

# Maharashtra Public Service Commission

## Notations :

- Options shown in green color and with ✓ icon are correct.
- Options shown in red color and with ✗ icon are incorrect.

Question Paper Name :	JuniorGeologistGroupB 17 Mar 23 S3
Subject Name :	Junior Geologist Group B
Actual Answer Key :	Yes
Calculator :	None
Magnifying Glass Required? :	No
Ruler Required? :	No
Eraser Required? :	No
Scratch Pad Required? :	No
Rough Sketch/Notepad Required? :	No
Protractor Required? :	No
Show Watermark on Console? :	Yes
Highlighter :	No
Auto Save on Console?	Yes
Change Font Color :	No
Change Background Color :	No
Change Theme :	No
Help Button :	No
Show Reports :	No
Show Progress Bar :	No
Is this Group for Examiner? :	No
Examiner permission :	Cant View
Show Progress Bar? :	No

Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Is Section Default? :	null

Question Number : 1 Question Id : 630680185543 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0.5

\_\_\_\_\_ won the 2022 Ballon d'Or by the second-biggest margin in history by beating \_\_\_\_\_.

## Options :

- ✗ Lionel Messi; Karim Benzema
- ✓ Karim Benzema; Sadio Mane
- ✗ Sadio Mane; Karim Benzema
- ✗ Cristiano Ronaldo; Sadio Mane

Question Number : 1 Question Id : 630680185543 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0.5

\_\_\_\_\_ ने \_\_\_\_\_ ला पराभूत करून इतिहासातील दुसऱ्या सर्वात मोठ्या फरकाने 2022 चा बॅलोन डी'ओर जिंकला.

## Options :

- ✗ लिओनेल मेस्सी; करीम बेंझेमा
- ✓ करीम बेंझेमा; सादियो माने
- ✗ सादियो माने; करीम बेंझेमा

4. ✘ खिस्तयानो रोनाल्डो; सादियो माने

**Question Number : 2 Question Id : 630680185544 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Which of the following are correct about the International Solar Alliance (ISA)?

- A. Shri RK Singh inaugurated the 4th Assembly of the International Solar Alliance on 18 October 2022.
- B. Ministers from 30 countries and delegates from across 120 Member and Signatory countries and 18 prospective countries were present at the inaugural ceremony.
- C. ISA's mission is to unlock US\$1 trillion of investments in solar by 2030 while reducing the cost of the technology and its financing.
- D. With the signing and ratification of the ISA Framework Agreement by 15 countries on 6 December 2017, ISA became the first international intergovernmental organisation to be headquartered in India.

**Options :**

- 1. ✘ A and B
- 2. ✘ B and C
- 3. ✔ Only C and D
- 4. ✘ A, C and D

**Question Number : 2 Question Id : 630680185544 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

आंतरराष्ट्रीय सौर युती (ISA) बदल खालीलपैकी कोणती विधाने यो- आहेत?

- A. श्री आर. के. सिंह यांनी 18 ऑक्टोबर 2022 रोजी आंतरराष्ट्रीय सौर युतीच्या चौथ्या संमेलनाचे उद्घाटन केले.
- B. उद्घाटन समारंभास 30 देशांचे मंत्री आणि 120 सदस्य आणि स्वाक्षरीकर्त्या देशातील आणि 18 संभाव्य देशांतील प्रतिनिधी उपस्थित होते.
- C. 2030 पर्यंत सौर क्षेत्रात US\$1 ट्रिलियन गुंतवणुकी करणे आणि तंत्रज्ञानाची किंमत आणि त्याचा वित्तपुरवठा कमी करणे हे ISA चे उद्दिष्ट आहे.
- D. 6 डिसेंबर 2017 रोजी 15 देशांनी ISA संरचना करारावर (फ्रेमवर्क अग्रीमेंट) स्वाक्षरी करून मान्यता दिल्याने, ISA ही भारतात मुख्यालय असलेली पहिली आंतरराष्ट्रीय-आंतरशासकीय संस्था बनली.

**Options :**

- 1. ✘ A आणि B
- 2. ✘ B आणि C
- 3. ✔ केवळ C आणि D
- 4. ✘ A, C आणि D

**Question Number : 3 Question Id : 630680185545 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Thirteen Climate Change centres/ cells have been set up in different states to carry activities that connect their state action plans on climate change with the National Mission on Strategic Knowledge for Climate Change (NMSKCC) priorities of action. Which of the following states is one among those 13 states?

**Options :**

- 1. ✘ Jharkhand
- 2. ✔ Bihar
- 3. ✘ Himachal Pradesh
- 4. ✘ Rajasthan

**Question Number : 3 Question Id : 630680185545 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

तेरा हवामान बदल केंद्रे विविध राज्यांमध्ये स्थापन करण्यात आली असून ती त्यांच्या कृती योजनांना हवामान बदलासंबंधी नॅशनल मिशन ऑन स्ट्रॅटेजिक नॉलेज फॉर क्लायमेट चेंज (NMSKCC) न कृतीन प्राधान्यक्रमांशी जोडतात. खालीलपैकी कोणते राज्यांमध्ये त्या 13 राज्यांपैकी एक आहे?

**Options :**

- 1. ✘ झारखंड
- 2. ✔ बिहार
- 3. ✘ हिमाचल प्रदेश

4. ✘ राजस्थान

**Question Number : 4 Question Id : 630680185546 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

As per the announcement made by the Union Minister of State for Science and Technology, Jitendra Singh, on 19 February 2023, in which of the following states will North India's first nuclear power plant come up?

**Options :**

1. ✘ Punjab
2. ✘ Uttarakhand
3. ✘ Himachal Pradesh
4. ✔ Haryana

**Question Number : 4 Question Id : 630680185546 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

केंद्रीय विनन आणि तंत्रनन रामन्त्री जितेंद्र सिंह यांनी 19 फेब्रुवारी 2023 रोजी केलेल्या घोषणेनुसार, खालीलपैकी कोणत्या रानत उर भारतातील पहिला अणुऊर्जा प्रकल्प उभारला जाणार आहे?

