

Test Paper : II  
Test Subject : EARTH SCIENCES  
Test Subject Code : K-3214

Test Booklet Serial No. : \_\_\_\_\_  
OMR Sheet No. : \_\_\_\_\_  
Roll No. 

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(Figures as per admission card)

**Name & Signature of Invigilator/s**

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

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

**Paper : II**  
**Subject : EARTH SCIENCES**

Time : 1 Hour 15 Minutes

Maximum Marks : 100

Number of Pages in this Booklet : 8

Number of Questions in this Booklet : 50

**ಅಭ್ಯರ್ಥಿಗಳಿಗೆ ಸೂಚನೆಗಳು**

- ಈ ಪುಟದ ಮೇಲ್ಭಾಗದಲ್ಲಿ ಒದಗಿಸಿದ ಸ್ಥಳದಲ್ಲಿ ನಿಮ್ಮ ರೋಲ್ ನಂಬರನ್ನು ಬರೆಯಿರಿ.
- ಈ ಪತ್ರಿಕೆಯು ಬಹು ಆಯ್ಕೆ ವಿಧದ ಐವತ್ತು ಪ್ರಶ್ನೆಗಳನ್ನು ಒಳಗೊಂಡಿದೆ.
- ಪರೀಕ್ಷೆಯ ಪ್ರಾರಂಭದಲ್ಲಿ ಪ್ರಶ್ನೆಪುಸ್ತಕವನ್ನು ನಿಮಗೆ ನೀಡಲಾಗುವುದು. ಮೊದಲ 5 ನಿಮಿಷಗಳಲ್ಲಿ ನೀವು ಪುಸ್ತಕವನ್ನು ತೆರೆಯಲು ಮತ್ತು ಕೆಳಗಿನಂತೆ ಕಡ್ಡಾಯವಾಗಿ ಪರಿಶೀಲನೆ ಕೋರಲಾಗಿದೆ.  
(i) ಪ್ರಶ್ನೆಪುಸ್ತಕದ ಪ್ರವೇಶಾವಕಾಶ ಪಡೆಯಲು, ಈ ಹೊದಿಕೆ ಪುಟದ ಅಂಚಿನ ಮೇಲಿರುವ ಪೇಪರ್ ಸೀಲನ್ನು ಹರಿಯಿರಿ. ಸ್ವಿಚ್ಚರ್ ಸೀಲ್ ಇಲ್ಲದ ಪ್ರಶ್ನೆಪುಸ್ತಕ ಸ್ವೀಕರಿಸಬೇಡಿ. ತೆರೆದ ಪುಸ್ತಕವನ್ನು ಸ್ವೀಕರಿಸಬೇಡಿ.  
(ii) ಪುಸ್ತಕದಲ್ಲಿನ ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ ಮತ್ತು ಪುಟಗಳ ಸಂಖ್ಯೆಯನ್ನು ಮುಖಪುಟದ ಮೇಲೆ ಮುದ್ರಿಸಿದ ಮಾಹಿತಿಯೊಂದಿಗೆ ತಾಳೆ ನೋಡಿ. ಪುಟಗಳು/ಪ್ರಶ್ನೆಗಳು ಕಾಣೆಯಾದ, ಅಥವಾ ದ್ವಿಪ್ರತಿ ಅಥವಾ ಅನುಕ್ರಮವಾಗಿಲ್ಲದ ಅಥವಾ ಇತರ ಯಾವುದೇ ವ್ಯತ್ಯಾಸದ ದೋಷಪೂರಿತ ಪುಸ್ತಕವನ್ನು ಕೂಡಲೇ 5 ನಿಮಿಷದ ಅವಧಿ ಒಳಗೆ, ಸಂವೀಕ್ಷಕರಿಂದ ಸರಿ ಇರುವ ಪುಸ್ತಕಕ್ಕೆ ಬದಲಾಯಿಸಿಕೊಳ್ಳಬೇಕು. ಆ ಬಳಿಕ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ಬದಲಾಯಿಸಲಾಗುವುದಿಲ್ಲ, ಯಾವುದೇ ಹೆಚ್ಚು ಸಮಯವನ್ನೂ ಕೊಡಲಾಗುವುದಿಲ್ಲ.
- ಪ್ರತಿಯೊಂದು ಪ್ರಶ್ನೆಗೂ (A), (B), (C) ಮತ್ತು (D) ಎಂದು ಗುರುತಿಸಿದ ನಾಲ್ಕು ಪರ್ಯಾಯ ಉತ್ತರಗಳಿವೆ. ನೀವು ಪ್ರಶ್ನೆಯ ಎದುರು ಸರಿಯಾದ ಉತ್ತರದ ಮೇಲೆ, ಕೆಳಗೆ ಕಾಣಿಸಿದಂತೆ ಅಂಡಾಕೃತಿಯನ್ನು ಕವಚಿಸಬೇಕು.  
ಉದಾಹರಣೆ: 

