### AGA KHAN UNIVERSITY EXAMINATION BOARD HIGHER SECONDARY SCHOOL CERTIFICATE

#### **CLASS XI**

#### MODEL EXAMINATION PAPER 2023 AND ONWARDS

Time: 1 hour 30 minutes Marks: 50

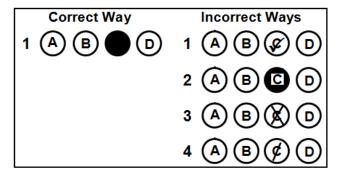
#### **INSTRUCTIONS**

- 1. Read each question carefully.
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- 3. There are 100 answer numbers on the answer sheet. Use answer numbers 1 to 50 only.
- 4. In each question there are four choices A, B, C, D. Choose ONE. On the answer grid black out the circle for your choice with a pencil as shown below.

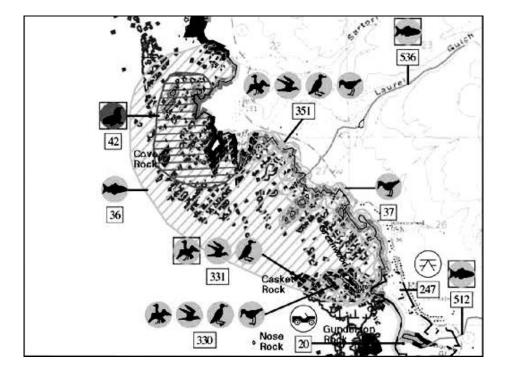


#### Candidate's Signature

- 5. If you want to change your answer, ERASE the first answer completely with a rubber, before blacking out a new circle.
- 6. DO NOT write anything in the answer grid. The computer only records what is in the circles.
- 7. You may use a scientific calculator if you wish.

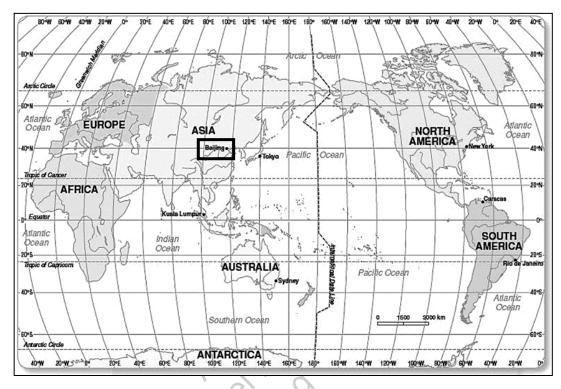
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- 1. With reference to soil compositions of the Earth, a map that reflects the mineral reserves is classified as a
  - A. geo-logical map.
  - B. physiographic map.
  - C. environmental map.
  - D. bio-geographic map.
- 2. Topographic maps are used to show the
  - A. drainage and relief features of an area.
  - B. variation in weather across a certain area.
  - C. variation in income across a geographic area.
  - D. geographic boundaries of the lithospheric plates.
- 3. The given map is categorised as a/ an

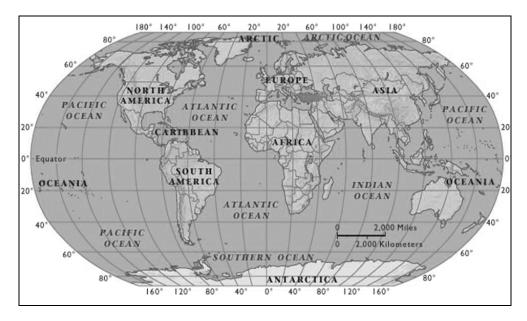


- A. political map.
- B. topographic map.
- C. physiographic map.
- D. environmental map.

4. According to the given map, the city of Beijing lies on the latitude and longitude of



- A. 5°S and 130°E.
- B. 30°S and 150°E.
- C. 40°N and 116°E.
- D. 30°N and 140°E.
- 5. According to the given map, the continent which is situated at the latitude and longitude range of 10°N to 75°N and 60°E to 180°E respectively is



- A. Asia.
- B. Africa.
- C. Europe.
- D. Australia.

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6. The given image shows a compass which is made using the



- sundial method. A.
- B.

- Country A is located at 175°E and Country B is situated at 150°E.