**Options :**

1. ✘ पंजाब
2. ✘ उत्तराखंड
3. ✘ हिमाचल प्रदेश
4. ✔ हरयाणा

**Question Number : 5 Question Id : 630680185547 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Who among the following became the CEO of NITI Aayog in July 2022?

**Options :**

1. ✔ Parameswaran Iyer
2. ✘ Arvind Virmani
3. ✘ Abhishek Singh
4. ✘ Sherpa Amitabh Kant

**Question Number : 5 Question Id : 630680185547 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

जुलै 2022 म्-खालीलपैकी कोण NITI आयोगाचे मु-कार्यकारी अधिकारी (CEO) बनले?

**Options :**

1. ✔ परमेस्वरन अर
2. ✘ अरविंद वीरमणी
3. ✘ अभिषेक सिंग
4. ✘ शेर्पा अमिताभ कांत

**Question Number : 6 Question Id : 630680185548 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

In which of the following institutes will the Serum Institute of India set up the Dr. Cyrus Poonawalla Centre of Excellence (CoE) in Infectious Diseases and Pandemic Preparedness?

**Options :**

1. ✘ Indian Institute of Public Health Gandhinagar
2. ✘ Indian Institute of Public Health Delhi
3. ✔ Indian Institute of Public Health Hyderabad
4. ✘ Indian Institute of Public Health Shillong

Question Number : 6 Question Id : 630680185548 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response

Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

सीरम इन्स्टिट्यूट ऑफ इंडिया खालीलपैकी कोणत्या संस्थेचे डॉ. सायरस पूनावाला सेंटर ऑफ एक्सलन्स (CoE) इन इन्फे क्शयस डिसिजेस अँड पॅमिक प्रीपेअर्डनेस स्थापन करणार आहे?

Options :

- ✘ इंडियन इन्स्टिट्यूट ऑफ पब्लिक हेल्थ गांधीनगर
- ✘ इंडियन इन्स्टिट्यूट ऑफ पब्लिक हेल्थ दिल्ली
- ✔ इंडियन इन्स्टिट्यूट ऑफ पब्लिक हेल्थ हैदराबाद
- ✘ इंडियन इन्स्टिट्यूट ऑफ पब्लिक हेल्थ शिलाँग

Question Number : 7 Question Id : 630680185549 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response

Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

When was the wholesale digital rupee pilot launched by RBI?

Options :

- ✘ August 2022
- ✘ Septemer2022
- ✔ November 2022
- ✘ December 2022

Question Number : 7 Question Id : 630680185549 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response

Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

RBI ने होलसेल डिजिटल रुपी पायलट कधी सुरू केले?

Options :

- ✘ ऑगस्ट 2022
- ✘ सप्टेंबर 2022
- ✔ नोव्हेंबर 2022
- ✘ डिसेंबर 2022

Question Number : 8 Question Id : 630680185550 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response

Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Who received the 2022 individual art grant from the prestigious Pollock-Krasner Foundation, New York, which aims to advance the work of artists internationally in recognition of their excellence and contribution to contemporary art practice?

Options :

- ✘ Dancer and choreographer Savitha Sastry
- ✘ Guitarist and music composer Baiju Dharmajan
- ✘ Fiction Writer KR Meera
- ✔ Sculptor and videographer Saba Hasan

Question Number : 8 Question Id : 630680185550 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response

Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

कलाकारांन उल्कृष्टतेची आणि समकालीन कला व्यवहारातील योगदानाची दखल घेऊन आंतरराष्ट्रीय स्तरावर त्यांचे कार्य पुढे नेण्याचा उद्देश असणान्य ा प्रतिष्ठित पोलॉक-क्रासनर फाऊंडेशन, न्यूयॉर्ककडून 2022 सालचे वैयक्तक कला अनुदान कोणाला मिळाले आहे?

Options :

- ✘ नृत्यांगना आणि नृत्यदिग्दर्शक सविता शास्त्री
- ✘ गिटारवादक आणि संगीतकार बैजू धर्माजन
- ✘ कथालेखिका केआर मीरा
- ✔ शिल्पकार आणि व्हिडिओग्राफर सबा हसन



Is Section Default? :

null

**Question Number : 9 Question Id : 630680185551 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Which of the following chapters of the Right to Information Act, 2005, discusses the 'Right to information and obligations of public authorities'?

**Options :**

1. ✘ Chapter I
2. ✔ Chapter II
3. ✘ Chapter III
4. ✘ Chapter IV

**Question Number : 9 Question Id : 630680185551 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

माहितीचा अधिकार कायदा, 2005 न खालीलपैकी कोणत्या प्रकरणामे 'माहितीचा अधिकार आणि सार्वजनिक प्राधिकरणांचे दायित्व' याविषयी चर्चा केली आहे?

**Options :**

1. ✘ प्रकरण I
2. ✔ प्रकरण II
3. ✘ प्रकरण III
4. ✘ प्रकरण IV

**Question Number : 10 Question Id : 630680185552 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Which of the following government organisations are exempted from the purview under the second schedule of the Right to Information Act, 2005?

- A.Border Road Development Board
- B.Central Reserve Police Force
- C.Directoriate of Revenue Intelligence
- D.Defence Research and Development Organisation
- E.National Sample Survey Organisation

**Options :**

1. ✘ Only A and B
2. ✘ A, B, C, D and E
3. ✔ Only A, B, C and D
4. ✘ Only A, C and D

**Question Number : 10 Question Id : 630680185552 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

माहिती अधिकार कायदा, 2005 न दुसऱ्या अनुसूचीअंतर्गत खालीलपैकी कोणत्या सरकारी संस्थांना या कार्यक्षेत्रातून सूट देण्यात आली आहे?

