

परीक्षेचे नांव : कनिष्ठ भूवैज्ञानिक, भूविज्ञान व खनिकर्म संचालनालय
महाराष्ट्र खनिज सेवा, गट – ब चाळणी परीक्षा-2013

परीक्षेचा दिनांक : 1 मार्च, 2014

महाराष्ट्र लोकसेवा आयोगामार्फत कनिष्ठ भूवैज्ञानिक, भूविज्ञान व खनिकर्म संचालनालय महाराष्ट्र खनिज सेवा, गट – ब, चाळणी परीक्षा-२०१३ या चाळणी परीक्षेच्या प्रश्नपत्रिकेची उत्तरतालिका उमेदवारांच्या माहितीसाठी संकेतस्थळावर प्रसिध्द करण्यात आली होती. त्यासंदर्भात उमेदवारांनी अधिप्रमाणित (Authentic) स्पष्टीकरण / संदर्भ देऊन पाठविलेली लेखी निवेदने, तसेच तज्ज्ञांचे अभिप्राय विचारात घेऊन आयोगाने उत्तरतालिका सुधारित केली आहे. या उत्तरतालिकेतील उत्तरे अंतिम समजण्यात येतील. यासंदर्भात आलेली निवेदने विचारात घेतली जाणार नाहीत व त्याबाबत कोणताही पत्रव्यवहार केला जाणार नाही, याची कृपया नोंद घ्यावी.

उत्तरतालिका - KEY

Question Paper

Notations:

1. Options shown in green color are correct.
2. Options shown in red color are incorrect.

Question Paper Name:	Junior Geologist
Duration:	60

Group 1		
	Group Minimum Duration : 60	

Geology		
Section type : Online	Number of Questions to be attempted:90	Mandatory or Optional: Mandatory

Sub-Section : 1	Question Shuffling Allowed : Yes
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Question id : 5805 Question Type : MCQ

The fold in which the axes plunges directly down the dip of the axial surface is termed as

Options :

1. Normal folds
2. Reclined fold
3. Cascade fold
4. Drag fold

Question id : 5806 Question Type : MCQ

Coastal lakes connected to sea waters are known as

Options :

1. Fresh water lakes
2. Sabkha
3. Lagoons
4. Embayment

Question id : 5807 Question Type : MCQ

Thrust fault differ from reverse fault in:

Options :

1. Relative position in Hanging Wall and Foot Wall
 2. Amount of dip involved in two faults
 3. Nature of tectonic force
 4. Tectonic direction
-

Question id : 5808 Question Type : MCQ

The fluid pressure

Options :

1. Decreases both shearing and compressive strengths of the rock
 2. Decreases the shearing strength of the rock.
 3. Decreases the compressive strength of the rock
 4. Increases both shearing and compressive strengths of the rock
-

Question id : 5809 Question Type : MCQ

The R.F. of a geological map prepared on a scale of 2cm=1 km. is:

Options :

1. 1:50,000
 2. 1: 5000
 3. 1:500
 4. 1:100000
-

Question id : 5810 Question Type : MCQ(0.0)

Hade of a vertical fault will be

Options :

1. 90°
 2. 45°
 3. 0°
 4. 40°
-

Question id : 5811 Question Type : MCQ

Where do the ophiolite suits of rocks occur

Options :

1. Lesser Himalaya
 2. Indus suture zone
-

3. Brahmaputra valley
 4. Himalayan foot hill zone
-

Question id : 5812 Question Type : MCQ

In sequence stratigraphic terminology, surface created by sea level fall is known as:

Options :

1. Sequence boundary
 2. Accommodation space
 3. Hiatal surface
 4. Maximum flooding surface
-

Question id : 5813 Question Type : MCQ

Permeability is a measure of the ability of the fluid to

Options :

1. Contract when pressure is applied
 2. Flow through a porous rock
 3. Produce energy when burned
 4. Retaining the water
-

Question id : 5814 Question Type : MCQ

The point which separates a convex and concave segment of a fold is called:

Options :

1. Median point
 2. Inflexion point
 3. Hinge point
 4. Crest point
-

Question id : 5815 Question Type : MCQ

Schist represents a material which has mechanical properties as

Options :

1. Homogeneous and isotropic
 2. Homogeneous and anisotropic
 3. Inhomogeneous and anisotropic
 4. Inhomogeneous and isotropic
-

Question id : 5816 Question Type : MCQ

Which of the following is most useful for palaeoenvironmental interpretations?

