

BSubject Code :- 21021
વિષય કોડ :- 21021Que. Paper Series
પ્રશ્નપુસ્તિકા કોડGeology
(Science)

1202297822

Candidate's Roll No.



Time : 1 Hours

Total Ques. : 50

Total Marks : 50

Supervisor's Signature

*Do not open the Question Booklet until ask to do so.***Instructions to Candidates / ઉમેદવારોને સૂચના**

- (1) There are 50 questions in the Test Booklet. The answer of each question is any one out of A, B, C and D. Four alternatives are given with the question. You have to answer all the questions.
- (2) Each correct answer carries (1)one mark. For each wrong multiple answer for each question will be treated as wrong. No negative marking for wrong answer.
- (3) You have to answer on the OMR Sheet is given separately to you. For example : Which State of India has the longest Sea Coast ?
(A) Maharashtra (B) Tamil Nadu
(C) Gujarat (D) Andra Pradesh
In OMR Answer Sheet :
 A B C D
The true answer is "C". Hence circle of "C" is blackened (encode).
- (4) Don't write anything on the Test Booklet.
- (5) Use blue/black inked ballpoint pen for filling responses in the OMR Answer Sheet. Any other ink, pen or Pencil is strictly prohibited.
- (6) During exam from candidate, if any false matter, guide, cheats, slips, any handwritten material, any printed material, mobile phone, pager, calculator or any electronic equipments are found he/she will be disqualified.
- (7) Gossips, making noise or disobeying instructions given by Invigilator will be considered disobedience.
- (8) Do Rough Work on last page.

- (1) આ પ્રશ્નપુસ્તિકામાં કુલ 50 પ્રશ્નો છે. પ્રત્યેક પ્રશ્નનો સાચો ઉત્તર A, B, C અને D પૈકી કોઈ એક છે. પ્રશ્નની સાથે જ ચારેય વિકલ્પો આપવામાં આવેલા છે. તમારે બધા જ પ્રશ્નોના ઉત્તર આપવાના છે.
- (2) પ્રત્યેક પ્રશ્નના સાચા ઉત્તર માટે 1(એક) ગુણ છે. એક કરતા વધુ વિકલ્પ ઝાંકી કરનાર જવાબને ખોટો ગણવામાં આવશે. ખોટા જવાબ માટે કોઈ ગુણ કપાત થશે નહીં.
- (3) ઉત્તર આપવા માટે અલગ ઉત્તરવહી (OMR SHEET) આપી છે. ઉત્તર નીચેના ઉદાહરણ પ્રમાણે આપવાના છે. ભારતનું કયું રાજ્ય સૌથી લાંબો દરિયા-કિનારો ધરાવે છે ?
(A) મહારાષ્ટ્ર (B) તામિલનાડુ
(C) ગુજરાત (D) આંધ્રપ્રદેશ
ઉત્તરવહી (OMR SHEET)માં
 A B C D
ઉપરોક્ત પ્રશ્નનો સાચો ઉત્તર "C" છે. આથી "C"નું વર્તુળ કાળું (encode) કરેલ છે.
- (4) આ પ્રશ્નપુસ્તિકામાં કશું જ લખવાનું નથી.
- (5) ઉત્તરવહીમાં ઉત્તરો વાદળી / કાળી શાહીની બોલપોઈન્ટ પેનથી આપવાનાં છે. અન્ય શાહી, પેન કે પેન્સિલનો ઉપયોગ કરી શકાશે નહીં.
- (6) પરીક્ષા દરમ્યાન ઉમેદવાર પાસેથી કોઈ પણ સાહિત્ય, ગાઈડ, માર્ગદર્શિકા, કાપલી, સ્લીપો, અન્ય હસ્તલિખિત કે પ્રિન્ટેડ સાહિત્ય, મોબાઈલ ફોન, પેજર, કેલ્ક્યુલેટર કે અન્ય વીજાણુ ઉપકરણો હોવાનું જણાશે તો ઉમેદવારને ગેરલાયક ગણવામાં આવશે.
- (7) ચાલુ પરીક્ષા દરમ્યાન અંદરોઅંદર ગુસપુસ કરવી, અવાજ કરવો કે નિરીક્ષકની સૂચનાઓનું ઉલ્લંઘન કરવું તે ગેરશિસ્ત ગણાશે.
- (8) રફકામ છેલ્લાં પેજ પર કરવું.

ઉત્તરવહી (OMR Answer sheet) બે પ્રતમાં છે. પરીક્ષા પૂરી થયા બાદ ઉત્તરવહી (OMR Answer Sheet)ની પ્રથમ સ્કેનિંગ પ્રત (Scanning Copy) વર્ગ નિરીક્ષકને પરત કર્યા બાદ જ વર્ગખંડ છોડવાનો રહેશે. તેમ કરવામાં કસૂર થયેથી શિસ્તભંગનાં પગલાં ગણી પરીક્ષા માટે જે તે ઉમેદવારને ગેરલાયક ઠેરવવામાં આવશે. બીજી ઉમેદવાર પ્રત (Candidate Copy) ઉમેદવાર સાથે લઈ જઈ શકશે. પ્રશ્નપુસ્તિકા અને બીજી પ્રત ઉમેદવાર પોતાની જોડે લઈ જઈ શકશે.