  The time difference between these two country B. 7.

- A. 25 minutes.
- 29 minutes. В.
- 40 minutes. C.
- D. 100 minutes.
- Greenwich is located at  $0^{\circ}$  and Country X is situated at  $105^{\circ}W$ . 8.

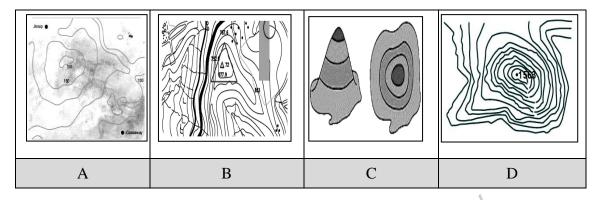
If the time in Greenwich is 12 noon, then the time in Country X would be

- A. 5 am.
- B. 12 noon.
- C. 7 pm.
- 12 midnight. D.
- 9. An architect, while preparing a building plan, kept the width of the front door as 1.86 cm at the drawing scale of 1:50.

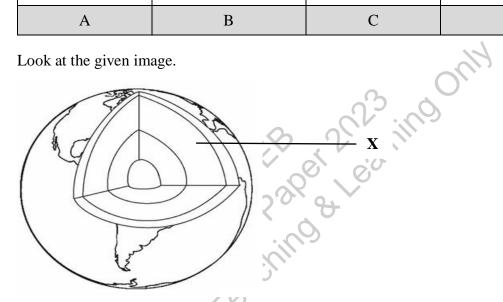
The actual width of the door will be

- A. 0.0372 cm.
- B. 1.86 cm.
- C. 51.86 cm.
- D. 93 cm.
- 10. The distance between point A and point B is 45 miles; whereas on the map, the distance between the two points is 3 cm. What is the scale of the map?
  - A. 1 cm: 15 miles
  - 1 cm: 45 miles B.
  - C. 45 cm: 3 miles
  - D. 135 cm: 1 mile

11. The image that depicts the hill shading method of representing relief is



12. Look at the given image.



The part of the Earth labelled as 'X' is the

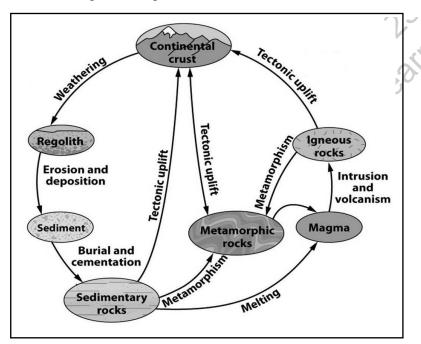
- A. inner core.
- B. outer core.
- C. mantle.
- D. crust.
- 13. Fold mountains are formed when two tectonic plates force sedimentary rocks to
  - A. collide with each other.
  - stay away from each other. B.
  - C. move upwards into a series of folds.
  - D. push downwards into a series of folds.

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- 14. Read the following features of a type of rock.
  - Often contains fossils
  - Has a variety of colours
  - Is layered, flat or curved
  - Usually composed of pieces cemented or pressed together

Which of the following types of rocks possesses the given characteristics?

- A. Igneous rocks
- B. Phonolite rocks
- C. Sedimentary rocks
- D. Metamorphic rocks
- 15. Look at the given image.



The given image depicts the process of

- A. rock cycle.
- B. energy cycle.
- C. ecological cycle.
- D. hydrologic cycle.

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- 16. Read the following characteristics.
  - Have attractive patterns and colours
  - Is hard and durable
  - Can be polished to a high quality finish
  - Used as slabs and tiles for architectural elements

The rock with the given features is identified as

- A. slate.
- B. granite.
- C. pumice.
- D. sandstone.
- 17. The ideal climate for chemical weathering is
  - A. hot and dry.
  - B. cold and dry.
  - C. hot and humid.
  - D. cold and humid.
- 18. The exfoliation of rocks occurs in the area where climate is
  - A. tropical.
  - B. equatorial.
  - C. temperate.
  - D. Mediterranean.
- 19. Read the following characteristics.
  - Fence posts shifting out of alignment
  - Telephone poles tipping downslope
  - Grass covered slope seems to move downhill, forming little bulges in the soil

The given characteristics are the possible effects of mass movement of the Earth's material, known as

- A. rock-falls.
- B. soil creep.
- C. mudflows.
- D. landslides.
- 20. Which of the following statements is TRUE about the parent rock?
  - A. It helps to improve water infiltration in the soil.
  - B. It shows a strong geographical correlation at the global scale.
  - C. Its orientation affects the microclimate which in turn affects vegetation.
  - D. It helps in determining soil properties during the early stages of development.