A	B	●	D
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(C) ಸರಿಯಾದ ಉತ್ತರವಾಗಿದ್ದಾಗ.
- ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ I ರಲ್ಲಿ ಕೊಟ್ಟಿರುವ OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ, ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ I ಮತ್ತು ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ II ರಲ್ಲಿ ಇರುವ ಪ್ರಶ್ನೆಗಳಿಗೆ ನಿಮ್ಮ ಉತ್ತರಗಳನ್ನು ಸೂಚಿಸತಕ್ಕದ್ದು. OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ ಅಂಡಾಕೃತಿಯಲ್ಲದೆ ಬೇರೆ ಯಾವುದೇ ಸ್ಥಳದಲ್ಲಿ ಉತ್ತರವನ್ನು ಗುರುತಿಸಿದರೆ, ಅದರ ಮೌಲ್ಯಮಾಪನ ಮಾಡಲಾಗುವುದಿಲ್ಲ.
- OMR ಉತ್ತರ ಹಾಳೆಯಲ್ಲಿ ಕೊಟ್ಟ ಸೂಚನೆಗಳನ್ನು ಜಾಗರೂಕತೆಯಿಂದ ಓದಿರಿ.
- ಎಲ್ಲಾ ಕರಡು ಕೆಲಸವನ್ನು ಪುಸ್ತಕವು ಕೊನೆಯಲ್ಲಿ ಮಾಡತಕ್ಕದ್ದು.
- ನಿಮ್ಮ ಗುರುತನ್ನು ಬಹಿರಂಗಪಡಿಸಬಹುದಾದ ನಿಮ್ಮ ಹೆಸರು ಅಥವಾ ಯಾವುದೇ ಚಿಹ್ನೆಯನ್ನು ಸಂಗತವಾದ ಸ್ಥಳ ಹೊರತು ಪಡಿಸಿ, OMR ಉತ್ತರ ಹಾಳೆಯ ಯಾವುದೇ ಭಾಗದಲ್ಲಿ ಬರೆಯಬೇಡಿ, ನೀವು ಅನರ್ಹತೆಗೆ ಬಾಧ್ಯರಾಗಿರುತ್ತೀರಿ.
- ಪರೀಕ್ಷೆಯು ಮುಗಿದನಂತರ, ಕಡ್ಡಾಯವಾಗಿ OMR ಉತ್ತರ ಹಾಳೆಯನ್ನು ಸಂವೀಕ್ಷಕರಿಗೆ ನೀವು ಹಿಂತಿರುಗಿಸಬೇಕು ಮತ್ತು ಪರೀಕ್ಷಾ ಕೊಠಡಿಯ ಹೊರಗೆ OMR ನ್ನು ನಿಮ್ಮೊಂದಿಗೆ ಕೊಂಡೊಯ್ಯ ಕೂಡದು.
- ಪರೀಕ್ಷೆಯ ನಂತರ, ಪರೀಕ್ಷಾ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ಮತ್ತು ನಕಲು OMR ಉತ್ತರ ಹಾಳೆಯನ್ನು ನಿಮ್ಮೊಂದಿಗೆ ತೆಗೆದುಕೊಂಡು ಹೋಗಬಹುದು.
- ನೀಲಿ/ಕಪ್ಪು ಬಾಲ್ ಪಾಯಿಂಟ್ ಪೆನ್ ಮಾತ್ರವೇ ಉಪಯೋಗಿಸಿರಿ.
- ಕ್ಯಾಲ್ಕುಲೇಟರ್ ಅಥವಾ ಲಾಗ್ ಟೇಬಲ್ ಇತ್ಯಾದಿಯ ಉಪಯೋಗವನ್ನು ನಿಷೇಧಿಸಲಾಗಿದೆ.
- ಸರಿ ಅಲ್ಲದ ಉತ್ತರಗಳಿಗೆ ಋಣ ಅಂಕ ಇರುವುದಿಲ್ಲ.