- 1 In order to analyze paleo-environment/s of a sedimentary basin in geological rock record, we mainly depend on:
 - (A) Paleo-current analyses
 - (B) Facies association analyses
 - (C) Facies analysis
 - (D) Lithological description

- 2 When is the World Oceans Day celebrated?
 - (A) 5th June
 - (B) 6th June
 - (C) 7th June
 - (D) 8th June

- 3 Mid-Ocean ridges, rift valleys, and trenches are thought to:
 - (A) reverse roles in the southern hemisphere
 - (B) have no relationship to plate tectonics
 - (C) mark the boundaries between tectonic plates
 - (D) occurs in the middle of tectonic plates

- 4 The transformation from parent rock to soil is generally accompanied by:
 - (A) Decrease in Ca, Mg, Na and K and increase in Si
 - (B) Increase in Ca, Mg, Na and K and decrease in Si
 - (C) Much loss of Al and Fe
 - (D) No change in parent composition

- 5 When the axis plunges directly down the dip of the axial plane; the fold is known as:
 - (A) Plunging fold
 - (B) Periclinal fold
 - (C) Reclined fold
 - (D) Flexure fold

- 6 Chlorinate and salinity of sea water is expressed in:
 - (A) Grams per ton
 - (B) Kilogram per ton
 - (C) Grams per kilograms
 - (D) Milligrams per gram

- 7 Which are critical to the geochemical reactions of the biosphere?
 - (A) Mega organisms
 - (B) A microorganisms
 - (C) Animals
 - (D) Men

- 8 Hydrothermal deposits, which are formed at great depths, near the intrusive and within the temperature range of 300°C to 500°C is called:
- (A) Hypothermal deposits
 - (B) Mesothermal deposits
 - (C) Epithermal deposits
 - (D) Syngenetic deposits
- 9 Cyanobacteria created this gas during the Precambrian Era.
- (A) Carbon Dioxide
 - (B) Hydrogen
 - (C) Nitrogen
 - (D) Oxygen
- 10 What type of rock do fossils form in ?
- (A) Igneous
 - (B) Sedimentary
 - (C) Metamorphic
 - (D) Classic
- 11 As per the latest radiometric dating, what is the age of earth?
- (A) 4 billion years
 - (B) 4.54 billion years
 - (C) 4.45 billion years
 - (D) 4.64 billion years
- 12 Which Era is the Quaternary Period a part of?
- (A) Precambrian time
 - (B) Paleozoic Era
 - (C) Cenozoic Era
 - (D) Mesozoic Era
- 13 Small pieces of rock moved from one part to other by wind and water, glacier is called as
- (A) Erosion
 - (B) Rock flow
 - (C) Weathering
 - (D) Cementation
- 14 Remote sensing techniques make use of the properties of _____ emitted, reflected or diffracted by the sensed objects:
- (A) Electric Waves
 - (B) Sound Waves
 - (C) Electromagnetic Waves
 - (D) Wind waves

- 15 The best grade chromite in India occurs in which state?
(A) Karnataka (B) Rajasthan
(C) Orissa (D) Kerala
- 16 Which is the most common ore of lead?
(A) Sphalerite (B) Galena
(C) Chromite (D) Bauxite
- 17 The amount of oxygen in stream water is called:
(A) Macrophyte
(B) Dissolved oxygen
(C) Fecal coliform
(D) biochemical oxygen demand
- 18 Glaciers that are found only in Antarctica and Greenland and spread over large areas of land are called
(A) Valley glaciers
(B) alpine glaciers
(C) continental glaciers
(D) ice bergs
- 19 The physical property of mineral by which minerals are identified on account of its colour of the powder form is called as :
(A) Colour (B) Luster
(C) Streak (D) None of these
- 20 In which of the following the direction of Ocean currents are reversed with season?
(A) In the Pacific Ocean
(B) In the Atlantic Ocean
(C) In the Arctic Ocean
(D) On the Indian Ocean