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- 21. The MAJOR natural agents that cause soil erosion are
  - A. ice and wind.
  - B. ice and gravity.
  - C. running water and wind.
  - D. running water and gravity.
- 22. Asia is located in the
  - A. northern and eastern hemispheres.
  - B. southern and eastern hemispheres.
  - C. northern and western hemispheres.
  - D. southern and western hemispheres.
- 23. Asia is considered as an important continent in the world because it
  - A. has the longest series of coastlines.
  - B. shares borders with Europe and Australia.
  - C. occupies the three-fifths of the eastern Eurasian landmass.
  - D. produces the most homogenous forms of vegetation on Earth.

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- 24. The fold mountains of Himalyan ranges are located in
  - A. Asia.
  - B. Europe.
  - C. Australia.
  - D. South America.
- 25. The LARGEST river of Asia is the
  - A. Yangtze River.
  - B. Yellow River.
  - C. Indus River.
  - D. Kabul River.
- 26. The Congo River is considered significant in Africa because it
  - A. covers parts of three Southern African countries.
  - B. is the largest river of Africa and has many tributaries.
  - C. forms the largest network of navigable water ways in Africa.
  - D. is responsible for Eastern Africa's most-breathtaking scenery.
- 27. The River Nile has great importance in Africa because it
  - A. drains into seven countries and supports millions of people.
  - B. is used to transport the copper production of Katanga to the coast.
  - C. is connected with Lake Victoria for fresh drinking water, food and electricity.
  - D. provides a trade route that connects Africa with markets in Europe and beyond.

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- 28. In North America, the Canadian Shield or Laurentian Plateau plays a KEY role in the economic activity due to
  - A. farming.
  - B. hunting.
  - C. mining.
  - D. fishing.
- 29. The mountain range that runs through the length of the South American Continent is the
  - A. Uluru.
  - B. Andes.
  - C. Rockies.
  - D. Himalayas.
- 30. Read the following statements.
  - It stretches some 4,000 miles (6,400 km) across the equatorial South America.
  - The volume of water it carries surpasses that of all the other rivers, constituting one-fifth of the total flowing fresh water of the world.

The given features describe one of the rivers of South America that is the

- A. Orinoco.
- B. Amazon.
- C. São Francisco.
- D. Río de la Plata.
- 31. Read the following statements.
  - It is the eighth-largest desert in the world.
  - It was inhabited by dinosaurs for more than 65 million years ago.
  - It has imposing Andes on one side and the Atlantic Ocean on the other.

The South American desert described in the given features is

- A. Eastern Patagonian Desert.
- B. La Tatacoa Desert.
- C. Atacama Desert.
- D. Coastal Desert.
- 32. Read the following physical features related to Australia.
  - Made of sandstone
  - The heart of the 'Red Centre'
  - One of the world's largest monoliths

The given physical features refer to

- A. Coral reefs.
- B. Ayers rock.
- C. Western plateau.
- D. Eastern highlands.

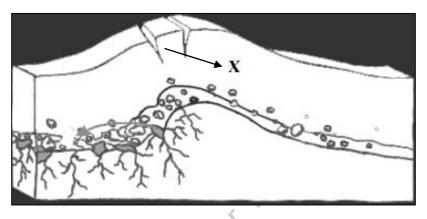
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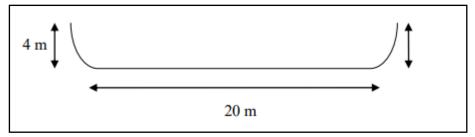
- 33. Which of the following factors determines the volume of a river?
  - A. River gradient, climate and the presence of vegetation
  - B. River gradient, channel roughness and the channel shape
  - C. Size of the drainage basin, presence of vegetation and the climate
  - D. Channel shape, channel roughness and the size of the drainage basin
- 34. If the total length of the river is 100 km and the area of the drainage basin is 10 km<sup>2</sup>, then its drainage density will be