Options :

1. Animal fossil
2. Plant fossil
3. Trace fossil
4. Pseudo fossil

Question id : 5817 Question Type : MCQ

90°E ridge is located in

Options :

1. Antarctic ocean
2. Arabian Sea
3. Indian Ocean
4. Pacific Ocean

Question id : 5818 Question Type : MCQ

An impermeable body of rock which neither absorbs nor transmits water is known as:

Options :

1. Aquifuge
2. Aquifer
3. Permeable
4. Confined aquifer

Question id : 5819 Question Type : MCQ

A stream is positioned above the water table and discharges into the underlying ground water system, is known as:

Options :

1. Affluent stream
2. Influent stream
3. Subsurface stream
4. Running water

Question id : 5820 Question Type : MCQ

Water formed through chemical reactions in geological processes and brought into the hydrological system for the first time is known as

Options :

1. Connate water

2. Juvenile Water
 3. Chemical water
 4. Perched water
-

Question id : 5821 Question Type : MCQ

Water that is trapped in sediments at the time of their deposition is known as

Options :

1. Juvenile water
 2. Meteoric water
 3. Connate water
 4. Artesian water
-

Question id : 5822 Question Type : MCQ

The ratio of the volume of water that drains by gravity to that of the total volume of the saturated porous medium is termed as

Options :

1. Water yield
 2. Specific Yield
 3. Water ratio
 4. Water volume
-

Question id : 5823 Question Type : MCQ

A point where subsurface water emerges at surface, usually as a result of topographical, lithological or structural controls is called as

Options :

1. Subsurface water
 2. Connate water
 3. Spring
 4. Lake
-

Question id : 5824 Question Type : MCQ

Magmatic carbonates are termed as

Options :

1. Calc-silicate
 2. Carbonatite
 3. Chalcedony
 4. Chert
-

Question id : 5825 Question Type : MCQ

Quartz displays undulose extinction due to

Options :

1. Twinning
2. Impurity
3. Fluid inclusion
4. Deformation

Question id : 5826 Question Type : MCQ

Lithosphere comprises of

Options :

1. Crust and Mantle
2. Crust , Mantle and Outer core
3. Crust and Upper mantle
4. Crust and Lower mantle

Question id : 5827 Question Type : MCQ

Glaucophane is an index mineral of

Options :

1. Green-schist facies
2. Blue-schist facies
3. Almandine-amphibolite facies
4. Granulite facies

Question id : 5828 Question Type : MCQ

A Listric fault is

Options :

1. Steep dipping normal fault
2. Gentle dipping normal fault
3. Steep dipping fault at top and gentle dipping at bottom
4. Gentle dipping fault at top and steep dipping at bottom

Question id : 5829 Question Type : MCQ

Flat topped sea mountains are termed as

Options :

1. Mid-oceanic ridges

2. Guyots
 3. Hydrothermal vents
 4. Atolls
-

Question id : 5830 Question Type : MCQ

According to Wentworth scale, the size of clay is:

Options :

1. 2mm-64mm
 2. 1/16mm-2mm
 3. 1/16mm-1/256mm
 4. <1/256mm
-

Question id : 5831 Question Type : MCQ

The "Ring of Fire"-an arcuate belt with the largest number of active volcanoes on earth is found in:

Options :

1. Atlantic ocean
 2. Pacific ocean
 3. African rift valley
 4. Mid oceanic ridges
-

Question id : 5832 Question Type : MCQ

The process responsible for the lowering of mountains is:

Options :