- A. सीमा रस्ते विकास मंडळ
- B. केंद्रीय राखीव पोलीस दल
- C. महसूल गुप्तचर संचालनालय
- D. संरक्षण संशोधन आणि विकास संस्था
- E. राष्ट्रीय नमुना सर्वेक्षण संस्था

**Options :**

1. ✘ केवळ A आणि B
2. ✘ A, B, C, D आणि E
3. ✔ केवळ A, B, C आणि D
4. ✘ केवळ A, C आणि D

Is Section Default? :

null

Question Number : 11 Question Id : 630680191080 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0.5

Weathered laterite mostly contains:

Options :

1. ✓ alumina, iron, manganese and titanium
2. ✗ alumina, limestone, manganese and iron
3. ✗ alkalies, lime, magnesium and titanium
4. ✗ alumina, iron and lime

Question Number : 12 Question Id : 630680191081 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0.5

The intertrappean beds are of:

Options :

1. ✗ marine origin
2. ✗ volcanic origin
3. ✓ fluvio-lacustrine origin
4. ✗ continental origin

Question Number : 13 Question Id : 630680191082 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0.5

The estimated age of Dongargarh granite is:

Options :

1. ✗ 600-1500 MY
2. ✗ 1050-2500 MY
3. ✗ 1500-2000 MY
4. ✓ 710-2000 MY

Question Number : 14 Question Id : 630680191083 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0.5

Anthophyllite, tremolite and wollastonite occur in:

Options :

1. ✓ Bichua stage

2. ✘ Junewani stage
3. ✘ Mansar stage
4. ✘ Lohangi stage

**Question Number : 15 Question Id : 630680191084 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0.5**

Wardha coal field is a:

**Options :**

1. ✘ broad syncline plunging SSW
2. ✘ broad anticline plunging SSE
3. ✘ broad anticline plunging NNE
4. ✔ broad anticline plunging NNW

**Question Number : 16 Question Id : 630680191085 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0.5**

The average value of poison's ratio for rock is:

**Options :**

1. ✘ 1.00
2. ✔ 0.25
3. ✘ 0.75
4. ✘ 1.50

**Question Number : 17 Question Id : 630680191086 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0 Correct Marks : 2 Wrong Marks : 0.5**

When sausage shaped bodies of one rock layer are sandwiched between layers of different rock types, the structure is described as a:

**Options :**

1. ✔ Boudinage
2. ✘ Mullion
3. ✘ Mineral lineation
4. ✘ Crenulation

Question Number : 18 Question Id : 630680191087 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Folds having multiple hinges are called \_\_\_\_\_.

Options :

1. ✘ Concentric folds
2. ✘ Box folds
3. ✔ Polyclinal folds
4. ✘ Curvilinear folds

Question Number : 19 Question Id : 630680191088 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Diapiric fold belongs to which of the following category:

Options :

1. ✘ Solid rock without pore space and liquid
2. ✔ Solid rock that is thoroughly broken up and fractured with some liquid in the fractures.
3. ✘ Liquid
4. ✘  
A loose aggregate of particles, buoyed up by gases or liquids, that could be derived either magmatic or sedimentary sources.

Question Number : 20 Question Id : 630680191089 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Stress characteristic of Wrench fault is:

Options :

1. ✘  $\sigma_1$  is horizontal and  $\sigma_3$  is vertical
2. ✔  $\sigma_1$  is horizontal and  $\sigma_2$  is vertical
3. ✘  $\sigma_1$  is vertical and  $\sigma_3$  is horizontal
4. ✘  $\sigma_1$  is vertical and  $\sigma_2$  is horizontal

Question Number : 21 Question Id : 630680191090 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

'Norite' is a gabbroic rock in which

Options :

1. ✘ OPX<CPX
2. ✔ OPX >CPX
3. ✘ OPX=CPX
4. ✘ OPX is absent

Question Number : 22 Question Id : 630680191091 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The staurolite zone established by Barrow is restricted to rocks having high content of:

Options :

1. ✘ Copper
2. ✘ Magnesium
3. ✘ Manganese
4. ✔ Iron

Question Number : 23 Question Id : 630680191092 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following types of layering in gabbroic rocks resemble the grading that is found in the sedimentary rocks?

Options :

1. ✘ Cryptic layering
2. ✔ Rhythmic layering
3. ✘ Mineral layering
4. ✘ Phase layering

Question Number : 24 Question Id : 630680191093 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following igneous plutons have been emplaced by the Cauldron subsidence mechanism?

Options :

1. ✘ Bysmalith
2. ✘ Batholiths
3. ✘ Chonolith
4. ✔ Ring dykes

Question Number : 25 Question Id : 630680191094 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Stromatactis is a phenomenon related to:

Options :

1. ✘ Intercrystalline porosity
2. ✔ Fenestral porosity
3. ✘ Moldic porosity
4. ✘ Fracture porosity

Question Number : 26 Question Id : 630680191095 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

\_\_\_\_\_ is a special feature, most observed in granite landscapes, characterized by small hills whose form is controlled by jointing.

Options :

1. ✘ Escarpment
2. ✘ Mushroom rock
3. ✔ Tor
4. ✘ Mesa

Question Number : 27 Question Id : 630680191096 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

A \_\_\_\_\_ is developed when molten magma flows horizontally between rock layers, bulging the layers nearer to the surface, upward to form a solidified mushroom-shaped structure.

Options :

1. ✘ Lopolith
2. ✘ Bysmalith
3. ✘ Dome
4. ✔ Laccolith

Question Number : 28 Question Id : 630680191097 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Davis provided a theoretical model for the cyclic landforms, which are expected to evolve in the period between the initial uplift of a land surface and its subsequent reduction to a surface of low relief. Such a surface of low relief is known as a \_\_\_\_\_.

