

GS FOUNDATION PROGRAM 2024*to be filled by the student:***BATCH: D10**

NAME: _____

ForumIAS Roll No: 19100 _____

Date: __/__/_____

Email Id: _____

Mobile No. _____

*For Office Use Only***Feedbacks:**

	Excellent	Very Good	Good	Average	Immediate Efforts/Improvement Required
Content					
Presentation					
Structure					
Consistency					
Revision/Recall					

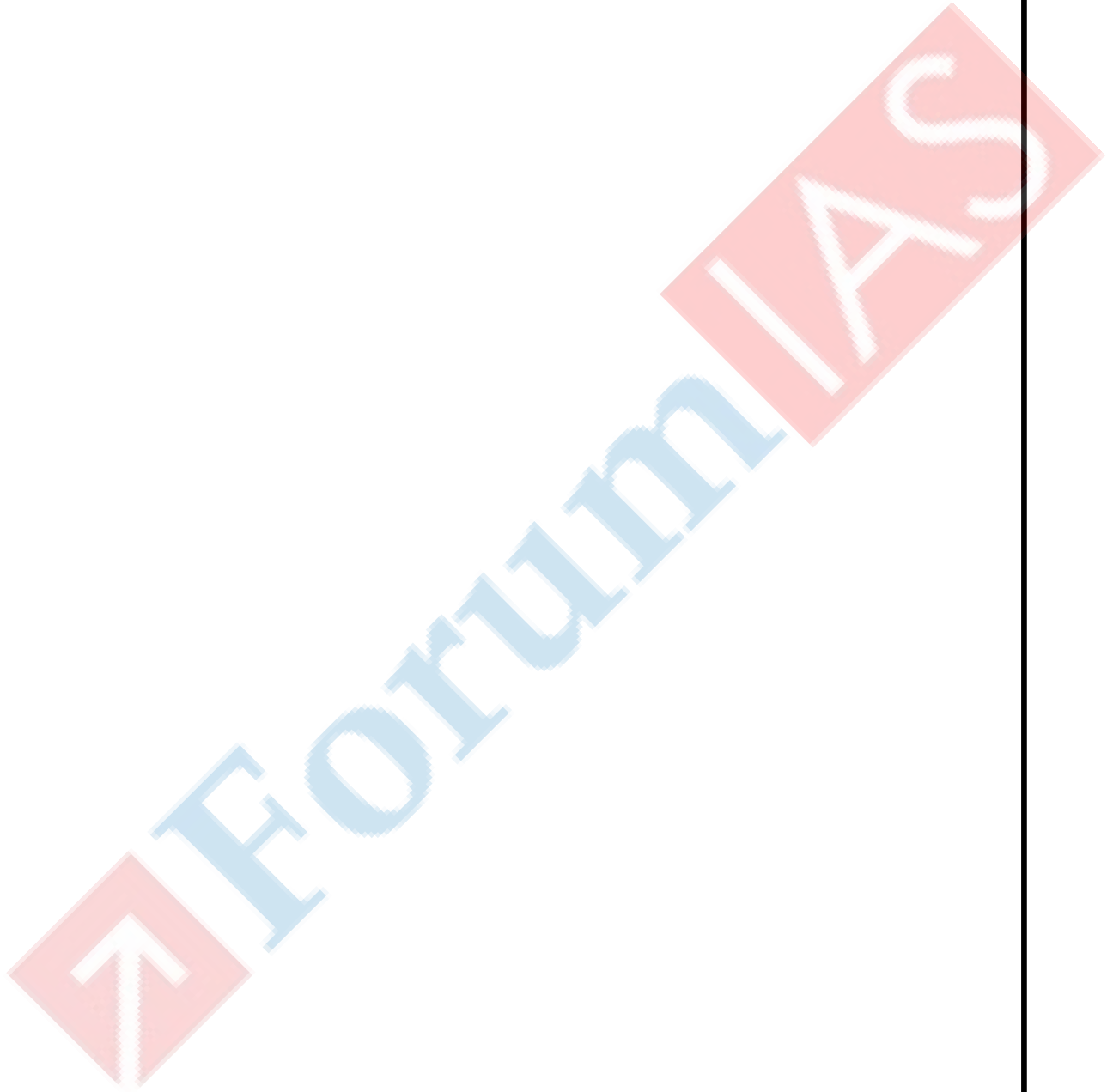
Marks:

