

UNIT I: GEOTECTONICS

Set I

1. What is the primary driving force behind plate tectonics?

- a) Gravitational attraction
- b) Magnetic repulsion
- c) Convection currents in the mantle
- d) Earth's rotation

Correct Answer: c) Convection currents in the mantle

2. Which of the following is not a type of plate boundary?

- a) Convergent boundary
- b) Divergent boundary
- c) Intraplate boundary
- d) Perpendicular boundary

Correct Answer: d) Perpendicular boundary

3. The Himalayan mountain range was formed due to which type of plate boundary?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Intraplate boundary

Correct Answer: a) Convergent boundary

4. Which tectonic plate is the Pacific Ring of Fire associated with?

- a) North American Plate
- b) Eurasian Plate
- c) Pacific Plate
- d) African Plate

Correct Answer: c) Pacific Plate

5. Which layer of the Earth is responsible for generating the planet's magnetic field?

- a) Crust
- b) Mantle
- c) Outer core
- d) Inner core

Correct Answer: c) Outer core

6. The theory of plate tectonics was largely developed during which decade?

- a) 1950s
- b) 1960s
- c) 1970s
- d) 1980s

Correct Answer: b) 1960s

7. The process by which an oceanic plate sinks beneath a continental plate is known as:

- a) Subduction
- b) Seafloor spreading

c) Rift formation

d) Convection

Correct Answer: a) Subduction

8. Which plate boundary type is characterised by horizontally sliding past each other?

a) Convergent boundary

b) Divergent boundary

c) Transform boundary

d) Rift boundary

Correct Answer: c) Transform boundary

9. The San Andreas Fault in California is an example of which type of plate boundary?

a) Convergent boundary

b) Divergent boundary

c) Transform boundary

d) Rift boundary

Correct Answer: c) Transform boundary

10. Which mountain range is associated with the African Plate's collision with the Eurasian Plate?

a) Andes Mountains

b) Rocky Mountains

c) Alps

d) Appalachian Mountains

Correct Answer: c) Alps

11. What is the main driving force behind the movement of tectonic plates?

- a) Gravitational pull
- b) Earth's magnetic field
- c) Convection currents in the mantle
- d) Solar radiation

Correct Answer: c) Convection currents in the mantle

12. The Mid-Atlantic Ridge is an example of which type of plate boundary?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Rift boundary

Correct Answer: b) Divergent boundary

13. What is the name of the supercontinent that existed over 200 million years ago and eventually broke apart to form the current continents?

- a) Pangaea
- b) Gondwana
- c) Laurasia
- d) Rodinia

Correct Answer: a) Pangaea

14. Which type of plate boundary is associated with the formation of new oceanic crust?

- a) Convergent boundary
- b) Divergent boundary

c) Transform boundary

d) Rift boundary

Correct Answer: b) Divergent boundary

15. What type of stress results in the stretching and thinning of the Earth's crust?

a) Compressive stress

b) Tensile stress

c) Shear stress

d) Isostatic stress

Correct Answer: b) Tensile stress

16. Which of the following is not a feature associated with plate tectonics?

a) Earthquakes

b) Volcanoes

c) Mountains

d) Tornadoes

Correct Answer: d) Tornadoes

17. The concept of continental drift was first proposed by:

a) Alfred Wegener

b) Charles Darwin

c) Isaac Newton

d) James Hutton

Correct Answer: a) Alfred Wegener

18. Which ocean basin is shrinking due to the subduction of the Pacific Plate beneath the North American Plate?

- a) Atlantic Ocean
- b) Indian Ocean
- c) Pacific Ocean
- d) Arctic Ocean

Correct Answer: a) Pacific Ocean

19. The East African Rift Valley is an example of which type of plate boundary?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Intraplate boundary

Correct Answer: b) Divergent boundary

20. Which seismic wave is responsible for causing the most damage during an earthquake?

- a) P-wave (Primary wave)
- b) S-wave (Secondary wave)
- c) Love wave
- d) Rayleigh wave

