



RAS

Rajasthan Administrative Services

Rajasthan Public Service Commission

Volume - 3

Geography of Rajasthan



GEOGRAPHY OF RAJASTHAN

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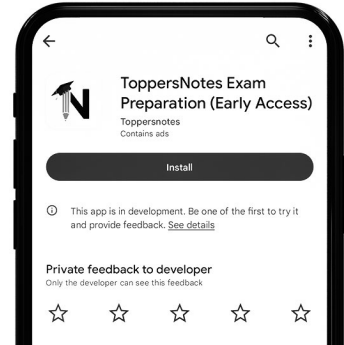
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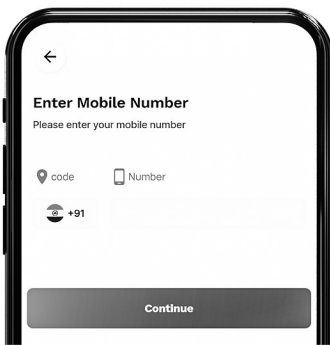
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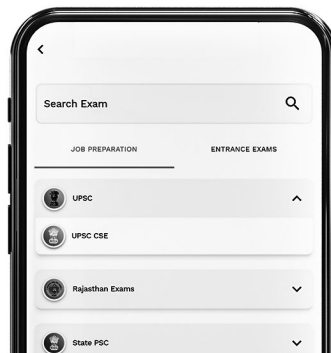
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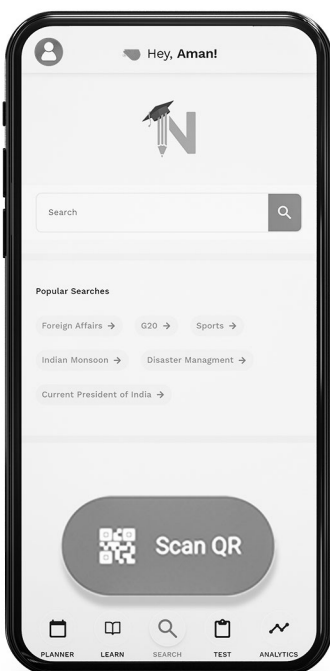
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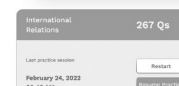
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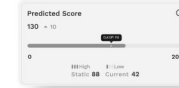
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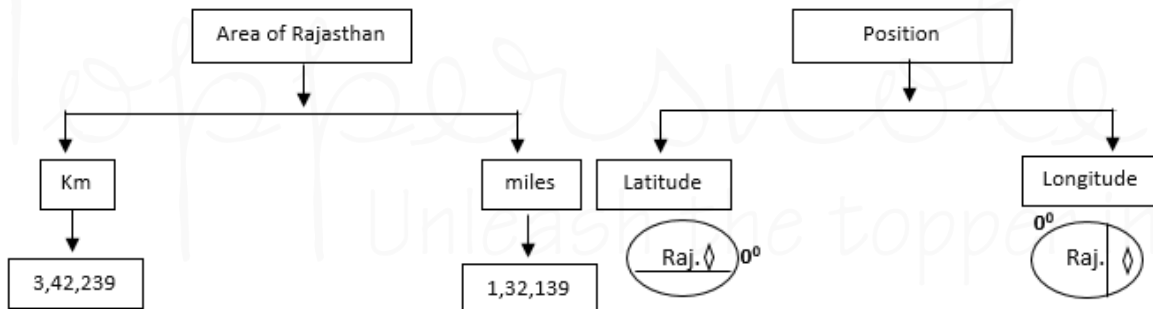
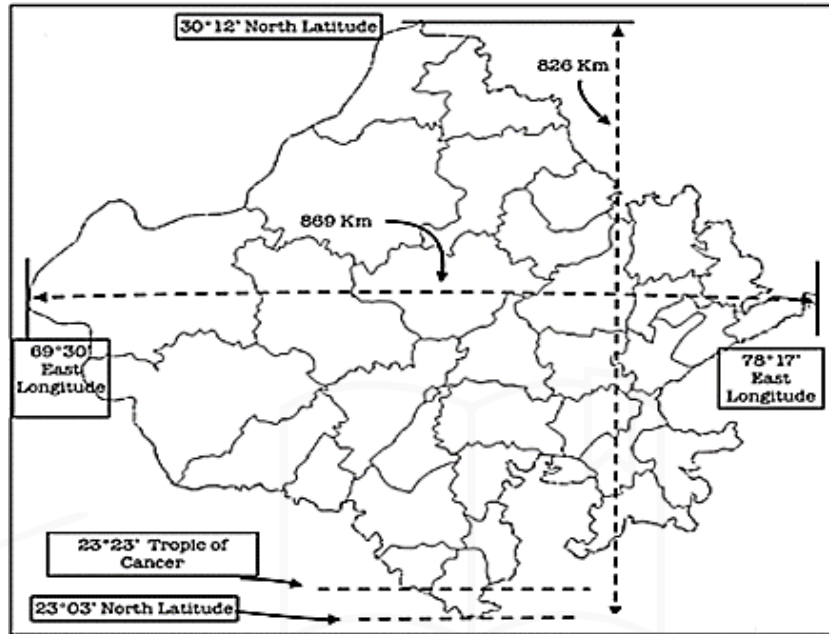