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- A.  $1 \text{ km}^3$ .
- B.  $10 \text{ km/km}^2$
- C.  $100 \text{ km/km}^2$
- D. 1000 km.
- 35. The process of glacial erosion labelled as 'X' in the given figure is



- A. attrition.
- B. plucking.
- C. abrasion.
- D. corrosion.
- 36. The wetted perimeter of the given figure is



- A. 16 m.
- B. 20 m.
- C. 24 m.
- D. 28 m.

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- 37. The process of the river that causes the loads in the river to bump into each other and break into smaller components is
  - A. attrition.
  - B. abrasion.
  - C. corrosion.
  - D. hydraulic action.
- 38. The river deposits its load on the adjoining areas because
  - A. it interacts with the bank and the bed of the river.
  - B. the volume and velocity of the river decreases.
  - C. it contributes to the fertility of the soil.
  - D. the distance of the river varies.
- 39. During the deposition process of the river, clay is deposited
  - A. in the first instance.
  - B. only near the river channels.
  - C. after the deposition of boulders.
  - D. only when the river overflows its banks.
- 40. Which of the following landforms is LEAST likely to be found in the upper course of a river?

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- A. Rapids
- B. Potholes
- C. Waterfalls
- D. Oxbow lakes
- 41. Meanders are formed when a river
  - A. does not erode its bank.
  - B. erodes both banks at the same time.
  - C. deposits the sediments at the river mouth.
  - D. erodes sideways and deposits the sediments on the opposite banks.
- 42. The MAJOR food consumed by the people living in the mountainous regions of Pakistan is
  - A. meat.
  - B. pulses.
  - C. sea food.
  - D. vegetables.
- 43. People living in the plain areas receive a lot of heat from the Sun. The influence of the physical environment on their lifestyle would be that they will wear
  - A. warm clothes and prefer having cold drinks.
  - B. summer clothes and prefer having hot drinks.
  - C. light coloured dresses and prefer eating light foods.
  - D. bright coloured dresses and prefer eating spicy foods.

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44. Asma lives with her family near the Makran coast in Balochistan.

The activities that can be BEST performed in this area by her family independently are

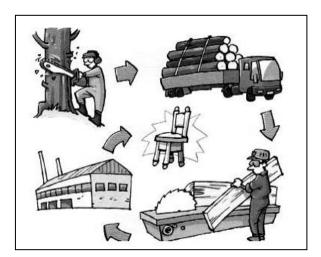
- A. fishing and manufacturing.
- B. hunting and manufacturing.
- C. fishing and livestock farming.
- D. hunting and livestock farming.
- 45. Cotton lint → cotton yarn → towels

In the given chain process, the cotton lint is the product of

- A. primary commercial activity.
- B. secondary commercial activity.
- C. tertiary commercial activity.
- D. quaternary commercial activity.
- 46. Consider the given variety of activities.
  - Retail and wholesale sales, transportation and distribution
  - Entertainment (movies, television, radio, music, theatre, etc.)
  - Restaurants, clerical services, media, tourism, insurance, banking, healthcare and law

All of the given activities can be classified as

- A. primary activities.
- B. secondary activities.
- C. tertiary activities.
- D. quaternary activities.
- 47. The given picture reflects a process of an economic activity of the



- A. primary sector.
- B. secondary sector.
- C. tertiary sector.
- D. quaternary sector.

- 48. The production of cotton garments is BEST suited in a physical environment where
  - A. land is fertile.
  - humidity is high. В.
  - C. temperature is low.
  - D. precipitation is regular.
- 49. It is important to save various water bodies in Pakistan because they
  - can help in producing wind energy. A.
  - В. prevent soil erosion and desertification.
  - C. regularise the pattern of weather in the country.
  - serve as a source of seafood and recreational activities. D.
- 50. Greenhouse effect is PRIMARILY responsible for maintaining the
  - temperature of the Earth. A.
  - B. onset of seasons on the Earth.
  - C. balance in the rate of precipitation.
  - .on. .amosphere. percentage of gases in the atmosphere. D.

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