1. Denudation
 2. Weathering
 3. Erosion
 4. Decomposition
-

Question id : 5833 Question Type : MCQ

In glacial environment 'Kettles' are

Options :

1. Small, smooth and elliptical hills
2. Small lakes formed during ablation phase
3. Ridge or layer of hills
4. Long winding ridge

Question id : 5834 Question Type : MCQ

Stalactite is a kind of:

Options :

1. Depositional feature
2. Erosional feature
3. Replacement feature
4. Deformational feature

Question id : 5835 Question Type : MCQ

Which one among the following is a feature produced by wind

Options :

1. Drumlins
2. Loess
3. Delta
4. Canyons

Question id : 5836 Question Type : MCQ

Antecedent Streams are those which:

Options :

1. Maintain their original course across area of uplift
2. Follow the slope of the initial land surface
3. Develop on the sloping sides of stream valley
4. Flowing on exposed older rocks

Question id : 5837 Question Type : MCQ

When the minimum principal stress is vertical, the resultant fault is:

Options :

1. Strike-slip fault
2. Reverse fault
3. Oblique slip fault
4. Normal fault

Question id : 5838 Question Type : MCQ

The higher contour always enclose lower ones in case of a

Options :

1. Hill
2. Valley

3. Basin
4. Spur

Question id : 5839 Question Type : MCQ

Laterites are formed as a result of

Options :

1. Weathering or leaching
2. Chemical precipitation
3. Biogenic activity
4. Sedimentation

Question id : 5840 Question Type : MCQ

Shear joints are:

Options :

1. Parallel to the maximum compressive stress direction
2. Normal to the maximum compressive stress direction
3. At nearly 60° angle to the maximum compressive stress direction
4. At nearly 30° angle to the maximum compressive stress direction

Question id : 5841 Question Type : MCQ

In a limited area when younger rock is surrounded by older rock, then the structure is called as

Options :

1. Klippe
2. Window
3. Inlier
4. Outlier

Question id : 5842 Question Type : MCQ

Which of the following represents the longest time period?

Options :

1. Precambrian
2. Paleozoic
3. Mesozoic
4. Cenozoic

Question id : 5843 Question Type : MCQ

The process of transforming a melt into a solid rock is known as:

Options :

1. Lithification
2. Fluidzation
3. Cementation
4. Crystallization

Question id : 5844 Question Type : MCQ

The rock composed of rounded pebbles is called:

Options :

1. Pebble stone
2. Clastic stone
3. Conglomerate
4. Rhyolite

Question id : 5845 Question Type : MCQ

Lamphyres characteristically exhibit

Options :

1. Allotriomorphic texture
2. Automorphic texture
3. Penidiomorphic texture
4. Hyperautomorphic texture

Question id : 5846 Question Type : MCQ

Unconformities are indicative of:

Options :

1. Break in deposition
2. Change in materials being deposited
3. Change in mode of deposition
4. Change in environment of deposition

Question id : 5847 Question Type : MCQ

The youngest rocks of the basaltic crust on the sea floor are found along

Options :

1. Abyssal plains
2. Mid oceanic ridges
3. Fracture zones

4. Subduction zone

Question id : 5848 Question Type : MCQ

Ptilophyllum is a characteristic fossil of:

Options :

1. Lower Gondwanas
 2. Upper Gondwanas
 3. Middle Gondwana
 4. Vindhyaans
-

Question id : 5849 Question Type : MCQ

Khondalite is

Options :

1. graphite bearing rock
 2. pyroxene bearing rock
 3. hypersthene bearing rock
 4. composed of actinolite
-

Question id : 5850 Question Type : MCQ

Arenaceous rocks are composed of

Options :

1. Boulders
 2. Pebbles
 3. Sand
 4. Clay
-

Question id : 5851 Question Type : MCQ

An intergrowth of two feldspars- a host grain of K-feldspar, $KAlSi_3O_8$ includes exsolved lamellae or irregular intergrowths of albite $NaAlSi_3O_8$ is

Options :