Subjective	Objective	Total

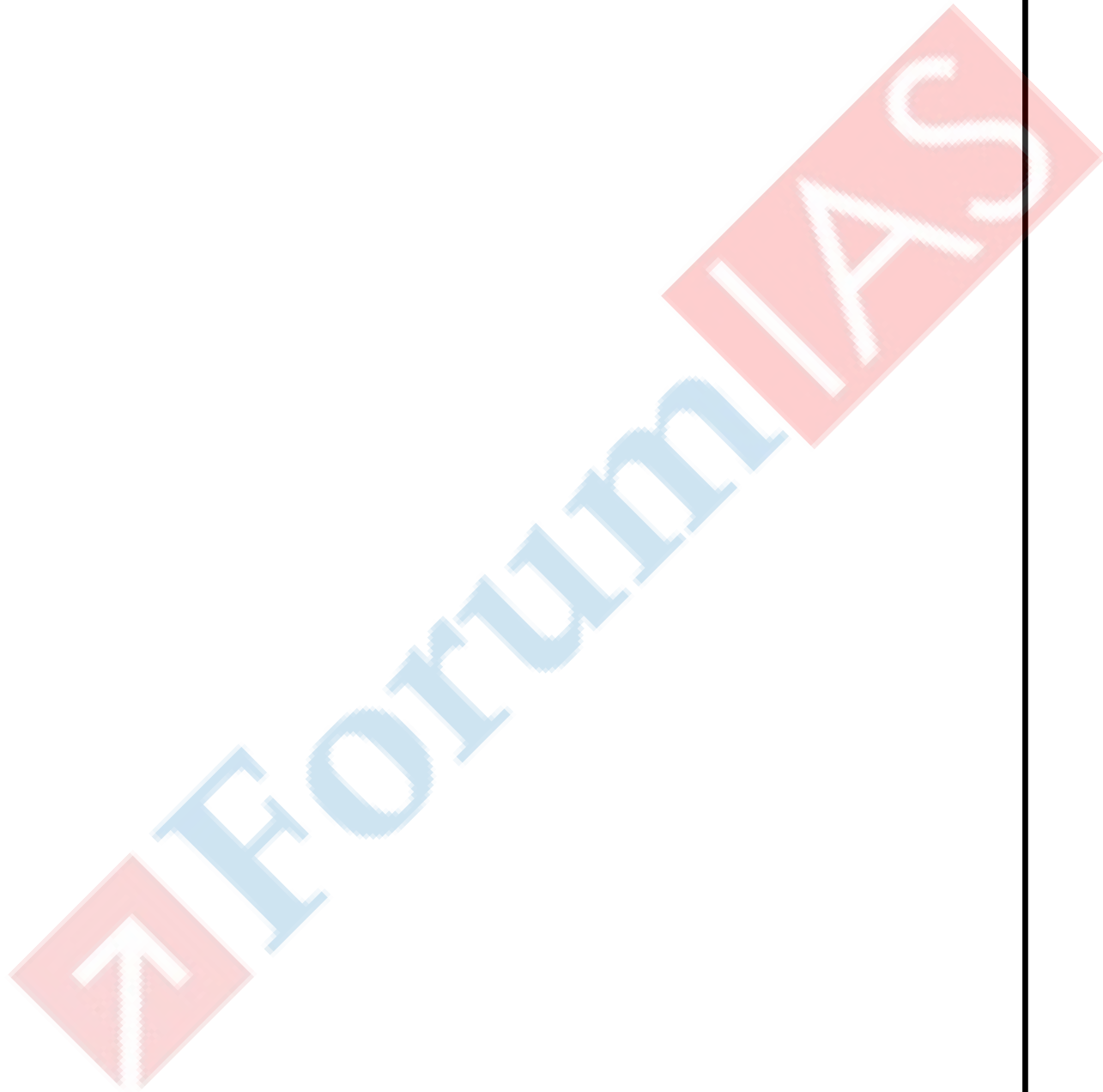
Subjective Questions:

