image 1 shows which of the following?
- A. paha
 - B. sastrugi
 - C. medianos
 - D. yardang

18. Which image shows a formation made by aeolian forces depositing sand grains between and beneath surrounding rocks resulting in the rise of a stony layer?
- A. 1
 - B. 2
 - C. 3
 - D. none of these could be formed by the process described

19. All of these are true of deserts EXCEPT which of the following?
- A. they are classified as BWh and BWk in the Koppen classification system
 - B. they make up roughly 20% of the Earth's surface area
 - C. they receive less than 100mm of precipitation annually
 - D. they are subject to denudation due to lack of vegetation

20. Which of the following is the term for a type of desert landscape consisting of high, largely barren, hard rocky plateaus, where most of the sand has been removed by deflation?
- A. erg
 - B. ventifact
 - C. catenary ripples
 - D. hamada

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

21. All of these are true of the periglacial environment shown in this illustration EXCEPT which of the following?
- A. this environment is most commonly seen in the northern hemisphere
 - B. on mountain ranges, modern periglacial conditions are found nearer the Equator than they are lower down
 - C. the effects of periglaciation are more extreme in coastal areas
 - D. permafrost is much less widespread in the southern hemisphere

22. Which of the following describes the climatic conditions found in periglacial areas?
- A. moderate to high levels of precipitation, usually between 2000 and 3000mm per year on average
 - B. mean average temperature between -1 and -3 degrees Celsius

C. temperature below -10 degrees Celsius for at least six months of the year

D. presence of an active layer of permafrost

23. Which number on the image shows a pingo?

- A. 2
- B. 4
- C. 5
- D. 6

24. Which of the following best describes the formation of a pingo in this environment?

- A. deposition of flour-like silt and clay from formerly submerged braided rivers
- B. the freezing of sub-permafrost groundwater which can result in either hydrostatic or artesian pressure which causes uplift
- C. very irregular surfaces of marshy hollows and small hummocks formed as ice-rich permafrost thaws
- D. a combination of processes including frost action, surface erosion, eluviation, and mass wasting

25. Which of the following is the suspected mechanism behind the formation of both palsas and patterned soil?

- A. fluvio-thermal erosion
- B. methane release
- C. frost heaving
- D. the zero-curtain effect

26. Which number on the image shows an area of patterned soil?

- A. 1
- B. 3
- C. 5
- D. 6

27. Which of the following best defines the term solifluction?

- A. small circular mounds of fresh soil material formed by frost action and cryoturbation
- B. a variant of pediplanation that is restricted to cold climates
- C. a gradual processes in which a mass moves down a slope related to freeze-thaw activity
- D. a mode of the growth of permafrost whereby additional material is deposited to a permafrost site during freezing conditions, causing the permafrost layer to build upwards

28. Which number on the image shows an area in which solifluction has taken place?

- A. 1
- B. 2
- C. 4
- D. 5

29. All of these store large amounts of methane in periglacial environments EXCEPT which of the following?

- A. natural gas deposits
- B. undersea clathrates
- C. permafrost

D. wastewater

30. Roughly what percentage of global methane emissions came from the Arctic region in 2020?

- A. less than 5%
- B. roughly 15%
- C. roughly 25%
- D. over 40%

Questions 31-40 refer to the map in section 4 of the resource booklet.

31. Which of the following best describes the relationship between the census and representation in the United States Congress?

- A. the census has no effect on representation in the United States Congress
- B. there is a reapportionment of representation in the House of Representatives every two years based on census data
- C. there is a reapportionment of representation in the House of Representatives every ten years based on census data
- D. there is reapportionment of representation in both houses of Congress following each census

32. Given the information in the map, which state is expected to lose the most seats in the 2020 House reapportionment?

- A. Texas
- B. Florida
- C. West Virginia
- D. New York

33. Which of the following is closest to the average number of constituents per House member based on the 2010 census?

- A. 500,000
- B. 700,000
- C. 1 million
- D. 1.2 million

34. Given the information in the map, which of the following is likely true about the 2020 reapportionment?

- A. Democrats should gain between 2 and 5 seats in the 118th Congress
- B. Republicans should gain between 2 and 5 seats in the 118th Congress
- C. neither party will likely gain more than 2 seats in the 118th Congress
- D. it is impossible to determine which party will gain or lose seats based on the information on the map

35. Which of the following is true of adjusting Congressional districts following the 2020 census?

- A. gerrymandering of any kind is prohibited in the drawing of Congressional districts
- B. gerrymandering based on racial and ethnic makeup is allowed in order to guarantee representation for certain historically marginalized groups
- C. gerrymandering based on political party affiliation is allowed in redistricting

D. all states have adopted algorithmically based redistricting to avoid political bias or gerrymandering

36. Which of the following demographic trends is most clearly illustrated in this map?

- A. the movement of population from the Rustbelt to the Sunbelt
- B. the rapid growth of urban areas on the coasts and in the northeast
- C. the continuing suburbanization of the United States
- D. the internal migration of African Americans from the rural south to the urban north

37. The least populous congressional district in the United States is located in what state?

- A. Wyoming
- B. North Dakota
- C. Vermont
- D. Rhode Island

38. Gerrymandering is most likely to occur when all of these are true EXCEPT which of the following?

- A. in a majoritarian system where the candidate with the most votes wins the district
- B. in systems with proportional voting
- C. in situations where the party in power has the power to redraw voting districts
- D. in two-party systems

39. All of these are true of the relationship between geographic data and voting districts EXCEPT which of the following?

- A. voter databases combined with modern software has made partisan redistricting much more precise
- B. demographic data like age, education level, income and race can be used to accurately predict partisan voting behavior
- C. despite abundant geographic and demographic data a vast majority of US House districts remain competitive in every election year
- D. Census Bureau data coupled with GPS location data could be used to draw nonpartisan, compact and equal districts

40. The practice of drawing of boundaries, particularly of electoral precincts, states, counties or other municipalities is known by what term?

- A. delimitation
- B. ranked-choice
- C. psephology
- D. crossover