Options :

1. ✓ Peneplain
2. ✗ Pediment
3. ✗ Escarpment
4. ✗ Roche moutonnée

Question Number : 29 Question Id : 630680191098 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

According to W.M.Davis, the three main controls on landscape development are:

Options :

1. ✓ Structure, Process, Stage
2. ✗ Climate, Structure, Lithology
3. ✗ Climate, Vegetation, Lithology
4. ✗ Structure, Process, Lithology

Question Number : 30 Question Id : 630680191099 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

\_\_\_\_\_ refers to the process of weathering, wherein, an increase in the volume of water in the cracks of rocks due to freezing at night, pushes apart the walls and widens the cracks.

Options :

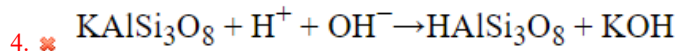
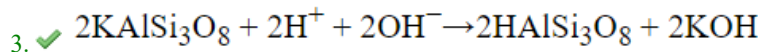
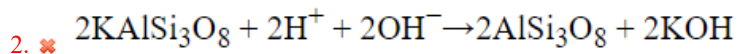
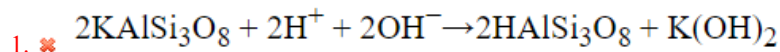
1. ✗ Exfoliation
2. ✗ Freeze-wedging
3. ✓ Frost-wedging
4. ✗ Hydration

Question Number : 31 Question Id : 630680191100 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Hydrolysis may be considered as the main process of chemical weathering. The reaction for the hydrolysis of orthoclase, which has the chemical formula  $\text{KAlSi}_3\text{O}_8$ , is\_\_\_\_\_.

Options :



Question Number : 32 Question Id : 630680191101 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

\_\_\_\_\_ drainage pattern generally develops upon homogenous rocks of uniform resistance, such as, horizontally bedded sedimentary rocks and massive igneous rocks that offer uniform resistance in the flow of water.

Options :

1. ✘ Rectangular

2. ✘ Braided

3. ✘ Trellis

4. ✔ Dendritic

Question Number : 33 Question Id : 630680191102 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following statements is TRUE ?

Options :

1. ✘

As a general rule, during monoscopic observation of radar data, images are more easily interpreted when shadows fall towards the observer.

2. ✘ As a general rule, during monoscopic observation of aerial photographs, images are more easily interpreted when shadows fall away from the observer.

3. ✘

As a general rule, during the observation of multispectral FCC, images are more easily interpreted when shadows fall away from the observer.

4. ✔ As a general rule, during monoscopic observation of aerial photographs, images are more easily interpreted when shadows fall towards the observer.

Question Number : 34 Question Id : 630680191103 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5



A \_\_\_\_\_ consists of two basic parts: A collection of annotated aerial photographs or satellite images, illustrative of the features or conditions to be identified; and a graphic or word description that sets forth in some systematic manner, the image recognition characteristics of those features or conditions.

Options :

1. ✓ Image interpretation key
2. ✘ Photogram
3. ✘ Overlapping area
4. ✘ Stereo-pair

Question Number : 35 Question Id : 630680191104 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following statement is TRUE with respect to USGS land use and land cover classification system?

Options :

1. ✓ The minimum level of interpretation accuracy using remotely sensed data should be at least 85%.
2. ✘ The minimum level of interpretation accuracy using remotely sensed data should be at least 95%.
3. ✘ The classification system should be applicable over small areas
4. ✘ Only single use of land should be recognized when possible.

Question Number : 36 Question Id : 630680191105 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

In a lineament map prepared from satellite imagery, the Major lineaments can range from \_\_\_\_\_.

Options :

1. ✓ A few kilometers to hundreds of kilometers in length
2. ✘ A few meters to hundreds of meters in length
3. ✘ 100 kilometers to thousands of kilometers in length
4. ✘ A few meters to Ten kilometers in length

Question Number : 37 Question Id : 630680191106 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The wavelengths of the spectral bands of IRS-ID LISS-III sensor are:

Options :

0.52-0.59 microns

0.62-0.68 microns

0.77-0.86 microns

1. ✓ 1.55-1.70 microns

0.40-0.50 microns

0.51-0.60 microns

0.61-0.70 microns

2. ✗ 0.71-1.10 microns

0.52-0.59 microns

0.62-0.68 microns

0.70-0.80 microns

3. ✗ 1.10-1.80 microns

0.52-0.59 microns

0.62-0.68 microns

0.77-0.86 microns

4. ✗ 1.80-2.40 microns

**Question Number : 38 Question Id : 630680191107 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Identify the correct match of spatial resolution of sensors of IRS 1A to 1D series of satellites.

**Options :**

Pan 5.8m

LISS-I 72.5m

LISS-II 36.25m

1. ✓ WiFS 188m

Pan 2.8m

LISS-I 72.5m

LISS-II 36.25m

2. ✗ WiFS 18.13m

Pan 5.8m

LISS-I 72.5m

LISS-II 36.25m

3. ✗ WiFS 18.13m

Pan 15.8m

LISS-I 72.5m

LISS-II 36.25m

4. ✗ WiFS 188m

Question Number : 39 Question Id : 630680191108 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is a correct match of the radiometric resolution of cameras on-board IRS satellites?