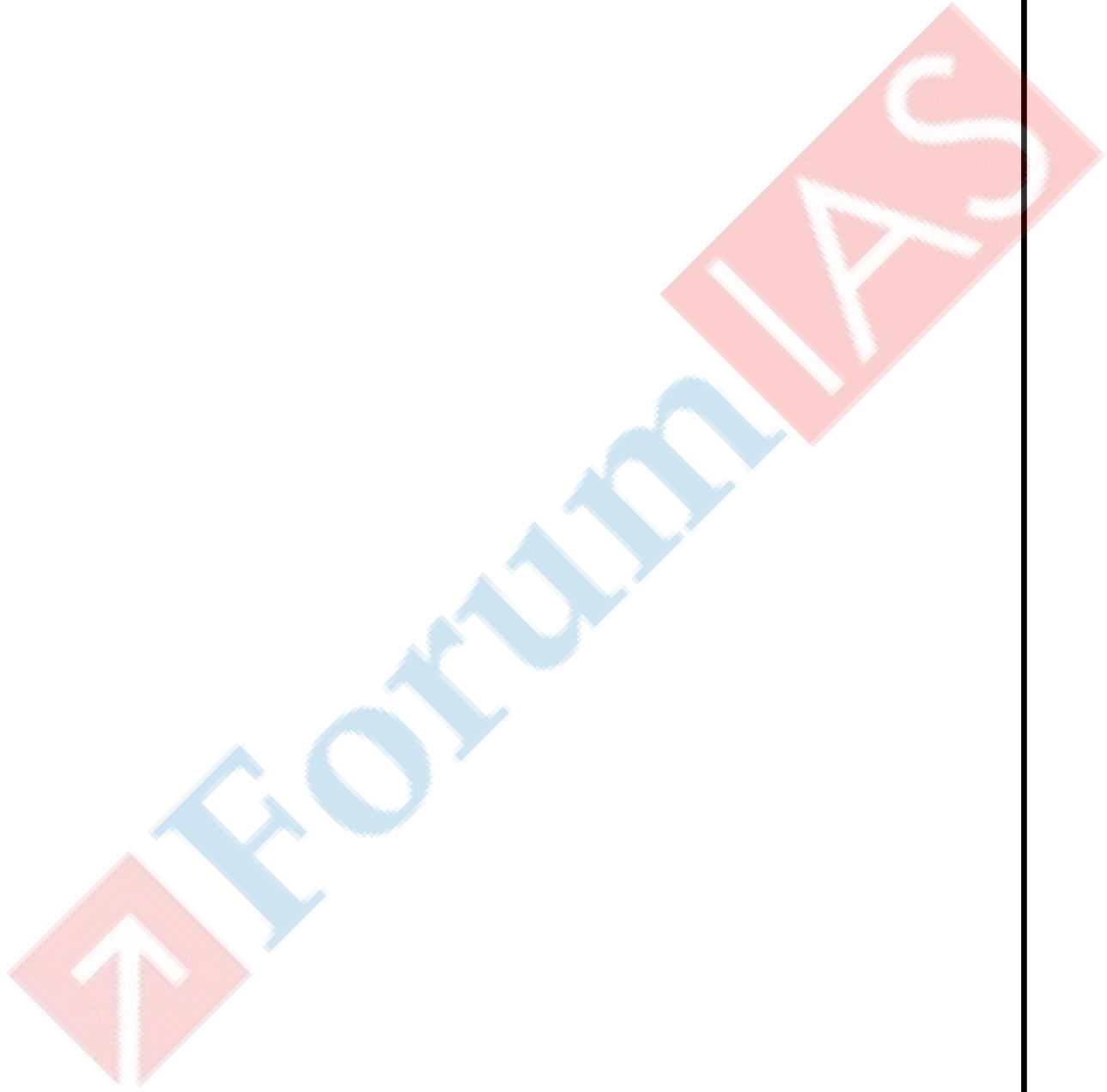
Q.1) Explain the global distribution of volcanoes and their relationship with plate tectonics. (10 marks, 150 words)





