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FOR KSET PREPARATION

KSET 2023 Earth Sciences Question Paper

EXAM	YEAR	TYPE
KSET	2023	Question Paper

ಕ್ರಮ ಸಂಖ್ಯೆ

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K-SET

ಸ್ಪರ್ಧಾತ್ಮಕ ಪರೀಕ್ಷೆ - 2023

ಪತ್ರಿಕೆ – II

ವರ್ಷನ್ ಸಂಕೇತ

A1

ವಿಷಯ: ಭೂ ವಿಜ್ಞಾನ

ವಿಷಯ ಸಂಕೇತ:32

ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ಸಂಕೇತ	ಅವಧಿ	ಒಟ್ಟು ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ	ಗರಿಷ್ಠ ಅಂಕಗಳು	ನಿಮ್ಮ ನೋಂದಣಿ ಸಂಖ್ಯೆಯನ್ನು ನಮೂದಿಸಿ						
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ಅಭ್ಯರ್ಥಿಗಳಿಗೆ ಸೂಚನೆಗಳು

ಮಾಡಿ:

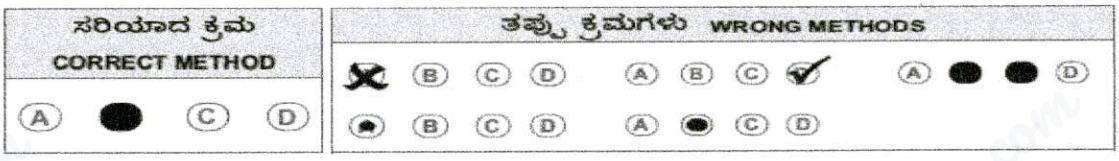
1. ಕೊಠಡಿ ಮೇಲ್ವಿಚಾರಕರು ಈ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ನಿಮಗೆ ಎರಡನೇ ಬೆಲ್ ಆದ ನಂತರ ಕೊಡುತ್ತಾರೆ.
2. ನೊಂದಣಿ ಸಂಖ್ಯೆಯನ್ನು ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಬರೆದು ಅದಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ವೃತ್ತಗಳನ್ನು ಸಂಪೂರ್ಣವಾಗಿ ತುಂಬಿದ್ದೀರೆಂದು ಖಾತ್ರಿಪಡಿಸಿಕೊಳ್ಳತಕ್ಕದ್ದು.
3. ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯ ವರ್ಷನ್ ಕೋಡ್ ಅನ್ನು ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಬರೆದು ಅದಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ವೃತ್ತಗಳನ್ನು ಸಂಪೂರ್ಣವಾಗಿ ತುಂಬಬೇಕು.
4. ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯ ವರ್ಷನ್ ಕೋಡ್ ಮತ್ತು ಕ್ರಮ ಸಂಖ್ಯೆಯನ್ನು ನಾಮಿನಲ್ ರೋಲ್‌ನಲ್ಲಿ ತಪ್ಪಿಲ್ಲದೆ ಬರೆಯಬೇಕು.
5. ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯ ಕೆಳಭಾಗದ ನಿಗದಿತ ಜಾಗದಲ್ಲಿ ಕಡ್ಡಾಯವಾಗಿ ಸಹಿ ಮಾಡಬೇಕು.

ಮಾಡಬೇಡಿ:

1. ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಮುದ್ರಿತವಾಗಿರುವ **ಟೈಮಿಂಗ್ & ಮಾರ್ಕನ್ನು** ತಿದ್ದಬಾರದು / ಹಾಳುಮಾಡಬಾರದು / ಅಳಿಸಬಾರದು.
2. ಮೂರನೇ ಬೆಲ್ ಆಗುವವರೆಗೂ,
   - ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯ ಬಲಭಾಗದಲ್ಲಿರುವ ಸೀಲ್ ಅನ್ನು ತೆಗೆಯಬಾರದು.
   - ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯ ಒಳಗಡೆ ಇರುವ ಪ್ರಶ್ನೆಗಳನ್ನು ನೋಡಲು ಪ್ರಯತ್ನಿಸಬಾರದು ಮತ್ತು ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಉತ್ತರಿಸಲು ಪ್ರಾರಂಭಿಸಬಾರದು.