Options :

LISS-I 7 bit

LISS-II 7 bit

LISS-III 7 bit

1. ✓ PAN 6 bit

LISS-I 8 bit

LISS-II 8 bit

LISS-III 8 bit

2. ✗ PAN 6 bit

LISS-I 8 bit

LISS-II 8 bit

LISS-III 8 bit

3. ✗ PAN 7 bit

LISS-I 7 bit

LISS-II 8 bit

LISS-III 8 bit

4. ✗ PAN 6 bit

Question Number : 40 Question Id : 630680191109 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The wavelength bands of MSS of Landsat1 are:

Options :

0.5-0.6 microns

0.6-0.7 microns

0.7-0.8 microns

1. ✓ 0.80 - 1.1 microns

0.4-0.5 microns

0.6-0.7 microns

0.7-0.8 microns

2. ✗ 0.80 – 0.88 microns

0.4-0.5 microns

0.5-0.6 microns

0.6-0.7 microns

3. ✗ 0.7 – 0.8 microns

0.5-0.6 microns

0.6-0.7 microns

0.7-0.8 microns

4. ✘ 1.55 - 1.77 microns

**Question Number : 41 Question Id : 630680191110 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Which of the following statement is CORRECT about a conventional FCC?

**Options :**

1. ✘

In a false colour composite, targets with high near-infrared reflectance appear blue, those with a high red reflectance appear green, and those with a high green reflectance appear red, thus giving us a "false" presentation of the targets.

2. ✘

In a false colour composite, targets with high near-infrared reflectance appear red, those with a high red reflectance also appear red, and those with a high green reflectance appear blue, thus giving us a "false" presentation of the targets.

3. ✔

In a false colour composite, targets with high near-infrared reflectance appear red, those with a high red reflectance appear green, and those with a high green reflectance appear blue, thus giving us a "false" presentation of the targets.

4. ✘

In a false colour composite, targets with high near-infrared reflectance appear red, those with a high red reflectance also appear red, and those with a high green reflectance appear green, thus giving us a "false" presentation of the targets.

**Question Number : 42 Question Id : 630680191111 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Which of the following is the correct method to derive NDVI using the optical and NIR bands?

**Options :**

1. ✘  $NDVI = (GREEN - RED) / (GREEN + RED)$

2. ✘  $NDVI = (NIR - GREEN) / (NIR + GREEN)$

3. ✘  $NDVI = (NIR + RED) / (NIR - RED)$

4. ✔  $NDVI = (NIR - RED) / (NIR + RED)$

**Question Number : 43 Question Id : 630680191112 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

In GIS, during digitization, arcsnap tolerance \_\_\_\_\_.

**Options :**

1. ✔ Allows the end of an arc to be snapped to an existing arc

2. ✘ Dis-allows the end of an arc to be snapped to an existing arc

3. ✘ Allows the end of an arc to be snapped to the adjacent arc
4. ✘ Allows the mid-point of an arc to be snapped to an existing arc

**Question Number : 44 Question Id : 630680191113 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

In GIS, \_\_\_\_\_ is the term used to describe the geometric characteristics of objects which do not change under transformations and are independent of an co-ordinate system.

**Options :**

1. ✘ Geocoding
2. ✔ Topology
3. ✘ Grid
4. ✘ Attribute

**Question Number : 45 Question Id : 630680191114 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Heuristic qualitative approach, statistical quantitative approach and deterministic approach are the methodologies used to analyze \_\_\_\_\_ using GIS.

**Options :**

1. ✔ Landslides
2. ✘ Urban growth
3. ✘ Fault mapping
4. ✘ Joint mapping

**Question Number : 46 Question Id : 630680191115 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Submarine groundwater discharge in coastal waters can be best detected using \_\_\_\_\_.

**Options :**

1. ✘ NIR imagery
2. ✘ Radar imagery
3. ✔ Thermal imagery
4. ✘ LiDAR imagery

Question Number : 47 Question Id : 630680191116 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is correctly related to groundwater exploration using Magnetic methods of Geophysical survey?

Options :

1.  Determining sub-surface structures of large groundwater basins.
2.  Tracing tectonically disturbed zones.
3.  Determining iron content in groundwater basins.
4.  Identifying porous rocks in subsurface.
5.  Identifying magnetic anomaly due to contaminated groundwater.
6.  Mapping soil moisture
7.  Determining sub-surface dykes.
8.  Tracing limestone caves.

Question Number : 48 Question Id : 630680191117 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The expression relating porosity of a rock formation ( $n$ ), cementation factor ( $m$ ), formation resistivity ( $\rho$ ), and formation water resistivity ( $\rho_w$ ) is given as:

Options :

1.   $n^m = \rho_w \times \rho$
2.   $n^m = \rho_w / \rho$
3.   $n^m = \rho_w - \rho$
4.   $n^m = \rho_w + \rho$

Question Number : 49 Question Id : 630680191118 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

In Schulmberger arrangement of resistivity survey, "L" is distance between current electrodes, "a" is the distance between two inner potential electrodes. The apparent resistivity  $\rho_a$  for a measured resistance  $R=V/I$ , is given as:

Options :

1.   $(4\pi(L^2 - a^2)/a) \times (V/I)$
2.   $(4\pi(L^2 - a^2)/4a) \times (V/I)$
3.   $(2\pi(L^2 - a^2)/a) \times (V/I)$

4. ✓  $(2\pi(L^2 - a^2)/4a) \times (V/I)$

Question Number : 50 Question Id : 630680191119 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which one of the following method is related to the interpretation of VES curves?

Options :

1. ✗ Time-distance curve method
2. ✓ Auxiliary Point Chart Method
3. ✗ Cross hole method
4. ✗ Profiling method

Question Number : 51 Question Id : 630680191120 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Hydrologic cycle includes:

Options :

1. ✓ Evaporation, surface runoff, precipitation, subsurface runoff
2. ✗ Surface runoff, precipitation, subsurface runoff
3. ✗ Evaporation, surface runoff, precipitation
4. ✗ Evaporation, surface runoff, subsurface runoff

Question Number : 52 Question Id : 630680191121 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The other term used for groundwater flow map is:

Options :

1. ✗ Iso-contour map
2. ✗ Isopach map
3. ✗ Flydraulic map
4. ✓ Potentiometric map

Question Number : 53 Question Id : 630680191122 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Water that has been out of contact with the atmosphere for an appreciable part of geologic period is termed as:

**Options :**

1. ✘ Juvenile water
2. ✔ Connate water
3. ✘ Magmatic water
4. ✘ Meteoric water

**Question Number : 54 Question Id : 630680191123 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Which of the following is a dimensionless quantity?