Q.2) Does the judiciary fall within the definition of "State" as per Article 12 of the Indian Constitution? Discuss. (10 marks, 150 words)





Objective Questions:

Q.1) Which of the following statements are correct regarding the rocks of Earth's Crust?

1. Igneous rocks are formed out of recrystallization and reorganization of existing rocks.
2. Sedimentary rocks are formed through the process of lithification.
3. Metamorphic rocks form under the action of pressure, volume and temperature changes.

Select the correct answer using the code given below:

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Q.2) With respect to Igneous rocks, which of the following statements is/are correct?

1. Felsic igneous rocks are denser and darker in color than Mafic rocks.
2. They occur in strata and have a rich fossil presence.
3. As compared to volcanic rocks, plutonic rocks have a larger crystal size.

Select the correct answer using the code given below:

- a) 1 and 3 only
- b) 2 only
- c) 3 only
- d) 2 and 3 only

Q.3) Consider the following statements:

1. Article 3 provides for the admission of new states that are not part of the Union of India.
2. Settlement of an international boundary dispute does not require a constitutional amendment.
3. The 100th Constitutional Amendment Act of 2015 was enacted to give effect transfer of territories between India and Bangladesh.

Which of the statements given above is/are **incorrect**?

- a) 1 and 2 only
- b) 1 only
- c) 2 and 3 only
- d) 1, 2 and 3

Q.4) Consider the following statements:

1. A country is a 'federation of states' when it is the result of an agreement among the states.
2. States which come together as a 'Union', does not have a right to secede from the federation.

Which of the statements given above is/are correct?