ಅಭ್ಯರ್ಥಿಗಳಿಗೆ ಮುಖ್ಯ ಸೂಚನೆಗಳು

1. ಪ್ರಶ್ನೆಗಳಲ್ಲಿ ಬಳಸಿರುವ signs and symbols ಗಳನ್ನು, ಬೇರೆ ರೀತಿಯಲ್ಲಿ ಹೇಳದ ಹೊರತು, ನಿಗದಿತ ಪಠ್ಯಪುಸ್ತಕದಲ್ಲಿನ ಅರ್ಥವನ್ನು ಪರಿಗಣಿಸಬೇಕು.
2. ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯಲ್ಲಿ ಒಟ್ಟು **100** ಪ್ರಶ್ನೆಗಳಿದ್ದು, ಪ್ರತಿ ಪ್ರಶ್ನೆಗೂ 4 ಬಹು ಆಯ್ಕೆ ಉತ್ತರಗಳು ಇರುತ್ತವೆ. ಪ್ರತಿ ಪ್ರಶ್ನೆಯ ಕೆಳಗೆ ಕೊಟ್ಟಿರುವ ನಾಲ್ಕು ಬಹು ಆಯ್ಕೆಯ ಉತ್ತರಗಳಲ್ಲಿ ಸರಿಯಾದ ಒಂದು ಉತ್ತರವನ್ನು ಆಯ್ಕೆ ಮಾಡಿ.
3. ಮೂರನೇ ಬೆಲ್ ಆದ ನಂತರ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯ ಬಲಭಾಗದಲ್ಲಿರುವ ಸೀಲ್ ತೆಗೆದು ಈ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯಲ್ಲಿ ಯಾವುದೇ ಪುಟಗಳು ಮುದ್ರಿತವಾಗಿಲ್ಲದೇ ಇರುವುದು ಕಂಡು ಬಂದಲ್ಲಿ ಅಥವಾ ಹರಿದು ಹೋಗಿದ್ದಲ್ಲಿ ಅಥವಾ ಯಾವುದೇ ಆಕ್ಷರಗಳು ಬಿಟ್ಟುಹೋಗಿದ್ದಲ್ಲಿ ಎಂಬುದನ್ನು ಖಚಿತಪಡಿಸಿಕೊಂಡು, ಈ ರೀತಿ ಆಗಿದ್ದರೆ ಪ್ರಶ್ನೆಪತ್ರಿಕೆಯನ್ನು ಬದಲಾಯಿಸಿ ಕೊಳ್ಳುವುದು. ನಂತರ ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಉತ್ತರಿಸಲು ಪ್ರಾರಂಭಿಸುವುದು.
4. ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯಲ್ಲಿನ ಪ್ರಶ್ನೆಗೆ ಅನುಗುಣವಾಗಿರುವ ಸರಿ ಉತ್ತರವನ್ನು ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಅದೇ ಕ್ರಮ ಸಂಖ್ಯೆಯ ಮುಂದೆ ನೀಡಿರುವ ಸಂಬಂಧಿಸಿದ ವೃತ್ತವನ್ನು ನೀಲಿ ಅಥವಾ ಕಪ್ಪು ಬಾಲ್ ಪಾಯಿಂಟ್ ಪೆನ್‌ನಿಂದ ಸಂಪೂರ್ಣ ತುಂಬುವುದು.