**Instructions for the Candidates**

- Write your roll number in the space provided on the top of this page.
- This paper consists of fifty multiple-choice type of questions.
- At the commencement of examination, the question booklet will be given to you. In the first 5 minutes, you are requested to open the booklet and compulsorily examine it as below :  
(i) To have access to the Question Booklet, tear off the paper seal on the edge of this cover page. Do not accept a booklet without sticker-seal and do not accept an open booklet.  
(ii) **Tally the number of pages and number of questions in the booklet with the information printed on the cover page. Faulty booklets due to pages/questions missing or duplicate or not in serial order or any other discrepancy should be got replaced immediately by a correct booklet from the invigilator within the period of 5 minutes. Afterwards, neither the Question Booklet will be replaced nor any extra time will be given.**
- Each item has four alternative responses marked (A), (B), (C) and (D). You have to darken the oval as indicated below on the correct response against each item.  
**Example :**

A	B	●	D
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where (C) is the correct response.
- Your responses to the questions are to be indicated in the **OMR Sheet kept inside the Paper I Booklet only**. If you mark at any place other than in the ovals in the Answer Sheet, it will not be evaluated.
- Read the instructions given in OMR carefully.
- Rough Work is to be done in the end of this booklet.
- If you write your name or put any mark on any part of the OMR Answer Sheet, except for the space allotted for the relevant entries, which may disclose your identity, you will render yourself liable to disqualification.
- You have to return the test OMR Answer Sheet to the invigilators at the end of the examination compulsorily and must NOT carry it with you outside the Examination Hall.
- You can take away question booklet and carbon copy of OMR Answer Sheet soon after the examination.
- Use only Blue/Black Ball point pen.**
- Use of any calculator or log table etc., is prohibited.**
- There is no negative marks for incorrect answers.**



**EARTH SCIENCES**  
**Paper – II**

**Note :** This paper contains **fifty (50)** objective type questions. **Each** question carries **two (2)** marks. **All** questions are **compulsory**.

1. The heat that caused melting in the Earth's early history was supplied from which of the following events
  - (A) Volcanic activity and radioactivity
  - (B) Solar heating and volcanic activity
  - (C) Large bolide impact and radioactivity
  - (D) Large bolide impact and solar heating
2. The process by which an originally homogeneous earth developed a dense core, mantle and a light crust is called
  - (A) Metamorphism
  - (B) Differentiation
  - (C) Metasomatism
  - (D) Compression
3. Uniformitarianism states
  - (A) "Everything tends toward stable equilibrium"
  - (B) "The present is key to the past"
  - (C) "The present is key to the future"
  - (D) "Order comes out of chaos"
4. The upper mantle has
  - (A) Granitic composition
  - (B) Basic composition
  - (C) Ultramafic composition
  - (D) Felsic composition
5. The asthenosphere exists below the \_\_\_\_\_
  - (A) Crust
  - (B) Lithosphere
  - (C) Sial
  - (D) Lower mantle
6. The approximate density of the earth is
  - (A) 5.5 g/cc
  - (B) 5.8 g/cc
  - (C) 5.1 g/cc
  - (D) 5.2 g/cc
7. Shear zones are normally produced during
  - (A) Brittle deformation
  - (B) Ductile deformation
  - (C) Cooling and contraction of rocks
  - (D) Sagging of rocks