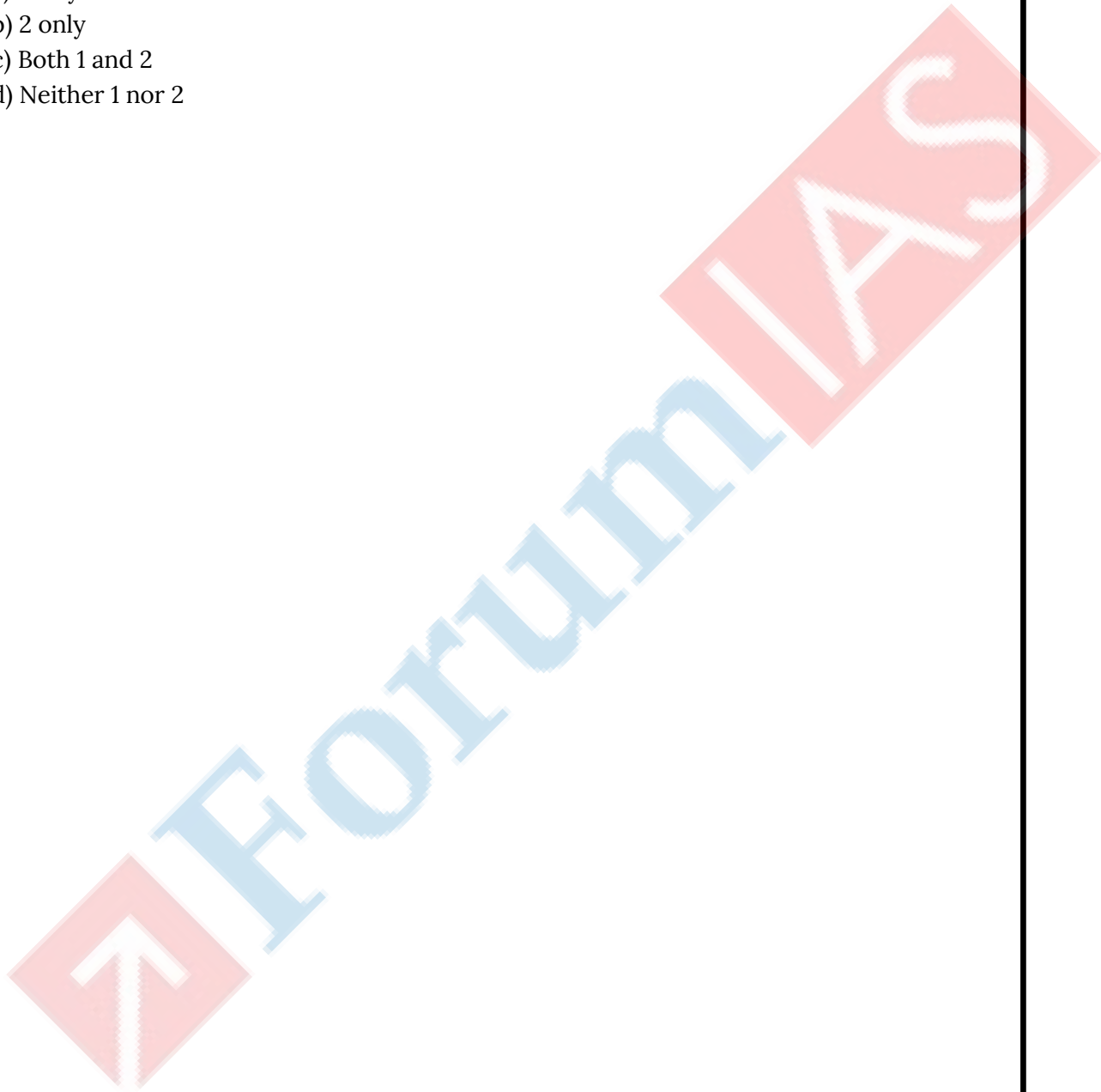
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.5) Consider the following statements:

1. With reference to the Constitution, the term 'Union of India' does not include Union territories.
2. The acquired territories are directly administered by the Central government.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2



GS Foundation Program 2024 | D10 | Benchmark Assignment #06

Subjective Questions:

Q.1) Explain the global distribution of volcanoes and their relationship with plate tectonics.