5. ಈ ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯನ್ನು ಸ್ಕ್ಯಾನ್ ಮಾಡುವ ಸ್ಕ್ಯಾನರ್ ಬಹಳ ಸೂಕ್ಷ್ಮವಾಗಿದ್ದು ಸಣ್ಣ ಗುರುತನ್ನು ಸಹ ದಾಖಲಿಸುತ್ತದೆ. ಆದ್ದರಿಂದ ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಉತ್ತರಿಸುವಾಗ ಎಚ್ಚರಿಕೆ ವಹಿಸಿ.
6. ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯಲ್ಲಿ ಕೊಟ್ಟಿರುವ ಖಾಲಿ ಜಾಗವನ್ನು ರಫ್ ಕೆಲಸಕ್ಕೆ ಉಪಯೋಗಿಸಿ. ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯನ್ನು ಇದಕ್ಕೆ ಉಪಯೋಗಿಸಬೇಡಿ.
7. **ಕೊನೆಯ ಬೆಲ್ ಆದ ನಂತರ ಉತ್ತರಿಸುವುದನ್ನು ನಿಲ್ಲಿಸಿ, ಓ.ಎಂ.ಆರ್. ಉತ್ತರ ಪತ್ರಿಕೆಯನ್ನು ಕೊಠಡಿ ಮೇಲ್ವಿಚಾರಕರಿಗೆ ಯಥಾಸ್ಥಿತಿಯಲ್ಲಿ ನೀಡಿರಿ.**
8. ಕೊಠಡಿ ಮೇಲ್ವಿಚಾರಕರು ಮೇಲ್ಭಾಗದ ಹಾಳೆಯನ್ನು ಪ್ರತ್ಯೇಕಿಸಿ (ಕಚೇರಿ ಪ್ರತಿ) ತಮ್ಮ ವಶದಲ್ಲಿ ಇಟ್ಟುಕೊಂಡು ತಳಬದಿಯ ಯಥಾಪ್ರತಿಯನ್ನು (ಅಭ್ಯರ್ಥಿಯ ಪ್ರತಿ) ಅಭ್ಯರ್ಥಿಗಳಿಗೆ ಕೊಡುತ್ತಾರೆ.
9. ಎಲ್ಲಾ ಪ್ರಶ್ನೆಗಳಿಗೆ ಸಮಾನ ಅಂಕಗಳಿರುತ್ತದೆ. ಋಣಾತ್ಮಕ ಮೌಲ್ಯಮಾಪನವಿರುವುದಿಲ್ಲ.
10. ಯಾವುದೇ ರೀತಿಯ ಮೊಬೈಲ್ ಫೋನ್, ಕ್ಯಾಲ್ಕುಲೇಟರ್ ಮತ್ತು ಇತರೆ ರೀತಿಯ ಎಲೆಕ್ಟ್ರಾನಿಕ್/ಕಮ್ಯುನಿಕೇಷನ್ ಸಾಧನಗಳು ಇತ್ಯಾದಿಗಳನ್ನು ಪರೀಕ್ಷಾ ಕೇಂದ್ರದ ಅವರಣದೊಳಗೆ ತರುವುದನ್ನು ನಿಷೇಧಿಸಿದೆ.

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1. Which one of the following exhibits maximum half-life period ?

(A) $U^{238} - Pb^{206}$ (B) $U^{235} - Pb^{207}$

(C) $Rb^{87} - Sr^{87}$ (D) $Sm^{147} - Nd^{143}$

2. By which one of the following process organic material becomes a fossil through the replacement of the original material ?

(A) Borings (B) Tracks and trails

(C) Petrification (D) Casts and molds

3. Which one of the following is the smallest geochronologic unit ?

(A) Epoch (B) Period

(C) Age (D) Era

4. In stratigraphy, the upper bed is successively younger than the lower bed. It is known as

(A) Biostratigraphy

(B) Order of superposition

(C) Bedding plane

(D) Graded bedding

5. Who is the leader of the concept Catastrophism ?

(A) Charles Lyell (B) Nicolas Steno

(C) James Hutton (D) Georges Cuvier

6. What are the primary constituents of most rocks on the Earth's surface ?

(A) Water and organic matter (B) Minerals

(C) Fossils (D) Gases

7. What process are responsible for the formation of sedimentary rocks ?

(A) Melting and crystallization

(B) Compaction and cementation

(C) Heat and pressure

(D) Volcanic eruption

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8. A rock or mineral that is of economic value and which can be worked profitably is known as

(A) Rock deposit
(B) Mineral deposit
(C) Mineralization
(D) All of the above

9. Mineral deposit containing valuable elements are called as

(A) Rock formation
(B) Mineral formation
(C) Ore deposit
(D) Gangue

10. The accompanying and unwanted minerals with the ore is called as

(A) Tenor
(B) Value
(C) Mineralization
(D) Gangue

11. A special type of doubly plunging fold that is restricted in the region of high shear is known as

(A) Salt anticline
(B) Fault zone fold
(C) Ptygmatic folds
(D) Sheath folds

12. The study of the past magnetic field of both rocks and the Earth as a whole is called as

(A) Ancient magnetism
(B) Earth magnetism
(C) Paleomagnetism
(D) Continental magnetism

13. The core of the Earth is made up of very heavy material, mostly composed of

(A) Iron and Diamond
(B) Nickel and Iron
(C) Nickel and Chromium
(D) Iron and Chromium

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14. Love waves caused by earthquakes are also called as

