(Please do not write anything except the question number in this space) कृपया इस स्थान में प्रश्न संख्या के अतिरिक्त कुछ न लिखें।

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Ans

What do you understand by theory of Continental drift. ? Discuss prominent evidences in its support. (100 words)

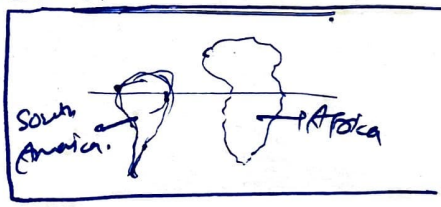
Ans

The Continental drift theory was proposed by Alfred Wegner in 1912. This theory states that the continents were part of one large Supercontinent called 'Pangea'. Then the continent broke down mostly into two halves one is Laurasia (north) and Gondwana (south) the other.

The intro clearly states who proposed the theory, when, and its basic premise (Pangaea, Laurasia, Gondwana). It's a good start.

Evidences supporting this theory :

1. Jig Saw fit
   - ↳ The fit of continents like the east coast of South America fits perfectly with west coast of Africa.
   - ↳ Bullard, Supercomputer Based Reconstruction also proved it



2. Fossil Evidences
   - ↳ The fossils of Mesosaurus (a water reptile) found in Brazil and South Africa
   - ↳ deposits of gold of Brazil and Ghana also have similar properties

Core concepts are well understood. Examples are appropriate

3. Geological Structure
   - ↳ Similar mountain ranges, rock strata found in different continents
   - ↳ for eg:- mountains of North America and of UK and Norway

Multiple spelling errors and some grammatical slips. Proofreading is essential

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Glacial deposits

↳ In Africa, India, Australia and South America have same glacial deposits.

↳ They all were part of Gondwana land.

Improve the sentence formation

Limitations:

✓ Explain only some evidences but Cannot gave theis physical force

✓ Can't explain forces behind the breaking of Continents 'Pangae'

✓ Can't explain the mechanism of drift theory

The limitations are correctly identified (lack of a viable mechanism/force). The concluding remark rightly points out its foundational role for plate tectonics.

Rama it could not explain exactly the formation of continents but laid the foundation of upcoming theories such as Plate tectonic, Sea floor spreading etc. Some evidences support today's drift movement of continents

Ans =

Why are the world's fold mountain system located along the margins of continents? Bring out the association b/w the global distribution of fold mountains and the earthquakes & volcanoes. (150 words)

Ans =

The fold mountain system is formed when two oceanic/continental plates move towards each other and there is folding of continental sediments. Some examples of fold mountains are Himalayas (Asia), Andes, Rocky mountains etc. Mostly they are formed at convergent boundary of continental-continental, continental-oceanic.

Reason behind located along margin of continents

1. Convergent boundary and Plate tectonics
   - Fold mountains are formed at convergent plate boundaries rather than in the interior
   - When two plates move towards each other there is folding which form fold mountains

2. Compression
   - Collision of plates causes horizontal compression, folding of sediments and uplift of crust

3. Subduction zones
   - The denser plate i.e. oceanic subduct under lighter plate that is continental
   - This causes folding, faulting and mountain formation

Explains fold mountain formation and gives examples. Directly addresses the mechanism

Numerous spelling and grammatical errors

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Examples of fold mountains on Continental margin

1. Himalayan on margin of india - eurasia Plate.
   ↳ Continental-continental collision

2. Rockies on western coast America. due to oceanic and continental collision

3. Alps on margin of Eurasian and African Plates.

4. Shown in figure (1)
   Association with earthquakes and volcanos

Conciseness, eliminating redundancy, and improving language.
Prioritize direct answers to the question's components

1. Seismic Activities
   ↳ Convergent margin are zones of intense tectonic stress
   ↳ for eg: himalaya, Andes are formed due to earthquake

Logically addresses both parts of the question. The map is

2. Volcanos
   ↳ islands of Japan, mountains of indonesia, philipine, are volcanic mountains
   ↳ They lies in region of 'Ring of fire'

Good understanding of tectonic processes.