- 21 The direction along which a mineral tends to break is called:
 (A) Fracture (B) Fault
 (C) Form (D) Cleavage
- 22 The mineral with a hardness of 9 in Mohs scale is:
 (A) Diamond (B) Olivine
 (C) Corundum (D) Topaz
- 23 Which mineral has bladed like structure?
 (A) Slate (B) Kyanite
 (C) Calcite (D) Gypsum
- 24 Ophitic texture is commonly shown by:
 (A) Trachyte (B) Lamprophyres
 (C) Andesite (D) Dolerite
- 25 Formation of core-and-mantle microstructure in quartz within a sheared rock characterizes
 (A) Recrystallization (B) Superplastic flow
 (C) Grain Boundary Area Reduction (D) Recovery
- 26 An alkaline rock consisting of Augite-Plagioclase-Nepheline is known as:
 (A) Theralite (B) Teschenite
 (C) Essexite (D) Ijolite
- 27 A common decomposition in basaltic rocks involves
 (A) Oxidation of Mg (B) Hydration of Fe
 (C) Oxidation of Fe (D) Hydration of K
- 28 Match the following:
- | I | II |
|--|--------------|
| 1. A coarse-grained, light coloured rock | i. Rhyolite |
| 2. A coarse-grained, dark-coloured rock | ii. Gabbro |
| 3. A fine-grained, light-coloured rock | iii. Granite |
| 4. A fine-grained, dark-coloured rock | iv. Basalt |
- (A) 1-iv, 2-ii, 3-iii, 4-i (B) 1-ii, 2-i, 3-iv, 4-iii
 (C) 1-iii, 2-ii, 3-i, 4-iv (D) 1-iii, 2-ii, 3-iv, 4-i
- 29 The grain-size variation is more or less continuous from smallest to largest; the texture is called:
 (A) Seriate (B) Poikilitic
 (C) Porphyritic (D) Mirolitic
- 30 Term used to describe surfaces across which there has been perceptible displacement are many. However, most geologists would prefer one of the following terms:
 (A) Joints (B) Fractures
 (C) Cracks (D) Faults

- 31 Which of the following is not a stress term ?
 (A) Megapascal (B) Kilobars
 (C) Pascal (D) Kilometers
- 32 What is the source of energy for the Earth's internal heat engine?
 (A) Solar Energy (B) Ocean tides
 (C) Volcanoes (D) Radioactivity
- 33 What is the status of magma or lava ?
 (A) Always liquid
 (B) Solids
 (C) Gaseous
 (D) Mixture of liquid, crystals, and gases
- 34 In a cross section of a fold, the region of maximum curvature is the _____
 (A) Overturned limb (B) Crest
 (C) Hinge line (D) Inflection point
- 35 Which geophysical exploration method widely used for exploration of gas and oil?
 (A) Seismic refraction method (B) Magnetic method
 (C) Gravity method (D) Seismic reflection method
- 36 S waves can pass through _____
 (A) Solids only (B) Gases only
 (C) Liquids only (D) Solids and liquids both
- 37 The amount of ground displacement in an earthquake is called the _____
 (A) focus (B) dip
 (C) slip (D) fault
- 38 What evidence do scientists use to support the continental drift theory?
 (A) rocks, fossils, air (B) rocks, fossils, climate
 (C) rocks, water, ice (D) rocks, fossils, human beings
- 39 The theory of plate tectonics combine which two other theories?
 (A) sea floor spreading and continental drift
 (B) sea floor spreading and tidal theory
 (C) continental drift and fossil theory
 (D) continental drift and Big Bang theory
- 40 Which plate boundary is marked by deep-sea trenches, volcanic mountain chains and severe earthquakes?
 (A) Convergent (B) hot spots
 (C) transform (D) divergent

- 41 Stephen J Gould is a palaeontologist who speculated that, of all the organisms that ever lived on earth, only _____% are still alive.
 (A) 1 (B) 20 (C) 50 (D) 99
- 42 An animal is more likely to become fossilized if:
 (A) left exposed to the elements
 (B) the animal dies at sea and sinks deep
 (C) the animal is a soft-bodied animal like jellyfish
 (D) all of the above
- 43 Radiocarbon dating can help find the age range of biological specimens no older than
 (A) 50000 years (B) 100000 years
 (C) 500000 years (D) 1000000 years
- 44 The sedimentary rock, gypsum, forms as a result of _____
 (A) evaporation of sea water (B) metamorphism of limestone
 (C) weathering of silstone (D) faulting and folding of shale
- 45 Some sedimentary rocks form as the direct result of the _____
 (A) melting of minerals (B) solidification of molten magma
 (C) cementation of rock fragments (D) recrystallization of material
- 46 The structure most prevalent to clastic rocks is _____
 (A) Nodular structure (B) Geode structure
 (C) Concretionary structure (D) Lamination
- 47 The process not contributing to clastic rocks is _____
 (A) Weathering (B) Oxidation
 (C) Erosion (D) Deposition
- 48 The texture of sandstone is _____
 (A) Fine-medium (B) Medium-coarse
 (C) Coarse (D) Find-coarse
- 49 A stratigraphic sequence is a vertical set of strata
 (A) used as a chronological record of the geologic history of a region
 (B) that is unique to a specific area
 (C) that represents a repeating set of events such as recurring floods, debris, flows, etc.
 (D) bounded above and below by igneous and/or metamorphic rocks
- 50 On reaching any geological province for the first time for field work, the first duty of a geologist is to:
 (A) Orient the toposhet with geographic north
 (B) collection of rock samples
 (C) have a reconnaissance of the terrain
 (D) Marking location by taking bearing

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SPACE FOR ROUGH WORK