8. If the beds are repeating on the surface, they could indicate
- (A) Columnar jointing in the bed rocks
  - (B) A thrust faulting of beds
  - (C) Intense shear of bed rocks
  - (D) Folding of the beds
9. The upper shell of the earth up to 100 km depth is called
- (A) Crust
  - (B) Lithosphere
  - (C) Biosphere
  - (D) Asthenosphere
10. The most abundant sedimentary rock found in the Earth's crust is
- (A) Shale
  - (B) Sandstone
  - (C) Limestone
  - (D) Conglomerates and Breccias
11. The majority of crustal rocks composed of minerals that belong to the family of
- (A) Silicates
  - (B) Sulfides
  - (C) Oxides
  - (D) Sulfates
12. Mylonite and gouge normally indicate
- (A) Intense folding
  - (B) Faulting
  - (C) Jointing
  - (D) Fracturing
13. Of the following, the rock that is most resistant to both chemical and mechanical weathering is
- (A) Shale
  - (B) Limestone
  - (C) Marble
  - (D) Quartzite
14. Low precipitation and high evaporation rate are characteristic features of the \_\_\_\_\_ environment.
- (A) Lacustrine
  - (B) Fluvial
  - (C) Desert
  - (D) Coastal
15. The sediments that a stream carries along the bottom of the stream channel
- (A) Bottom load
  - (B) Suspended load
  - (C) Bed load
  - (D) Fine load
16. The vertical distance between the trough point and the summit point of the ripple is called
- (A) Ripple length
  - (B) Ripple height
  - (C) Summit point
  - (D) Toe point



17. Which of the following process does not occur during diagenesis ?
- (A) Compaction
  - (B) Cementation
  - (C) Lithification
  - (D) Metamorphism
18. Landform formed due to the action of running water is called
- (A) Desert
  - (B) Aeolian
  - (C) Fluvial
  - (D) Lacustrine
19. \_\_\_\_\_ is the point on earth above the focus of an earthquake.
- (A) Epicentre
  - (B) Centre of gravity
  - (C) Focal point
  - (D) Stress location
20. The descent of oceanic lithosphere into the mantle is the process of \_\_\_\_\_
- (A) Accretion
  - (B) Subduction
  - (C) Divergence zone
  - (D) Contraction fault
21. Which of the following features is not associated with a convergent plate boundary ?
- (A) A mid-ocean ridge
  - (B) An earthquake
  - (C) A deep-sea trench zone
  - (D) Volcanic activity
22. How thick is the crust of the Earth ?
- (A) about 4 miles
  - (B) about 4 km
  - (C) about 40 km
  - (D) about 400 km
23. The Tethys was located between
- (A) North America and South America
  - (B) North America and Eurasia
  - (C) Eurasia and Africa
  - (D) Antarctica and Australia
24. The most violent volcanoes are referred to as
- (A) Strombolian type
  - (B) Vesuvian type
  - (C) Hawaiian type
  - (D) Pelean type
25. The layer in which ozone is present is called
- (A) Troposphere
  - (B) Stratosphere
  - (C) Mesosphere
  - (D) Exosphere
26. The two most predominant green house gases are
- (A)  $\text{CO}_2$  and  $\text{CFC}_5$
  - (B)  $\text{CO}_2$  and  $\text{CH}_4$
  - (C)  $\text{CO}_2$  and  $\text{CO}$
  - (D)  $\text{CO}_2$  and  $\text{SO}_2$