(A) P waves (B) S waves

(C) Rayleigh waves (D) All of the above

15. Fault with a dip of about 0° is called as

(A) Sub-horizontal fault (B) Horizontal fault

(C) Vertical fault (D) Reverse fault

16. One atmospheric pressure is equal to _____ inches of mercury.

(A) 29·92 (B) 28·92

(C) 30·91 (D) 27·81

17. The day length will be longest in which of the following cities during Summer Solstice in the Northern hemisphere ?

(A) Moscow (B) Paris

(C) Tokyo (D) Trivandrum

18. The Somali Jet, a narrow low-level, atmospheric jet, during Indian-summer monsoon-season

(A) Strengthens (B) Weakens

(C) Remains the same (D) Reverses

19. The position of the Earth in the orbit during which the length of the day and night are similar is known as _____.

(A) Solstice (B) Aphelion

(C) Perihelion (D) Equinox

20. Among the following, which has the highest percentage contribution to the green house effect ?

(A) Water vapour (B) CFC

(C) Nitrogen (D) Argon

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21. In the production of wave energy, which form of energy is used ?

(A) Potential energy

(B) Kinetic energy

(C) Solar energy

(D) Wind energy

22. Which one of the following helps to identify the objects on the Earth's surface ?

(A) Atmospheric window

(B) Spectral signature

(C) Radiometric error

(D) Wavelength ranges

23. An active volcano, Mauna Loa, is located in

(A) Hawaii, USA

(B) Brazil

(C) Japan

(D) Indonesia

24. Which of the following was India's first Biosphere Reserve ?

(A) Sunderbans

(B) Nanda Devi

(C) Nilgiri

(D) Pachmarhi

25. Vapour of melted metal is known as

(A) Smoke

(B) Smog

(C) Fume

(D) Mist

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26. Which of the following mineral is called as Heavy Spar ?

(A) Barytes

(B) Celestite

(C) Anhydrite

(D) Polyhalite

27. The mineral mica is used in electrical industries because

(A) It is a good conductor of heat and bad conductor of electricity.

(B) It is a good conductor of electricity and bad conductor of heat.

(C) It is a good conductor of both heat and electricity.

(D) It cannot be used because of its fragile nature.

28. The mineral Beryl crystallizes in which of the following system ?

(A) Cubic

(B) Tetragonal

(C) Hexagonal

(D) Orthorhombic

29. Features of some minerals which exhibit breaking along definite smooth planes are called as _____.

(A) Cleavage

(B) Fracture

(C) Cracks

(D) Breakings

30. Which of the following pyroxene shows parallel extinction ?

(A) Diopside

(B) Spodumene

(C) Hypersthene

(D) Augite

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31. Which of the following mineral is used in electronic industries ?

(A) Feldspar (B) Quartz

(C) Garnet (D) Pyroxene

32. Who proposed the concept of supercontinent for the first time ?

(A) Harry Hess

(B) Alfred Wegener

(C) Marjorie Wilson

(D) Arthur Holmes

33. Supercontinent Pangaea began break apart about

(A) 500 million years ago (B) 400 million years ago

(C) 300 million years ago (D) 200 million years ago

34. Supercontinent cycle is well-documented for the last two cycles i.e.

(A) Pangaea and Rodinia

(B) Gondwana and Rodinia

(C) Gondwana-Pangaea and Rodinia

(D) Gondwana and Pangaea

35. The Himalayan mountain range and Tibetan plateau have formed as a result of the

(A) Collision between the Indian plate and Eurasian plate

(B) Collision between the Indian plate and Himalayan plate

(C) Collision between the Indian plate and Asian plate

(D) Collision between the Indian plate and China plate

36. Flat topped Seamounts are called as

(A) Submarine plateau

(B) Volcanic island

(C) Abyssal plains

(D) Guyots

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37. Long submarine mountain ranges that rise about 2 km above abyssal plains are called as

(A) Oceanic mountains

(B) Mid-ocean ridges

(C) Seamounts

(D) Guyots

38. Which of the following fossils are more suitable for biostratigraphic studies of Jurassic of Kutch ?

(A) Ammonites (B) Gastropods

(C) Trilobites (D) Graptolites

39. _____ is the index fossil for Middle Cambrian Period.