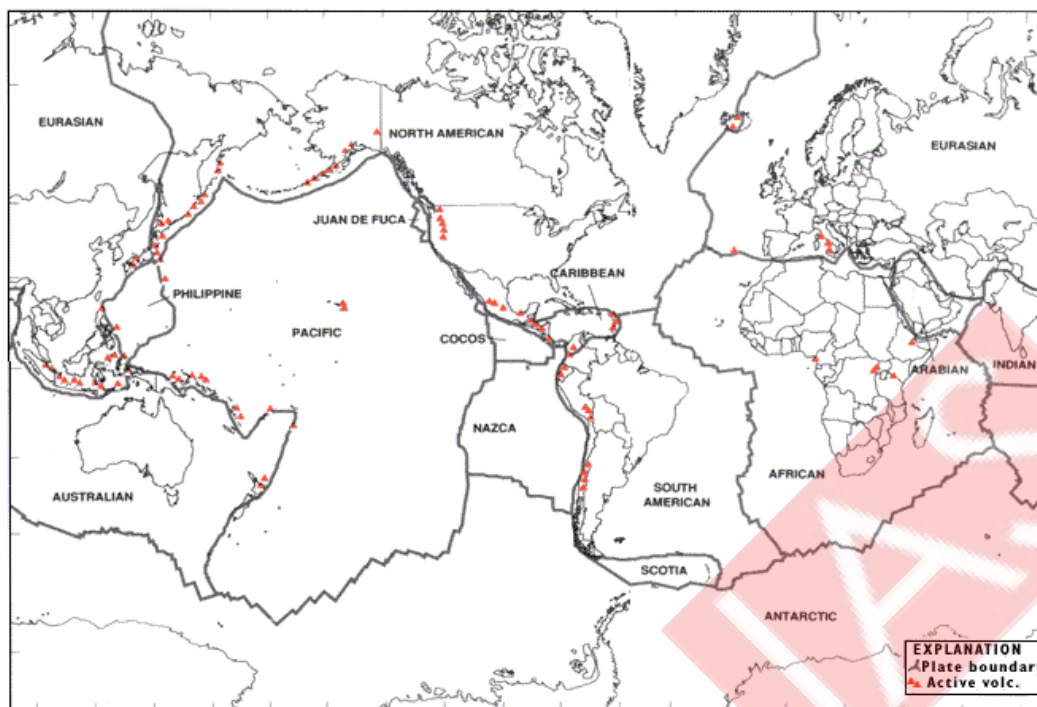
Volcanoes are geological features that form when molten rock, known as magma, rises to the Earth's surface. They are typically found at plate boundaries where the Earth's tectonic plates interact. Volcanic activity is a result of the movement and processes occurring within the Earth's mantle and crust.

Volcanoes are not randomly distributed around the world but have a distinct global distribution pattern. They are primarily found along plate boundaries, where tectonic forces and interactions create conditions conducive to volcanic activity. The global distribution of volcanoes can be categorized into three main types:

Convergent Boundaries: Volcanoes are commonly found at convergent plate boundaries, where two tectonic plates collide. In these regions, one plate subducts beneath the other, forming subduction zones. The subducting plate descends into the mantle, triggering the melting of rocks and the generation of magma. This magma eventually rises to the surface, resulting in the formation of volcanic arcs. **The Pacific Ring of Fire, encircling the Pacific Ocean, is a prime example of a region with numerous volcanoes along convergent boundaries.**

Divergent Boundaries: Volcanic activity is also prevalent at divergent plate boundaries, where two plates move away from each other. As the plates separate, magma from the underlying mantle rises to fill the gap, leading to the formation of new crust. This process occurs along mid-ocean ridges, which are underwater volcanic mountain chains. **The Mid-Atlantic Ridge and the East Pacific Rise are notable examples of divergent boundaries with volcanic activity.**

Intraplate Volcanism: In addition to plate boundaries, volcanoes can also form within tectonic plates, away from plate boundaries. These intraplate volcanic hotspots occur due to mantle plumes, which are upwellings of abnormally hot rock from deep within the Earth. **The Hawaiian Islands, located in the middle of the Pacific Plate, are a well-known example of intraplate volcanic activity.**



Relationship with plate tectonics.

The relationship between volcanoes and plate tectonics is closely intertwined. Plate tectonics is the theory that describes the movement and interactions of Earth's lithospheric plates. Volcanic activity is primarily concentrated at plate boundaries, where the plates interact in different ways.

1. **Convergent boundaries:** Two plates collide, causing subduction. The descending plate heats up, melts the mantle, and forms magma, resulting in volcanic arcs like the Andes and the Cascades.
2. **Divergent boundaries:** Plates move apart, allowing magma from the mantle to fill the gap and create new crust. This volcanic activity occurs along mid-ocean ridges, such as the East Pacific Rise and the Mid-Atlantic Ridge.