**Options :**

1. ✘ Transmissivity
2. ✘ Hydraulic conductivity
3. ✘ Compressibility
4. ✔ Storage coefficient

**Question Number : 55 Question Id : 630680191124 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

The sum of Specific Retention and Specific Yield is:

**Options :**

1. ✘ Hydraulic Resistance
2. ✔ Porosity
3. ✘ Capillarity
4. ✘ Hydraulic Diffusivity

**Question Number : 56 Question Id : 630680191125 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Solid Granite is an example of:

**Options :**

1. ✔ Aquifuge
2. ✘ Aquitard
3. ✘ Aquiclude



4. ✘ Aquifer

Question Number : 57 Question Id : 630680191126 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following geologic media have the highest infiltration capacity?

Options :

1. ✘ Sandstone dominated area
2. ✔ Mature Karst area
3. ✘ Granitic terrain
4. ✘ Shale dominated area

Question Number : 58 Question Id : 630680191127 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

An aquifer has a cross-sectional area of  $800 \text{ m}^2$  and a hydraulic gradient of 0.01. If water is flowing from the aquifer at the rate of  $8 \text{ m}^3/\text{s}$ , the hydraulic conductivity (in m/s) of the aquifer is \_\_\_\_\_.

Options :

1. ✔ 1 m/s
2. ✘ 64 m/s
3. ✘ 8 m/s
4. ✘ 10 m/s

Question Number : 59 Question Id : 630680191128 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Layers of unfractured bedrock sloping at the same angle as the land surface \_\_\_\_\_ the aquifer recharge.

Options :

1. ✘ decrease to some extent
2. ✘ highly increase
3. ✘ rarely cause any effect to
4. ✔ almost completely eliminate

Question Number : 60 Question Id : 630680191129 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following statements is not true?

Options :

- ✘ Ratnagiri, Sindhudurg and Kolhapur districts yield good discharge to dug-wells.
- ✘  
In Gadchiroli, Amravati, Chandrapur, Nagpur and Yavatmal districts, sandstones are jointed and fractured and possess secondary porosity.
- ✘ The older alluvium below 80 m in Amravati, Akola, Buldhana, Jalgaon and Dhule districts is not very productive
- ✔  
Dhule, Nagpur, and Amravati districts are highly productive due to the presence of hydrogeological units such as Infra-trappean, Bagh Beds and Lametas

Question Number : 61 Question Id : 630680191130 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The vertical elevation difference between a point on the ground surface and the groundwater level at the top groundwater body is known as:

Options :

- ✔ Depth to water level
- ✘ Groundwater equipotential difference
- ✘ Piezometric surface
- ✘ Total hydraulic head gradient

Question Number : 62 Question Id : 630680191131 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following maps provides an overview of information on the groundwater volume that is potentially available for exploitation in an area?

Options :

- ✘ Hydro isobath Maps
- ✘ Groundwater Equipotential Difference Map
- ✘ Consequence Map
- ✔ Groundwater Prospect Map

Question Number : 63 Question Id : 630680191132 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

A liquid substance leaks through a sand aquifer having a porosity 20%, hydraulic conductivity of 40 m/day, and a hydraulic gradient of 1 m per 1000 m. With what velocity does the liquid substance move?

Options :

1. ✘ 10 cm/day
2. ✔ 20 cm/day
3. ✘ 40 cm/day
4. ✘ 80 cm/day

**Question Number : 64 Question Id : 630680191133 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

In which of the following rocks is Darcy's law obeyed for the groundwater flow?

**Options :**

1. ✘ Granite
2. ✔ Sandstone
3. ✘ Quartzite
4. ✘ Gneiss

**Question Number : 65 Question Id : 630680191134 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Artesian condition occurs when the:

**Options :**

1. ✘ Aquifer is unconfined
2. ✘ Water table is perched
3. ✘ Water table is above ground level
4. ✔ Piezometric surface is above ground level

**Question Number : 66 Question Id : 630680191135 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

During the pumping test of a confined groundwater, the abstraction rate was found to be  $87 \text{ m}^3/\text{h}$  and the groundwater layer thickness was found to be 22 m. A drawdown of 2 m is obtained between observation well 1 (radial distance from extraction well=300 m) and observation well 2 (radial distance from extraction well=500 m). Thus, the transmissivity of groundwater is [given,  $\ln(1.67) = 0.51$ ]:

**Options :**

1. ✘  $19.14 \times 10^{-4} \text{ m}^2/\text{s}$
2. ✘  $4.79 \times 10^{-4} \text{ m}^2/\text{s}$

3. ✘  $7.66 \times 10^{-4} \text{ m}^2/\text{s}$

4. ✔  $9.8 \times 10^{-4} \text{ m}^2/\text{s}$

**Question Number : 67 Question Id : 630680191136 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

The reciprocal of leakage coefficient is:

**Options :**

1. ✔ Hydraulic resistance

2. ✘ Specific Storage

3. ✘ Specific Retention

4. ✘ Hydraulic diffusivity

**Question Number : 68 Question Id : 630680191137 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Which of the following has highest Specific Yield?

**Options :**

1. ✘ Coarse sand

2. ✘ Coarse gravel

3. ✔ Dune sand

4. ✘ Loess

**Question Number : 69 Question Id : 630680191138 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

'Pressure aquifer' is a term used synonymously for:

**Options :**

1. ✘ Unconfined Aquifer

2. ✔ Confined Aquifer

3. ✘ Leaky Aquifer

4. ✘ Idealized Aquifer

**Question Number : 70 Question Id : 630680191139 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Choose the incorrect statement:

Options :

1. ✘

Confined aquifer becomes an unconfined aquifer when the potentiometric surface falls below the bottom of the upper confining bed.