(A) Trinucleus (B) Olenellus

(C) Paradoxides (D) Phacops

40. The Lameta beds are well-known for their

(A) Plant fossils (B) Dinosaur eggs

(C) Microfossils (D) Fish remains

41. The term used for the process of organic remains passed from biosphere to lithosphere is

(A) Taphonomy (B) Permineralization

(C) Diagenesis (D) Reworked fossil

42. The most primitive suture line in Trilobites is described as

(A) Hypoparian (B) Opisthoparian

(C) Proparian (D) Gonatoparian

43. Taxodont dentition is observed in

(A) Pecten (B) Arca

(C) Mytilus (D) Inoceramus

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44. If the mean flow velocity is 1 m/s and median grain-size is 1·0 mm, what kind of bedform can form in sediment ?

(A) Dune
(B) Anti-dune
(C) Ripples
(D) Upper plane bed

45. Which one of the following sedimentary structures is referred as 'Signature of Intertidal deposits' ?

(A) Herringbone structure
(B) Stromatolites
(C) Flaser bedding
(D) Mud cracks

46. The concept of sedimentary facies was first introduced by

(A) Amanz Gressly
(B) Folk
(C) Blatt
(D) Ward

47. The youngest volcanic activity in the Indian subcontinent is in the

(A) Sylhet trap
(B) Rajmahal trap
(C) Deccan trap
(D) Panjal trap

48. The upper stage of Papaghni Group consisting of fine glassy limestone with bands of chert and chalcedony is

(A) Gulcheru
(B) Cumbum
(C) Vempalle
(D) Pulivendla

49. In India, the Triassic system of rocks are found as

(A) Marine facies
(B) Marine geosynclinal facies
(C) Marine transgressive facies
(D) Fluvio-lacustrine facies

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50. Charles Darwin Theory of Evolution is the product of which scientific expedition ?

(A) IODP Expedition

(B) Challenger Expedition

(C) Glomar Expedition

(D) HMS Beagle Expedition

51. What is the approximate percentage of area covered by the Pacific Ocean, Atlantic Ocean and Indian Ocean respectively ?

(A) 40%, 30%, 20%

(B) 30%, 25%, 21%

(C) 20%, 18%, 16%

(D) 30%, 21%, 14%

52. What are Phytoplankton ?

(A) Microscopic animal life that floats freely in the sunlit surface waters.

(B) Pollen floating freely in the lighted surface waters.

(C) Microscopic plant life that floats freely in the sunlit surface waters.

(D) Microscopic plant life that is found on the ocean floor.

53. What are the approximate $\delta\ ^{18}O$ values of mixed layer planktonic foraminifera shells of tropical ocean ?

(A) – 30 to – 55%

(B) – 10 to – 4%

(C) – 4 to 0%

(D) 2 to 10%

54. Best foraminiferal proxy for reconstructing summer monsoon variability from marine sediments of the Arabian Sea.

(A) *Globigerinoides ruber*

(B) *Globigerina bulloides*

(C) *Globorotalia menardii*

(D) *Pulleniatina obliquiloculata*

55. The example for hydrogenous (authigenic) marine sediment type is

(A) Calcareous oozes

(B) Siliceous oozes

(C) Quartz sands

(D) Manganese nodules

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56. Stable isotopes are often used to study various Earth system processes. Which stable isotope is frequently employed to analyze the oxygen and carbon cycles ?

(A) Oxygen – 16

(B) Carbon – 12

(C) Nitrogen – 14

(D) Hydrogen – 1

57. What is the process by which the Earth's materials separate into different chemical compositions and layers over time ?

(A) Geochemical mixing

(B) Isotopic fractionation

(C) Geochemical differentiation

(D) Chemical weathering

58. Which term refers to the movement of elements and compounds through the Earth's various reservoirs, such as the atmosphere, oceans and lithosphere ?

(A) Geochemical cycling

(B) Isotope fractionation

(C) Chemical weathering

(D) Crystallisation

59. What is the primary role of Periodic Table in understanding the properties of elements ?

(A) Organising elements by atomic mass

(B) Classifying elements by reactivity

(C) Determining the location of minerals

(D) Predicting the weathering of rocks

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60. In which type of environment would you expect diffusion processes to be most significant ?

(A) Sedimentary

(B) Metamorphic

(C) Igneous

(D) Deep-Sea Hydrothermal

61. What is the role of distribution coefficients in geochemistry ?

(A) To determine the geological cycle of rocks

(B) To calculate the pressure inside the Earth's core

(C) To predict the distribution of elements between phases

(D) To measure the electrical conductivity of minerals

62. Which of the following processes is primarily responsible for the formation of metallic ore deposits ?

(A) Sedimentation

(B) Erosion

(C) Magnetism

(D) Weathering

63. Metallogeny is the study of

(A) Geological structures

(B) Ore mineral properties

(C) The origin and distribution of mineral deposits

(D) Earthquake activity

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64. How does metamorphism typically influence ore deposits ?