1. Myrmekitic texture
 2. Perthitic texture
 3. Anti-perthitic texture
 4. Graphic texture
-

Question id : 5852 Question Type : MCQ

In general fine grained rocks have

Options :

1. High Porosity
2. High Permeability
3. High Porosity and High permeability
4. High porosity and low permeability

Question id : 5853 Question Type : MCQ

Benioff zone is well known for

Options :

1. Deep focus earthquake
2. Shallow focus earthquake
3. Convergent boundaries
4. Mid oceanic ridges

Question id : 5854 Question Type : MCQ

Benefits of satellite imaging do not include:

Options :

1. large area coverage
2. coverage of inaccessible areas
3. frequent re-coverage
4. easy bird nest identification

Question id : 5855 Question Type : MCQ

Aerial Photo-interpretation *does not* rely on:

Options :

1. Methodical approach
2. Use of shapes and patterns
3. Use of textures and shades
4. Type of aircraft

Question id : 5856 Question Type : MCQ

The most suitable plate margin for hydrocarbon generation is

Options :

1. Atlantic type
2. Andean type
3. Japan Sea type

4. San Andreas type

Question id : 5857 Question Type : MCQ

The energy that is most useful in passive remote sensing is the energy that is:

Options :

1. Reflected
2. Absorbed
3. Transient
4. Transmitted

Question id : 5858 Question Type : MCQ

The example of active remote sensing is:

Options :

1. Radar imaging
2. Near Infrared imaging
3. Ultrasonography
4. Polar orbiting satellite

Question id : 5859 Question Type : MCQ

Ifov stands for

Options :

1. Image Field Objects Varieties
2. International Field Of Vision
3. Instantaneous Field Of View
4. Instrument For Objective Vision

Question id : 5860 Question Type : MCQ

Minimum mapping unit from a satellite sensor is refers to it's:

Options :

1. Temporal resolution
2. Spectral resolution
3. Radiometric distortion
4. Spatial resolution

Question id : 5861 Question Type : MCQ

For remote imagery, swath width refers to

Options :

1. Minimum resolution

- band width for image distribution
 - how frequently a satellite returns to the same point
 - the portion of earth's surface covered with each pass of the satellite
-

Question id : 5862 Question Type : MCQ

For determining top and bottom sides of a bed which of the following can not be used

Options :

- Rock cleavages
- Planar cross bedding
- Tangential cross bedding
- Fossils

Question id : 5863 Question Type : MCQ

If the focal length of camera is f and flying height is H the scale of the aerial photograph will be.....

Options :

- H/f
- f/H
- $(1+f)/H$
- $f/(1+H)$

Question id : 5864 Question Type : MCQ

Which of the following satellites has WiFS?

Options :

- IRS
- LANDSAT
- SPOT
- INSAT

Question id : 5865 Question Type : MCQ

Absence of which of the following the overlay operation in GIS is *not* possible

Options :

- Common co-ordinate system
 - Common satellite sensor
 - Common spectral resolution
 - Common spatial resolution
-

Question id : 5866 Question Type : MCQ

Satellite imagery may now be valuable for most GIS applications due to:

Options :

1. Newer high resolution image capture
2. Government investment
3. Broad swath width
4. 1 Kilometer minimum mapping units

Question id : 5867 Question Type : MCQ

'Quad tree' in a Geographic Information System is a type of

Options :

1. Facility to count number of trees in a region
2. Facility to identify type of trees in a region
3. Facility to identify as well as count number of different tree types.
4. Database management system

Question id : 5868 Question Type : MCQ

The projection system involved in aerial photography is

Options :

1. Orthographic
2. Stereographic
3. Gnomonic
4. Perspective

Question id : 5869 Question Type : MCQ

Which of the followings conditions is suitable for development of Ravines?