2. ✘ When the piezometric surface in a confined aquifer lies above the ground surface, it results in a flowing well.

3. ✘

The water level in a well penetrating a confined aquifer defines the elevation of the potentiometric surface at that point.

4. ✔

The piezometric surface of a confined aquifer is an imaginary surface which is at a much higher hydrostatic pressure level of the water in the aquifer.

Question Number : 71 Question Id : 630680191140 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following has the lowest hydraulic conductivity?

Options :

1. ✘ Coarse gravel

2. ✘ Dune sand

3. ✘ Fine sand

4. ✔ Limestone

Question Number : 72 Question Id : 630680191141 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following is not considered under consolidated aquifers in Maharashtra?

Options :

1. ✘ Deccan Traps

2. ✘ Saucer series

3. ✔ Gondwanas

4. ✘ Vindhyan

Question Number : 73 Question Id : 630680191142 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Choose the incorrect statement:

Options :

1. ✘

In the Gadchiroli, Amravati, Nagpur and Yavatmal districts, the sandstones of Gondwana formations are jointed and fractured and possess secondary porosity.

2. ✖

In the Ratnagiri, Sindhudurg and Kolhapur districts where the coastal sedimentaries and laterite predominate, yield good discharge to dug-wells.

3. ✔ In the South Ahmednagar, Solapur, Osmanabad, districts, where basalt flows are present without intertrappean sediments and dyke intrusions but with prominent red bole horizons, the permeability is extremely poor.

4. ✖

In saline tract of Purna alluvial basin which spreads in parts of Amravati, Akola and Buldhana districts, the salinity of ground water seems to be related with geological set up of the area because of poor transmissivity of the aquifer.

**Question Number : 74 Question Id : 630680191143 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

The storage coefficient is the product of:

**Options :**

1. ✔ Specific storage coefficient and groundwater thickness

2. ✖ Hydraulic resistance and groundwater thickness

3. ✖ Specific yield and Specific retention

4. ✖ Storativity and Specific storage coefficient

**Question Number : 75 Question Id : 630680191144 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

The precipitation at a specific location expressed as a water depth over a horizontal surface during a period of observation is known as:

**Options :**

1. ✖ Precipitation Yield

2. ✔ Precipitation Rate

3. ✖ Evaporation Rate

4. ✖ Areal Precipitation

**Question Number : 76 Question Id : 630680191145 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

The general definition of a watershed.

**Options :**

1. ✘ The area by where surface water flows to another stream.
2. ✘ Land area in the streamflow density for flows at a given stream point
3. ✘ Areas with stream drainage network at a given stream can drain different direction.
4. ✔ All land area which drains into a stream system, upstream from its mouth and is surrounded with a divide.

**Question Number : 77 Question Id : 630680191146 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Strahler system is designated \_\_\_\_\_.

**Options :**

1. ✘ To estimate evapotranspiration
2. ✘ To estimate ground water flow
3. ✘ To estimate precipitation
4. ✔ To estimate the joining of streams of the same order.

**Question Number : 78 Question Id : 630680191147 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

The micro-water-shed is a unit of measurement that encompasses all land that has an area of \_\_\_\_\_ and contributes to total run-off to a common point or outlet surrounded by a ridge line.

**Options :**

1. ✘ 1-100Hect
2. ✔ 100-1000Hect
3. ✘ 1000-10,000Hect
4. ✘ >50,000Hect

**Question Number : 79 Question Id : 630680191148 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

A geological formation that contains water, transmits it from one point to another, and yields sufficient groundwater is called \_\_\_\_\_.

**Options :**

1. ✘ Albedo
2. ✔ Aquifer
3. ✘ Aquiclude



4. ✘ Alluvial fans

Question Number : 80 Question Id : 630680191149 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Land use planning primarily deals with:

Options :

1. ✘ Industrial commercial areas
2. ✘ Residential areas
3. ✔ Forest, crop and swamp land
4. ✘ Infrastructural areas

Question Number : 81 Question Id : 630680191150 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which of the following agronomic practices in India is being used to prevent land erosion?

Options :

1. ✘ Rain fall ,Infiltration, evapotranspiration measures
2. ✔ Crop rotation, contour-cover farming, and afforestation
3. ✘ Run off reduction, trenching, contour bunding measures
4. ✘ Contour bunding, Terracing, nullah bunding

Question Number : 82 Question Id : 630680191151 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

List out the engineering measures being adopted to protect land erosion in India.

Options :

1. ✘ Crop rotation ,contour farming and cover cropping
2. ✘ Water infiltrarion,water logging measures,
3. ✔ Contour bunding, contour trenching, and terracing
4. ✘ Rainfall-run off ,afforestation

Question Number : 83 Question Id : 630680191152 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

The unit hydrograph theory was enunciated by whom?



Options :

1. ✓ Le-Roy K. Shermen
2. ✗ Robert E. Horten
3. ✗ Merrill Bernard
4. ✗ David K. Todd

Question Number : 84 Question Id : 630680191153 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

What are the basic requirements for design of artificial recharge structures in the watershed region?

Options :

1. ✗ Area with abundant surface water bodies
2. ✗ Mountainous rock terrains
3. ✓ Areas where ground water levels are declining on regular basis
4. ✗ Hard crystalline rock terrains

Question Number : 85 Question Id : 630680191154 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

List out the false statement on water table conditions in groundwater basins.

Options :

1. ✗ The water table changes when discharge of water is not balanced with recharge of water.
2. ✗ The water is generally above the land surfaces in at lakes and tanks.
3. ✓ The water table is more or less flat during excess with drawl in ground water basins.
4. ✗ The water table is lowered near high volume of pumping wells.