Plate tectonics plays a crucial role in the formation and distribution of volcanoes. The interactions between plates at convergent boundaries lead to the subduction of one plate, resulting in volcanic arcs. Divergent boundaries facilitate the upwelling of magma, forming new crust and mid-ocean ridges. While transform boundaries are not primarily associated with volcanic activity, they can experience localized volcanic eruptions. Understanding the relationship between plate tectonics and volcanism is essential for studying and predicting volcanic activity and its associated hazards.

Q.2) Does the judiciary fall within the definition of "State" as per Article 12 of the Indian Constitution? Discuss.

Article 12 of the Indian Constitution, the term "State" is defined for the purpose of fundamental rights. It includes the Government and Parliament of India, the Government and the Legislature of each State, and all local or other authorities within the territory of India or under the control of the Government of India.

IS JUDICIARY INDEPENDENT FROM THE STATE?

The interpretation of whether the judiciary is included as a part of the "State" under Article 12 has been a subject of judicial analysis. The judiciary, being an independent and separate arm of the government, is not explicitly mentioned in the definition of the State under Article 12. However, the Supreme Court of India in **Rupa Ashok Hurra vs Ashok Hurra 2002** has held that in certain circumstances, the judiciary can be considered a part of the State under Article 12.

These criteria include:

1. **Functioning as a State:** If the judiciary is performing functions that are typically performed by the State, such as administering justice, exercising public functions, or having the power to issue binding orders, it may be considered a part of the State.
2. **Control by the Government:** If the judiciary is subject to significant control or influence by the government, it may be treated as a part of the State. This control can be in the form of appointment and removal of judges, financial control, or administrative control.
3. **Public Function:** If the judiciary is performing public functions and exercising powers that impact the rights and duties of individuals, it may be considered a part of the State.

Based on these criteria, the judiciary has been held to be a part of the State in certain situations. **For example, when the judiciary exercises administrative or executive functions, or when it acts as an employer, it may be treated as a State for the purpose of fundamental rights.**

However, it is important to note that the judiciary is primarily an independent and separate institution, and its inclusion as a part of the State under Article 12 is limited to specific circumstances. The judiciary also plays a vital role in safeguarding fundamental rights and ensuring the rule of law.

Objective Questions:

Q.1) Which of the following statements are correct regarding the rocks of Earth's Crust?

1. Igneous rocks are formed out of recrystallization and reorganization of existing rocks.
2. Sedimentary rocks are formed through the process of lithification.
3. Metamorphic rocks form under the action of pressure, volume and temperature changes.

Select the correct answer using the code given below:

- a) 1 and 2 only
 b) 2 and 3 only
 c) 1 and 3 only
 d) 1, 2 and 3

Ans) b

Exp) Option b) is correct.

Statement 1 is Incorrect: Igneous –in Latin means 'Fire'. Igneous Rocks are **solidified form of magma and lava**. When magma in its upward movement cools and turns into solid form it is called igneous rock. The process of cooling and solidification can happen in the earth's crust or on the surface of the earth. Granite, gabbro, pegmatite, basalt and tuff are some of the examples of igneous rocks.

Statement 2 is correct: Sedimentary rocks are formed from sediments transported by exogenous agencies. These sediments are deposited in the form of layers and turn into rocks through compaction. This process is known as **lithification**. Sedimentary rocks are also called **stratified rocks**. **Sandstone, conglomerate, limestone, shale, loess** are examples of Sedimentary rock.

Statement 3 is correct: The word metamorphic means 'change of form'. Metamorphic rocks form under the action of pressure, volume and temperature changes. Metamorphism is a process by which already consolidated rocks undergo **recrystallization and reorganization of materials** within original rocks. Marble and Gneiss are examples of these rocks. Knowledge Base: **Petrology** is science of rocks. A petrologist studies all aspects of rocks i.e. Mineral composition, texture, structure, origin, occurrence, alteration and relationship with other rocks.

Q.2) With respect to Igneous rocks, which of the following statements is/are correct?