Options :

1. Granite in arid climate
2. Limestone in cold climate
3. Shale in humid climate
4. Sandstone in semi-arid climate

Question id : 5870 Question Type : MCQ

Diagenesis refers to

Options :

1. Post-depositional change

2. Pre-depositional change
 3. Syn-depositional change
 4. Deformational changes
-

Question id : 5871 Question Type : MCQ

The radial drainage pattern is found in some region it may indicate presence of

Options :

1. Structural basin
 2. Structural dome
 3. Syncline
 4. Antiform
-

Question id : 5872 Question Type : MCQ

The Lonar lake in Maharashtra is said to be formed by

Options :

1. Intersection of three faults
 2. Meteoritic impact
 3. Basin structure
 4. Ground water table coming over the surface
-

Question id : 5873 Question Type : MCQ

The black cotton soil in Maharashtra is said to be formed by weathering of

Options :

1. Granite
 2. Basalt
 3. Khondalite
 4. Graphite
-

Question id : 5874 Question Type : MCQ

Originating in Maharashtra which river forms its delta in Andhra Pradesh

Options :

1. Ganga
 2. Narmada
 3. Godavari
 4. Kaveri
-

Question id : 5875 Question Type : MCQ

An area in tropical region is having high drainage density. Which among the following information may be valid?

Options :

1. High infiltration into ground water
2. High surface runoff
3. High evapotranspiration
4. Presence of basalt on the surface

Question id : 5876 Question Type : MCQ

Which of the following bands from a satellite sensor would be most appropriate for identifying soil moisture zones?

Options :

1. Blue
2. Green
3. Red
4. Near Infra Red

Question id : 5877 Question Type : MCQ

Which of the following has highest electrical resistivity?

Options :

1. Granite
2. Sandstone
3. Shale
4. galena

Question id : 5878 Question Type : MCQ

The acronym NDVI is related to

Options :

1. Geographic Information System
2. Digital Image Processing
3. Landslide monitoring
4. Ground water exploration

Question id : 5879 Question Type : MCQ

The red colored regions in standard FCC images denote

Options :

1. Green vegetation
2. Red vegetation
3. Red painted objects
4. There cannot be red colour in FCC

Question id : 5880 Question Type : MCQ

The 'Great Boundary Fault' occurs in the region of

Options :

1. Alwar
2. Chittorgarh
3. Jaipur
4. Ajmer

Question id : 5881 Question Type : MCQ

In ductile deformation ultramylonite contains

Options :

1. 10 to 20% matrix
2. 20-50% matrix
3. 50-90% matrix.
4. 90-100% matrix.

Question id : 5882 Question Type : MCQ

The boundary between the crust and mantle is termed as

Options :

1. Conrad discontinuity
2. Mohorovicic discontinuity
3. Gutenberg discontinuity
4. Repetti discontinuity

Question id : 5883 Question Type : MCQ

Glaucophane is an index mineral of

Options :

1. Green-schist facies
2. Almandine-amphibolite facies
3. Blue-schist facies
4. Granulite facies

Question id : 5884 Question Type : MCQ

Which of the following Place's earth quakes is related to the Son-Narmada rift?

Options :

1. Latur
2. Jabalpur
3. Bhadrachalam

4. Uttarkashi

Question id : 5885 Question Type : MCQ

Laterites are formed as a result of

Options :

1. Weathering or leaching
 2. Chemical precipitation
 3. Biogenic activity
 4. Sedimentation
-

Question id : 5886 Question Type : MCQ

The dip of the S-surface is best measured on:

Options :

1. Horizontal plane
 2. Vertical plane
 3. Inclined plane
 4. Curved plane
-

Question id : 5887 Question Type : MCQ

Which one is an example of structure having quaquaversal dip

Options :

1. Depression
 2. Plateau
 3. Dome
 4. Horse
-

Question id : 5888 Question Type : MCQ

The reverse fault dipping at an angle of less than 45° is termed as

Options :

1. Over thrust
 2. Under thrust
 3. Thrust
 4. Klippe
-

Question id : 5889 Question Type : MCQ

In a complexly deformed area older rock is observed in the core of the synform
What type of structure can be interpreted?