Question Number : 86 Question Id : 630680191155 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Pumping too much in relation to recharge can result in \_\_\_\_\_.

Options :

1. ✗ Ground Water table increases
2. ✗ Well water begins to flow more freely.
3. ✗ The level of ground water rises.
4. ✓ A cone of depression will form

**Question Number : 87 Question Id : 630680191156 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Which category includes flooding, basins or percolation tanks, stream augmentation, ditch and furrow systems, and over irrigation used for artificial recharge of groundwater?

**Options :**

1. ✓ Direct surface techniques
2. ✘ Direct sub-surface techniques
3. ✘ Combination of surface and sub surface techniques
4. ✘ Indirect techniques

**Question Number : 88 Question Id : 630680191157 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

What exactly is drought in the country's watershed regions?

**Options :**

1. ✘ Period of highly variable rainfall in the watershed region
2. ✘ River water levels fall below the watershed region
3. ✓ A specific period of below-average rainfall in the watershed region.
4. ✘ The availability of water for human and animal survival is decreasing.

**Question Number : 89 Question Id : 630680191158 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

What is hydro-geochemistry?

**Options :**

1. ✓ The subject deals with the chemistry of surface and subsurface waters in relation to regional geology.
2. ✘ The subject deals with surface water qualities
3. ✘ The subject deals with geochemistry of minerals and rocks
4. ✘ The subject deals with petrochemical studies of rocks and minerals

**Question Number : 90 Question Id : 630680191159 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

What are the drinking water standards specified for total TDS by the Bureau of Indian Standards (BIS) for unsuitability?

**Options :**

1. ✘ TDS 4000-5000Mg/litre
2. ✘ TDS 3000-4000Mg/litre
3. ✘ TDS 2000-3000Mg/litre
4. ✔ TDS upto 2000Mg/litre

**Question Number : 91 Question Id : 630680191160 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

What are the health effects of excess fluoride content in drinking water?

**Options :**

1. ✘ Lung diseases
2. ✘ Heart diseases
3. ✔ Fluorosis
4. ✘ Skin diseases

**Question Number : 92 Question Id : 630680191161 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

How many groundwater provinces are demarcated in India? Maharashtra state comes under which province?

**Options :**

1. ✔ 8 provinces, Deccan trap province
2. ✘ 6 provinces, Precambrian crystalline provinces
3. ✘ 5 provinces, Gondwana sedimentary provinces
4. ✘ 7 provinces, Cambrian sedimentary provinces

**Question Number : 93 Question Id : 630680191162 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Which Indian first state has made ground water management and rainwater harvesting structures mandatory?

**Options :**

1. ✘ Maharashtra
2. ✘ Telangana
3. ✔ Tamil Nadu

4. ✘ Gujarat

Question Number : 94 Question Id : 630680191163 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

\_\_\_\_\_ is the basis on which groundwater management is planned with withdrawals that could be made without negatively affecting the aquifer inventory.

Options :

1. ✘ Monthly ground water yield
2. ✘ Annual ground water yield
3. ✔ Operational ground water yield
4. ✘ Percentage of ground water yield

Question Number : 95 Question Id : 630680191164 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Which Central Ground Government Organization regularly audits the country's total subsurface water?

Options :

1. ✔ Central Ground Water Board
2. ✘ Central Road Research Institute
3. ✘ Geological Survey of India
4. ✘ Oil and Natural Gas Commission

Question Number : 96 Question Id : 630680191165 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

Borewells drilled close to each other in hard terrain will \_\_\_\_\_.

Options :

1. ✘ Increases ground water yield
2. ✘ Impact on ground water yield
3. ✘ No change in ground water yield
4. ✔ Reduce Ground water yield and it depends upon local hydrogeological conditions

Question Number : 97 Question Id : 630680191166 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Wrong Marks : 0.5

What role does the hydrological cycle play in assessing surface and subsurface water systems in the region?

**Options :**

1. ✓ Precipitation or rain fall Evaporation, Evapotranspiration Surface-runoff Groundwater flow
2. ✘ Surface run-off-Wind flow-Vegetation, infiltration
3. ✘ Surface and sub-surface water
4. ✘ Land surface-Infiltration, Ground-water flow

**Question Number : 98 Question Id : 630680191167 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

In general, Maharashtra state ground water province observed: old open wells are drying due to:

**Options :**

1. ✘ People are not utilising old open wells for any utilisation
2. ✘ Wells are covered by trees, shrubs vegetation
3. ✘ Wells are not properly maintained regularly by local people
4. ✓ Additional bore wells are drilled close proximity to the existing old wells

**Question Number : 99 Question Id : 630680191168 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Which is the world's largest multipurpose lift irrigation project constructed on the Godavari River for effective management of surface water system to facilitate drought prone watershed areas?

**Options :**

1. ✘ Nizam sagar Project
2. ✘ Sriram Sagar Project
3. ✘ Koyana reservoir
4. ✓ Kaleswaram Project

**Question Number : 100 Question Id : 630680191169 Option Shuffling : Yes Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0**

**Correct Marks : 2 Wrong Marks : 0.5**

Trace out the correct statement from the following:

**Options :**

- There are in all around 22,250 micro watersheds in Maharashtra. According to estimates around 50% of the
1. ✘ geographical area requires watershed treatments

2. ✘ There are in all around 85,450 micro watersheds in Maharashtra. According to estimates around 70% of the geographical area requires watershed treatments

3. ✘ There are in all around 65,450 micro watersheds in Maharashtra. According to estimates around 75% of the geographical area requires watershed treatments

4. ✔ There are in all around 44,185 micro watersheds in Maharashtra. According to estimates around 67% of the geographical area requires watershed treatments