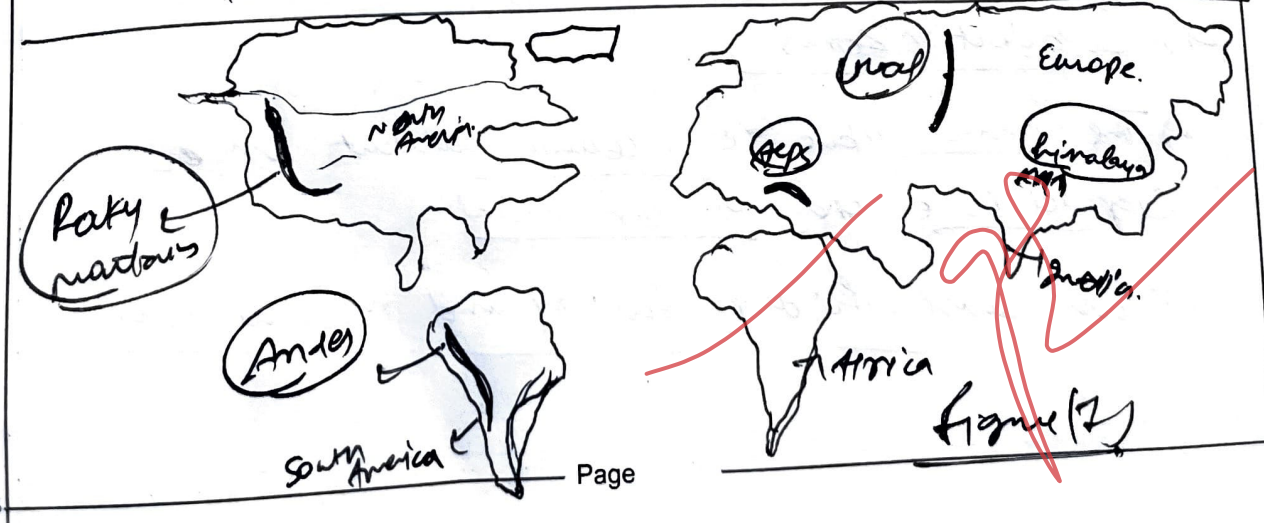

figure (1)

The global distribution of fold mountains is governed by tectonic plate boundaries. This shows that nature can create such beautiful structures. Plays important role in supporting human life on earth

Links distribution to plate boundaries. The second sentence is a bit general and doesn't fully synthesize the core ideas of the question (margins, EQ,

Q1 Major hot deserts in northern hemisphere are located between 20-30° North and on western side of continents. Why? (200 words)

Ans The major hot deserts in northern hemisphere are located between 20-30 north. because the climatic conditions, anthropogenic conditions are in favour of them. Some examples of them are Thar desert, Sahara desert (Africa) etc.

Reasons behind their formation

↳ Hot and warm currents such as Agulhas, Gulf Stream current are flow on western coast of north continents.

↳ (II) Rainfall Scanty in areas of west-north of Africa.

↳ As Sahara desert lies in high-pressure zone (20-30°N) where air descend, warm, dries, preventing formation of clouds and rainfall

↳ (III) Rain shadow effect as in Atlas Mountains to the north west of Sahara create rain-shadow zone

↳ eg: Atacama desert of South America.

States the location and mentions climatic and anthropogenic conditions. Gathara dercut" is presumably Sahara Desert. Anthropogenic conditions are less about the initial location and more about desertification/expansion

Directly addresses the question, mentions key factors, and provides stats.

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↳2. Anthropogenic activities

↳ (I) Agriculture: there is more landmass in [illegible] [illegible] [illegible] unsustainable agricultural practises and led to [illegible] in long term cause desertification

↳ (II) unsustainable Practices such as deforestation, mining, in Forest areas leads to [illegible]

eg: Thar desert in ancient times was a golden forest.

but due to excessive ~~use~~ or exploited farming it turned desert.

↳ (III) Divert way of Rivers as in central asia

Aral sea is turning into dried water body and then it will become desert and this is because of Amu darya and [illegible] darya, They fed Aral Sea [illegible] divert for irrigation

The need of hour is to think about our unsustainable activities. We cannot change nature's activities but we can change ours. People should prioritize the sustainable growth, green economy [illegible] activities to prevent further desert due to human activities.

The division into climatic and anthropogenic is fine, but the anthropogenic part is less relevant to the core question of initial location.

Major factual error regarding ocean currents. Overemphasis on anthropogenic factors for a question about natural desert location.