Options :

1. Anticline
-

2. Syncline
3. Synformal anticline
4. Antiformal Syncline

Question id : 5890 Question Type : MCQ

When a sandstone is metamorphosed completely, it becomes:

Options :

1. Quartzite
2. Gneiss
3. Schist
4. Slate

Question id : 5891 Question Type : MCQ

Which of the following mineral is having dual hardness:

Options :

1. Talc
2. Kyanite
3. Hornblende
4. Epidote

Question id : 5892 Question Type : MCQ

Inselberg and Zeugen are the structures produced by the

Options :

1. Glacial erosion
2. Wind erosion
3. River erosion
4. Sea erosion

Question id : 5893 Question Type : MCQ

The crescent shaped dune in which the convex side faces wind direction is:

Options :

1. Parabolic dunes
2. Transverse dunes
3. Barchan dunes
4. Sand dunes

Question id : 5894 Question Type : MCQ

Antecedent Streams are those which:

Options :

1. Maintain their original course across area of uplift
2. Follow the slope of the initial land surface
3. Develop on the sloping sides of stream valley
4. Flowing on exposed older rocks

General awareness and RTI		
Section type : Online	Number of Questions to be attempted:10	Mandatory or Optional: Mandatory

Sub-Section : 1	
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Question id : 5895 Question Type : MCQ

Which among the following is not included in the 'Terms of Reference' of National Knowledge Commission?

Options :

1. To promote Knowledge applications in Agriculture and industry
2. To promote the use of knowledge capabilities in making government an effective, Transparent and accountable service provide to the citizen
3. To promote creation of Knowledge in Science and Technology laboratories
4. To promote use of ICT in Knowledge dissemination without further accentuating the digital divide

Question id : 5896 Question Type : MCQ

According to Mahabharata, which sage was the father of Veda Vyasa?

Options :

1. Pulastya
2. Parashar
3. Bharadwaja
4. Kashyapa

Question id : 5897 Question Type : MCQ

VISHAKA Guidelines and norms laid down by the Hon'ble Supreme court of India in 1997 pertain to which evil at working places?

Options :

1. Unhygienic condition
2. Sexual harassment against women
3. Hostile behavior towards SC/ST/OBC
4. Non-Cooperation with the disabled

Question id : 5898 Question Type : MCQ

Flatiron Building in Manhattan, New York was decorated on 5th December, 2013 in the memory of which famous Mathematician?

Options :

1. Srinivasa Ramanujam
2. Pythagoras
3. Pierre de Fermat
4. Leonhard Euler

Question id : 5899 Question Type : MCQ

The First World War started on 28th July, 1914. It got referred to as the "First World War" for the first time in September, 1914 by

Options :

1. Ernst Haeckel
2. Emperor Franz Josef
3. King George V
4. Kaiser Wilhelm II

Question id : 5900 Question Type : MCQ

Which of the following Indian musicians have the rarest of rare honor of performing at the Red Fort in Delhi on the evening of the Independence Day of India in 1947 and Republic Day on 26 January in 1950 from the Red Fort?

Options :

1. Bismillah Khan
2. Bade Ghulam Ali Khan
3. Lata Mangeshkar
4. M.S. Subbalakshmi

Question id : 5901 Question Type : MCQ

On how many occasions has India reached the Davis Cup final?

Options :

1. Never
2. Once
3. Twice
4. Thrice

Question id : 5902 Question Type : MCQ

Who nominated Gurudev Rabindranath Tagore for the Nobel Prize?

Options :

1. W. B. Yeats
2. Sturge Moore
3. Bertrand Russell
4. George Bernard Shaw

Question id : 5903 Question Type : MCQ

The RTI Act,2005 covers whole of India except _____ .

Options :

1. Jammu & Kashmir
2. Andaman & Nicobar island
3. Arunachal Pradesh
4. Sikkim

Question id : 5904 Question Type : MCQ

If the information under RTI Act,2005 has been sought through a floppy/CD,then the information seeker has to pay per such item _____ .

Options :

1. Rs.30/-
2. Rs.40/-
3. Rs.50/-
4. Rs.60/-