(A) It causes ore deposits to melt and disappear

(B) It may alter the mineral composition and texture of ore minerals

(C) It has no significant impact on ore deposits

(D) It accelerates the formation of ore deposits

65. In the context of petroleum exploration, what are "Structural traps" ?

(A) Geological structures that inhibit oil production

(B) Geological structures that trap oil and gas

(C) Layers of sediment that are formed around oil

(D) Fossilized plant remains indicating the presence of oil.

66. Which type of energy resources is stored in the form of frozen water and gas, often found in deep-sea sediments ?

(A) Nuclear energy

(B) Coalbed methane

(C) Gas hydrates

(D) Petroleum

67. What is the primary geological setting for the formation of ferrous (Fe) metals ?

(A) Volcanic environments

(B) Deep-sea hydrothermal vents

(C) Sedimentary basins

(D) Magmatic intrusions

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68. Which of the following geological features are ***not*** typically associated with granite-greenstone belts ?

(A) Greenstone rocks

(B) Volcanic activity

(C) Abundant sedimentary deposits

(D) Ore deposits

69. Significance of the Precambrian-Cambrian boundary :

(A) It makes the time of mass extinction

(B) It represents the beginning of the Cenozoic Era

(C) It corresponds to the formation of the first continent

(D) It signifies the emergence of complex life forms

70. What is the primary focus of research when studying life during the Precambrian Era ?

(A) Studying the evolution of mammals

(B) Examining the fossil record of multicellular organisms

(C) Investigating the origin of life on Earth

(D) Analyzing the behaviour of ancient reptiles

71. In the context of geological time, the Precambrian represents

(A) The most recent era in Earth's history

(B) The earliest part of Earth's history, before the Cambrian

(C) The time when dinosaurs roamed on the Earth

(D) A period of extreme volcanic activity

72. Stratigraphy and geochronology are primarily concerned with

(A) Analysing mineral composition

(B) Studying the history of life on Earth

(C) Understanding the rock layering and dating of geological events

(D) Investigating plate tectonics

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73. Which geological belts are known for their significant lithological, geochemical and stratigraphic characteristics, and often host important ore deposits ?

(A) Volcanic belts
(B) Granite-greenstone belts
(C) Sedimentary basins
(D) Mountain belts

74. Over geologic time, the sea level has fluctuated by hundreds of meters. During the last interglacial (Eemian) sea level was _____.

(A) 149 m below present level
(B) 120 m below present level
(C) 100 m below present level
(D) Almost similar to present level

75. A warm climatic event or period during the last glacial cycle between Eemian to Holocene is popularly known as _____.

(A) Younger Dryas
(B) Bolling-Allerod
(C) Heinrich event
(D) Little ice age

76. Age of a fossil is determined as 51570 years old. What is the remaining % of C-14 in that fossil ?

(A) 5·15%
(B) 3·13%
(C) 0·20%
(D) 10·30%

77. Tree rings are good proxy for past climate. By using available records we can go up to past _____ years.

(A) 100
(B) 1,000
(C) 10,000
(D) 1,00,000

78. Global boundary Stratotype Section and Point (GSSP) for Gelasian Stage is at _____.

(A) Mawmluh
(B) Monte San Nicola
(C) Vrica, Calabria
(D) Ediacaran

79. The appearance of Arctic 'Ice Cap' is about _____ years BP.

(A) 2·6 Ma
(B) 26 Ma
(C) 33 Ma
(D) 66 Ma

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80. What is electromagnetic spectrum ?