Focus on: Addressing the "why" of the specific location with accurate climatic factors. Distinguish between natural desert formation and anthropogenic desertification. Severe correction needed on ocean currents.

Focuses entirely on anthropogenic desertification, which was not the main thrust of the question (which was about natural location).

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Directly addresses the question, mentions key factors, and provides stats.

Correctly identifies the main reasons for island formation. Focus on: A conclusion that summarizes the formation process. Drastically improve spelling and grammar.

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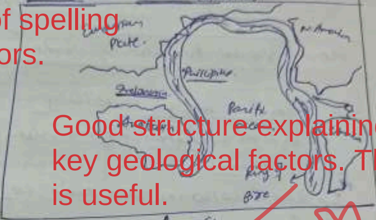
↳ 2. Pacific Ring of fire

↳ Both countries lies on 'Pacific ring of fire' as shown in figure (1).

↳ This creates volcanic and tectonic activities

Significant number of spelling and grammatical errors.



Good structure explaining the key geological factors. The map is useful.

figure (1)

↳ Sediment deposition and erosion activities

↳ Many rivers drain into Pacific ocean by passing through indonesia and Phillipine

↳ For eg: Pampanga, Agusan Rivers.

↳ They deposit Sediments and form islands

Shifts to geopolitical and environmental issues, which is not directly answering the "formation" question. It's a forward-looking statement but off-topic for the core question.

Indonesia and Phillipines plays a crucial role in politics of Pacific ocean along with geography. But there are many issues related to them such as exploitation of natural resources, Pollution which should be addressed to maintain their beauty

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Q) The Process of desertification does not have climatic boundaries. Justify with examples (150 words).

Ans) Desertification is the process by which an area becomes desert due to soil degradation and decline in vegetation. This usually occurs in arid, semi-arid and dry areas. Thar desert, Kalahari desert are some examples.

Process of desertification does not have climatic boundaries 'reasons'

1. Anthropogenic activities
   - 1. Overgrazing leads to loss of vegetation
   - 2. Unsustainable development leads to loss of water sources. which makes soil dry.
   - 3. Deforestation by human leads to desertification eg:- According to The Economic Times
     - 18 lakh lost (1.6%) of world Primary forests between 2019 - 2024
   - 4. Land Misuse cause by desertification of forest area.
     for eg: cutting of amazon forests for road Connectivity is misuse of land
   - 5. Unsustainable farming leads to loss of fertility of soil and turns it into desert

Defines desertification and mentions typical climatic zones but also gives examples of deserts, not desertified areas outside these zones (which is the question's thrust). The intro should set up the "no climatic boundaries" argument.

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Examples to Justify :

1. Bundelkhand (India)
   - Despite moderate rainfall ; Overgrazing and deforestation led to land degradation
   - Despite over-irrigation, unsustainable farming using excessive fertilizers
   - According to report of Ministry of Jal Shakti, over-exploitation in Punjab of groundwater
2. Aral Sea (central Asia)
   - For farming two way of Amu darya and Syr darya diverted.
   - which led to desertification of Aral Sea
3. Lake Faguibine in [illegible] due to climate change which itself cause of human activities

- The regions are shown on map in figure (2)
- Thar desert was once fertile region but turned desert due to human activities

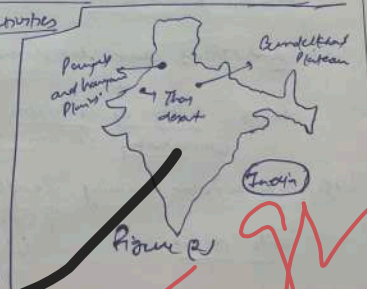

Figure (2)

Page

Logical flow from definition to reasons and strong examples.
* Content: Excellent understanding of the issue and very good, diverse examples. This is a strong answer in terms of content.

Answer is a bit long but contains very relevant points. Can be condensed.

With increasing population pressure, unsustainable practices, and climate change, the risk of desertification now transcends climatic boundaries. This is becoming threat to ecosystem and biodiversity of earth. Need of hour is to take strict steps to stop desertification.

Good summary of drivers and impact, and a call to action. Reinforces the "transcends climatic boundaries" idea

Many spelling and grammatical errors.

Focus on: Drastic improvement in spelling and grammar, and conciseness to meet word limits without losing the strong examples.