Correct Answer: b) S-wave (Secondary wave)

21. The process of seafloor spreading is associated with which type of plate boundary?

- a) Convergent boundary
- b) Divergent boundary

c) Transform boundary

d) Intraplate boundary

Correct Answer: b) Divergent boundary

22. Which of the following is a major tectonic plate boundary that runs through the Himalayan region?

a) Eurasian Plate - African Plate

b) Eurasian Plate - Indian Plate

c) Pacific Plate - Australian Plate

d) South American Plate - Nazca Plate

Correct Answer: b) Eurasian Plate - Indian Plate

23. What type of boundary is associated with the formation of deep ocean trenches?

a) Convergent boundary

b) Divergent boundary

c) Transform boundary

d) Rift boundary

Correct Answer: a) Convergent boundary

24. The theory of plate tectonics provides an explanation for the distribution of:

a) Ocean currents

b) Volcanoes

c) Planetary orbits

d) Solar flares

Correct Answer: b) Volcanoes

25. Which layer of the Earth is primarily composed of solid iron and nickel?

- a) Crust
- b) Mantle
- c) Outer core
- d) Inner core

Correct Answer: d) Inner core

26. What type of boundary is associated with earthquakes along the San Andreas Fault in California?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Rift boundary

Correct Answer: c) Transform boundary

27. The Himalayan mountain range is still growing in height due to ongoing:

- a) Convergence of tectonic plates
- b) Divergence of

tectonic plates

- c) Uplift by volcanic activity
- d) Erosion by rivers

Correct Answer: a) Convergence of tectonic plates

28. Which of the following is not a type of plate movement?

- a) Subduction

- b) Rifting
- c) Sliding
- d) Expansion

Correct Answer: d) Expansion

29. The Great Rift Valley in East Africa is an example of a continental:

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Intraplate boundary

Correct Answer: b) Divergent boundary

30. What type of plate boundary is responsible for the formation of island arcs?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Rift boundary

Correct Answer: a) Convergent boundary

31. The theory of plate tectonics helps explain the distribution of:

- a) Meteorites
- b) Volcanoes
- c) Fossils
- d) Icebergs

Correct Answer: c) Fossils

32. Which of the following is not a type of plate boundary collision?

- a) Oceanic-Continental
- b) Oceanic-Oceanic
- c) Continental-Continental
- d) Intraplate

Correct Answer: d) Intraplate

33. Which scientist proposed the concept of "sea-floor spreading" to support the theory of plate tectonics?

- a) Alfred Wegener
- b) Charles Darwin
- c) Harry Hess
- d) Isaac Newton

Correct Answer: c) Harry Hess

34. The process of subduction is associated with which type of plate boundary?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Rift boundary

Correct Answer: a) Convergent boundary

35. Which of the following is a major tectonic plate boundary that runs through the Himalayan region?

- a) Eurasian Plate - African Plate
- b) Eurasian Plate - Indian Plate
- c) Pacific Plate - Australian Plate

d) South American Plate - Nazca Plate

Correct Answer: b) Eurasian Plate - Indian Plate

36. What is the term for the slow, continuous bending of rock layers due to stress?

a) Folding

b) Faulting

c) Fracturing

d) Erosion

Correct Answer: a) Folding

37. The formation of the Hawaiian Islands is attributed to:

a) Convergent plate boundary

b) Divergent plate boundary

c) Hotspot volcanism

d) Transform plate boundary

Correct Answer: c) Hotspot volcanism

38. Which of the following is not a driving force behind plate tectonics?

a) Gravitational pull

b) Ridge push

c) Slab pull

d) Plate drag

Correct Answer: d) Plate drag

39. Which type of boundary is responsible for the formation of the Andes Mountains in South America?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Rift boundary

Correct Answer: a) Convergent boundary

40. Which of the following is not a mechanism for plate motion?

- a) Ridge push
- b) Slab pull
- c) Plate push
- d) Mantle convection

Correct Answer: c) Plate push

41. The East African Rift Valley is an example of which type of plate boundary?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Intraplate boundary

Correct Answer: b) Divergent boundary

42. The Wilson Cycle describes the life cycle of:

- a) Volcanoes
- b) Earthquakes
- c) Tectonic plates
- d) Oceans and continents

Correct Answer: d) Oceans and continents

43. The San Andreas Fault in California is an example of which type of plate boundary?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Rift boundary

Correct Answer: c) Transform boundary

44. What is the name of the supercontinent that existed over 200 million years ago and eventually broke apart to form the current continents?