27. A dense mass of water on smoke or dust particles in the lower atmospheric layers constitute
- (A) Fog
  - (B) Frost
  - (C) Blizzard
  - (D) Mist
28. What fraction of solar radiation arriving at the top of the atmosphere is absorbed at the earth's surface ?
- (A) 70%
  - (B) 50%
  - (C) 30%
  - (D) 20%
29. Which one of the following is not due to human influence ?
- (A) Greenhouse effect
  - (B) Deforestation
  - (C) Contamination of hydrosphere
  - (D) Formation of jet streams
30. Ozone layer depletion is related to
- (A) Excess carbon dioxide accumulation in the atmosphere
  - (B) Higher solar heat radiation
  - (C) Cooling of the earth
  - (D) Desert storms
31. Excluding the oceans, the largest reservoir of water in the hydrosphere is
- (A) Ground water
  - (B) Lakes and streams
  - (C) Atmosphere
  - (D) Polar ice
32. Which of the following is not a component of hydrosphere ?
- (A) Sea ice
  - (B) Tropical rainstorm
  - (C) Soil
  - (D) Hail
33. What do we call an area of land that receives the runoff ?
- (A) Watershed
  - (B) Estuary
  - (C) Niche
  - (D) Water landscape
34. Chloride and salinity of sea water is expressed in
- (A) Grams per ton
  - (B) Kilogram per ton
  - (C) Grams per kilograms
  - (D) Miligrams per gram
35. The hydrosphere is the
- (A) Continuous shell of water
  - (B) Discontinuous shell of water
  - (C) Uniform shell of water
  - (D) Both (A) and (B)



36. Lenses of low permeability rocks within the permeable ones may result in the formation of
- (A) an artesian system
  - (B) a confined aquifer
  - (C) an aquiclude
  - (D) a perched water table
37. Mesoproterozoic-Neoproterozoic sedimentary basins in the peninsular India are known as
- (A) Purana
  - (B) Dharwars
  - (C) Indo-Gangetic plains
  - (D) Siwalik
38. The southern junction between the Indian and Eurasian plates in the Himalaya has been designated as
- (A) Central Indian Tectonic Zone
  - (B) Indus Tsangpo Suture Zone
  - (C) Main Central Thrust
  - (D) Tso Morari Crystalline
39. Layered Igneous rocks could be good sites for the mineralization of
- (A) Gold
  - (B) Tungsten
  - (C) Chromite
  - (D) Diamonds
40. Which one of the following deposit is conspicuously abundant in India ?
- (A) Nickel
  - (B) Cobalt
  - (C) Aluminum
  - (D) Platinum
41. The tin bearing mineral in the following is
- (A) Sphalerite
  - (B) Smithsonite
  - (C) Pyrrhotite
  - (D) Cassiterite
42. Plateau-like land forms are characteristic of
- (A) Deccan-traps
  - (B) Peninsular gneiss
  - (C) Khondalites
  - (D) Alluvial plains
43. The rapid movement of shallow non-cohesive or loose material down a steep slope following heavy rainfall is called
- (A) Creep
  - (B) Debris flow
  - (C) Flood
  - (D) Landslide
44. What important role do decomposers play in the ecosystem ?
- (A) Predation
  - (B) Pollination
  - (C) Nutrient cycling
  - (D) Symbiosis



45. What is the process that reduces nitrate ( $\text{NO}_3$ ) to gaseous nitrogen ( $\text{N}_2$ ) ?
- (A) Nitrification
  - (B) Nitrofixation
  - (C) Denitrification
  - (D) Assimilation
46. Soil moisture is found in
- (A) Zone of saturation
  - (B) Vadose zone
  - (C) Phreatic zone
  - (D) Below the water table
47. Primary ecological succession may be observed in
- (A) Deep forest
  - (B) New volcanic Islands
  - (C) Coastal areas
  - (D) Delta region
48. The most important Aviation hazard during summer season over North Western India is
- (A) Dust storm
  - (B) Fog
  - (C) Heavy Rain
  - (D) Icing
49. Nuclear clocks help in understanding
- (A) Age of a metamorphic event
  - (B) Ages of igneous rocks and metamorphic events
  - (C) The organic world
  - (D) Structure and evolution of the earth
50. Soil forming process chiefly involves
- (A) Weathering of pre existing igneous rocks
  - (B) Physical and chemical weathering of metamorphic rocks
  - (C) Physical, chemical and biological weathering of rocks
  - (D) Biological and chemical disintegration processes of fractured rocks



Total Number of Pages : 8

ಚಿತ್ತು ಬರಹಕ್ಕಾಗಿ ಸ್ಥಳ  
Space for Rough Work