1. Felsic igneous rocks are denser and darker in color than Mafic rocks.
2. They occur in strata and have a rich fossil presence.
3. As compared to volcanic rocks, plutonic rocks have a larger crystal size.

Select the correct answer using the code given below:

- a) 1 and 3 only
 b) 2 only
 c) 3 only
 d) 2 and 3 only

Ans) c

Exp) Option c is correct.

Statement 1 is incorrect. Felsic igneous rocks are made up of acidic lava and have high portion of silica which makes them less dense and lighter in color as compared to mafic rocks.

Mafic rocks are made of basic lava and have higher portion of aluminum and iron.

Statement 2 is incorrect. Igneous rocks normally have a crystalline structure. They do not occur in strata. They do not contain any fossils either. This is because they are formed directly from lava or magma, not sediment.

Sedimentary rocks have a rich fossil presence.

Statement 3 is correct. Volcanic rocks (extrusive igneous rocks) are formed due to solidification of lava at the surface of Earth. They solidify rapidly and as a result it has a small crystal size. Basalt is a common example of it. Whereas in plutonic rocks (intrusive igneous rocks), solidification of magma is at great depths and rate of cooling is much slow as a result of which size of crystal is very large. Granite is an example of the plutonic rocks.

Q.3) Consider the following statements:

1. Article 3 provides for the admission of new states that are not part of the Union of India.
2. Settlement of an international boundary dispute does not require a constitutional amendment.
3. The 100th Constitutional Amendment Act of 2015 was enacted to give effect transfer of territories between India and Bangladesh.

Which of the statements given above is/are incorrect?

- a) 1 and 2 only
- b) 1 only
- c) 2 and 3 only
- d) 1, 2 and 3

Ans) b

Exp) Option b is correct.

Statement 1 is incorrect. Article 2 grants two powers to the Parliament:

- the power to admit into the Union of India new states
- the power to establish new states.

The first refers to the admission of states which are already in existence, while the second refers to the establishment of states which were not in existence before.

Article 3 relates to the formation of or changes in the existing states of the Union of India.

Statement 2 is correct. The Supreme Court in 1969 ruled that settlement of an international boundary dispute does not require a constitutional amendment. It can be done by executive action as it does not involve cession of Indian territory to a foreign country.

Statement 3 is correct. The 100th Constitutional Amendment Act (2015) was enacted to give effect to the acquiring of certain territories by India and transfer of certain other territories to Bangladesh.

Knowledge Base:

The Supreme Court held that the power of Parliament to diminish the area of a state (under Article 3) does not cover cession of Indian territory to a foreign country. Hence, Indian territory can be ceded to a foreign state only by amending the Constitution under Article 368.

Q.4) Consider the following statements:

1. A country is a 'federation of states' when it is the result of an agreement among the states.
2. States which come together as a 'Union', does not have a right to secede from the federation.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Ans) c

Exp) Option c is correct

Statement 1 is correct. A country is called 'federation of states' when it is the **result of an agreement among the states**. According to Dr. B.R. Ambedkar, countries like USA is 'federation of states' because the federation is the result of an agreement among the states.

Statement 2 is correct. States which come together as a 'Union', does not have right secede from the federation. Article 1 describes India, that is, Bharat as a 'Union of States' rather than a 'Federation of States'. The Indian federation is a Union because it is indestructible. India is an integral whole and divided into different states only for the convenience of administration.

Q.5) Consider the following statements:

1. With reference to the Constitution, the term 'Union of India' does not include Union territories.
2. The acquired territories are directly administered by the Central government.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Ans) c

Exp) Option c is correct

Statement 1 is correct. In the First Schedule of the Constitution, the States and Territories are specified. The 'Union of India' includes only the states. The expression 'Territory of India' not only includes states, but also includes the Union territories and the territories that may be acquired by the Government of India at any future time. Hence, the 'Territory of India' is wider expression than the 'Union of India'.

Statement 2 is correct. The Union territories and the **acquired territories are directly administered by the Central government.**