- a) Pangaea
- b) Gondwana
- c) Laurasia
- d) Rodinia

Correct Answer: a) Pangaea

45. Which of the following is not a feature associated with plate tectonics?

- a) Earthquakes
- b) Volcanoes
- c) Mountains
- d) Tornadoes

Correct Answer: d) Tornadoes

46. The concept of continental drift was first proposed by:

- a) Alfred Wegener

b) Charles Darwin

c) Isaac Newton

d) James Hutton

Correct Answer: a) Alfred Wegener

47. Which ocean basin is shrinking due to the subduction of the Pacific Plate beneath the North American Plate?

a) Atlantic Ocean

b) Indian Ocean

c) Pacific Ocean

d) Arctic Ocean

Correct Answer: a) Pacific Ocean

48. The theory of plate tectonics provides an explanation for the distribution of:

a) Ocean currents

b) Volcanoes

c) Planetary orbits

d) Solar flares

Correct Answer: b) Volcanoes

49. Which layer of the Earth is primarily composed of solid iron and nickel?

a) Crust

b) Mantle

c) Outer core

d) Inner core

Correct Answer: d) Inner core

50. What type of plate boundary is responsible for the formation of island arcs?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Rift boundary

Correct Answer: a) Convergent boundary

DEPARTMENT OF GEOGRAPHY, HMMCW

Set II

1. Which type of tectonic plate boundary is characterized by plates moving away from each other?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Intraplate boundary

Correct Answer: b) Divergent boundary

2. The process of seafloor spreading is associated with the formation of:

- a) Fold mountains
- b) Rift valleys
- c) Mid-ocean ridges
- d) Deep ocean trenches

Correct Answer: c) Mid-ocean ridges

3. Which theory proposed the idea that continents were once part of a supercontinent called "Pangaea"?

- a) Plate tectonics theory
- b) Seafloor spreading theory
- c) Continental drift theory
- d) Subduction theory

Correct Answer: c) Continental drift theory

4. What type of plate boundary is responsible for the formation of volcanic island chains?

a) Convergent boundary

b) Divergent boundary

c) Transform boundary

d) Rift boundary

Correct Answer: a) Convergent boundary

5. The formation of the Himalayan Mountains is the result of the collision between which two tectonic plates?

a) Eurasian Plate and Indian Plate

b) North American Plate and Pacific Plate

c) African Plate and South American Plate

d) Australian Plate and Antarctic Plate

Correct Answer: a) Eurasian Plate and Indian Plate

6. What type of stress results in the folding of rock layers?

a) Compressive stress

b) Tensile stress

c) Shear stress

d) Isostatic stress

Correct Answer: a) Compressive stress

7. Which type of fault occurs when rocks on either side of the fault move horizontally past each other?

a) Normal fault

b) Reverse fault

c) Strike-slip fault

d) Thrust fault

Correct Answer: c) Strike-slip fault

8. The process of subduction is responsible for the formation of:

- a) Oceanic trenches
- b) Rift valleys
- c) Mid-Atlantic Ridge
- d) Transform faults

Correct Answer: a) Oceanic trenches

9. What type of boundary is associated with the formation of the East Pacific Rise?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Intraplate boundary

Correct Answer: b) Divergent boundary

10. Which seismic waves are the fastest and can travel through both solids and liquids?

- a) P-waves (Primary waves)
- b) S-waves (Secondary waves)
- c) Love waves
- d) Rayleigh waves