(A) A spectrum of colours visible to human eye

(B) A spectrum of sound frequency

(C) A spectrum of nuclear radiation

(D) The range of frequency of EMR

81. What does the term 'Thematic layers' refer to in GIS ?

(A) Geographical regions with distinct theme

(B) Layers of Earth's crust

(C) Layers of the atmosphere

(D) Layers of data representing specific attributes

82. What is the primary focus of engineering geology ?

(A) Studying geological history

(B) Assessing the economic values of minerals

(C) Evaluating the impact of geology on engineering projects

(D) Analyzing ancient rock formations

83. What is the necessity of artificial recharge in coastal areas ?

(A) Store water from run-off

(B) Reduce ground water level

(C) To control seawater intrusion

(D) To permit heat exchange under the surface

84. Residual drawdown measurement is connected to

(A) Recovery of groundwater

(B) Loss of groundwater

(C) No change in groundwater

(D) Loss of surface water

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85. The cause for floods in India is due to

(A) Deforestation

(B) Overpopulation

(C) High temperature

(D) Increasing transportation

86. Atmospheric pressure generated on the Earth's surface is due to :

(A) Earth's rotation

(B) Earth's revolution

(C) Gravitational force of the Earth

(D) Insolation

87. Stream ordering was first introduced by

(A) W.M. Davis

(B) Penck

(C) Horton

(D) Schum

88. Weathering occurring on seafloor is

(A) Saprolite

(B) Exfoliation

(C) Halmyrolysis

(D) Chemical weathering

89. What geological feature is associated with marine magnetic anomalies ?

(A) Mid-ocean ridges

(B) Deep-sea trenches

(C) Subduction zones

(D) Continental rifts

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90. What is the primary goal of inversion techniques in gravity and magnetic methods ?

(A) To increase measurement accuracy

(B) To reduce instrument sensitivity

(C) To reconstruct geological structures

(D) To create magnetic field models

91. What is the primary role of seismometers in seismology ?

(A) Measuring seismic wave amplitude

(B) Predicting earthquakes

(C) Monitoring volcanic eruptions

(D) Analyzing magnetic field amplitude

92. In geophysics what does "Magnetotelluric method" primarily involve ?

(A) Studying Earth magnetosphere

(B) Analyzing magnetic field reversals

(C) Evaluating electrical conductivity variations

(D) Monitoring seismic activity

93. Pick the odd one out :

(A) Skew-T log-P diagram

(B) Tephigram

(C) Emagram

(D) Thermogram

94. What is the percentage of Argon in the atmosphere ?

(A) 0.9% (B) 1.2%

(C) 0.09% (D) 0.2%

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95. _____ is a measure of how strongly an object reflects light from light sources such as the Sun.

(A) Black body
(B) Albedo
(C) Insolation
(D) Solar constant

96. The change in the ratio of the atmospheric concentration of heavy isotopes of carbon by the admixture of large amounts of fossil fuel derived CO_2, which is depleted in $^{13}CO_2$ and contains no $^{14}CO_2$, is known as _____ .

(A) Reservoir effect
(B) Suess effect
(C) Carbon effect
(D) Atmospheric effect

97. What causes the surface ocean currents to be deflected ?

(A) Deep currents
(B) Coriolis effects
(C) Earth's revolution
(D) Global winds

98. The oceanic crust is not older than

(A) Permian
(B) Triassic
(C) Jurassic
(D) Cretaceous

99. Which phase of IOD results in greater than average SST and greater precipitation in the Western Indian Ocean region ?

(A) Positive phase
(B) Negative phase
(C) Neutral phase
(D) El Nino phase

100. Oceanic conveyor belt refers to _____ ocean circulation.

(A) Wind driven
(B) Density driven
(C) Earth's rotation driven
(D) Friction driven

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COMPETITIVE EXAMINATION-2023

PAPER – II

SUBJECT: EARTH SCIENCES **SUBJECT CODE:32**

PAPER CODE	DURATION	TOTAL NO. OF QUESTIONS	MAXIMUM MARKS	MENTION YOUR REGISTER NUMBER
EAR202332	TWO HOURS	100	200	

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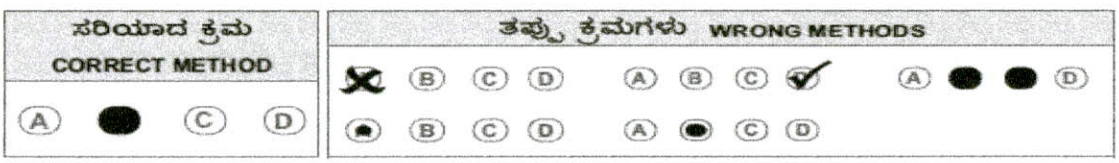
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2. Check whether the Register Number has been entered and shaded in the respective circles on the OMR answer sheet.
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4. The Version Code and Serial Number of this question booklet should also be entered on the Nominal Roll without any mistakes.
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