Correct Answer: a) P-waves (Primary waves)

11. The Ring of Fire is a region known for:

- a) High volcanic activity and earthquakes

b) Intense hurricanes and tornadoes

c) Extreme cold temperatures

d) Rapid erosion of coastlines

Correct Answer: a) High volcanic activity and earthquakes

12. The Mid-Atlantic Ridge is a divergent boundary that runs through the middle of which ocean?

a) Atlantic Ocean

b) Indian Ocean

c) Pacific Ocean

d) Arctic Ocean

Correct Answer: a) Atlantic Ocean

13. The San Andreas Fault is primarily associated with which state in the United States?

a) California

b) Florida

c) Texas

d) New York

Correct Answer: a) California

14. Which type of plate boundary is responsible for the formation of deep ocean trenches?

a) Convergent boundary

b) Divergent boundary

c) Transform boundary

d) Rift boundary

Correct Answer: a) Convergent boundary

15. Which major tectonic plate includes most of the continent of Africa?

- a) Eurasian Plate
- b) African Plate
- c) Pacific Plate
- d) South American Plate

Correct Answer: b) African Plate

16. What is the term for the process by which one tectonic plate descends beneath another into the mantle?

- a) Seafloor spreading
- b) Subduction
- c) Rifting
- d) Convection

Correct Answer: b) Subduction

17. The Himalayan Mountain range is part of a larger mountain system known as:

- a) The Andes
- b) The Alps
- c) The Tien Shan
- d) The Himalaya-Karakoram Range

Correct Answer: d) The Himalaya-Karakoram Range

18. Which type of boundary is associated with the formation of the Rocky Mountains in North America?

a) Convergent boundary

b) Divergent boundary

c) Transform boundary

d) Rift boundary

Correct Answer: a) Convergent boundary

19. The concept of plate tectonics has revolutionized the understanding of Earth's:

a) Climate

b) Magnetic field

c) Interior structure

d) Moon phases

Correct Answer: c) Interior structure

20. The East African Rift Valley is an example of a continental:

a) Convergent boundary

b) Divergent boundary

c) Transform boundary

d) Intraplate boundary

Correct Answer: b) Divergent boundary

21. Which plate boundary type is associated with island arc formation?

a) Convergent boundary

b) Divergent boundary

c) Transform boundary

d) Rift boundary

Correct Answer: a) Convergent boundary

22. The theory of plate tectonics helps explain the distribution of:

- a) Meteorites
- b) Volcanoes
- c) Fossils
- d) Icebergs

Correct Answer: c) Fossils

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a) Pangaea

b) Gondwana

c) Laurasia

d) Rodinia

Correct Answer: a) Pangaea

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b) Volcanoes

c) Mountains

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Correct Answer: d) Tornadoes

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Correct Answer: a) Pacific Ocean

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c) Planetary orbits

d) Solar flares

Correct Answer: b) Volcanoes

31. Which layer of the Earth is primarily composed of solid iron and nickel?

a) Crust

b) Mantle

c) Outer core

d) Inner core

Correct Answer: d) Inner core

32. What type of plate boundary is responsible for the formation of island arcs?

a) Convergent boundary

b) Divergent boundary

c) Transform boundary

d) Rift boundary

Correct Answer: a) Convergent boundary

33. The Wilson Cycle describes the life cycle of:

- a) Volcanoes
- b) Earthquakes
- c) Tectonic plates
- d) Oceans and continents

Correct Answer: d) Oceans and continents

34. The San Andreas Fault in California is an example of which type of plate boundary?

- a) Convergent boundary
- b) Divergent boundary
- c) Transform boundary
- d) Rift boundary

Correct Answer: c) Transform boundary

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Correct Answer: c) Transform boundary

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c) Planetary orbits

d) Solar flares

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a) Crust

b) Mantle

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d) Inner core

Correct Answer: d) Inner core

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a) Convergent boundary

b) Divergent boundary

c) Transform boundary

d) Rift boundary

Correct Answer: a) Convergent boundary