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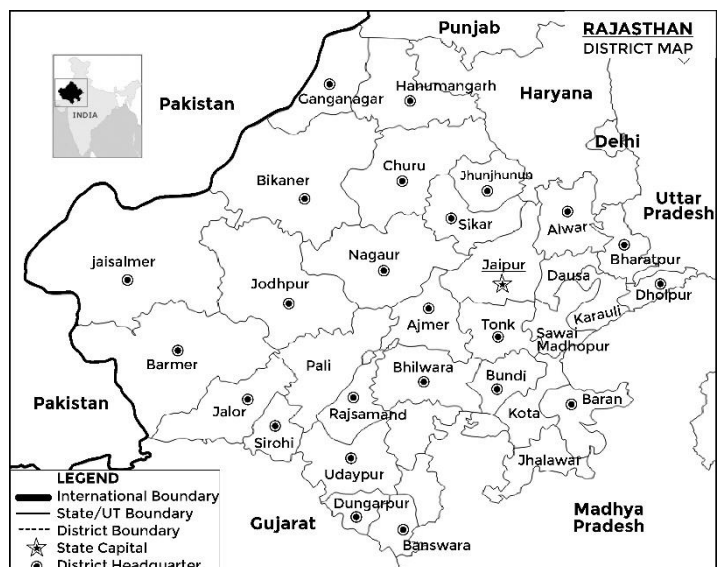
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1 CHAPTER

Location and Extent of Rajasthan



- **Location** - Located in the north-western part of India
 - **Latitudinal range** - 23°3' to 30°12' north latitude
 - **Longitude Extension** - 69°30' to 78°17' East Longitude
- Rajasthan is the largest state of India in terms of area.
- **Shape: Kite**
 - **Length** - 826 km from north to south
 - **Width** - 869 kms from east to west
- **Area** - 3.4 lakh square kilometers (10.43% of the total area of India)
- The Tropic of Cancer (23°0' North Latitude) passes near Banswara at its southern end.
- **Neighboring States:**
 - North - Punjab
 - North-East - Haryana
 - East - Uttar Pradesh
 - South-East - Madhya Pradesh
 - South-West - Gujarat



Latitudinal Extent of Rajasthan

- **Latitude** - 23°3' to 30°12' North Latitude



- **Location:** Borkund Village - Kona Village
- **District** - Banswara - Sri Ganganagar
- **Direction** - South (826 km) – North



Longitudinal Extent of Rajasthan

- **Longitude** - 69°30' to 78°17' East longitude

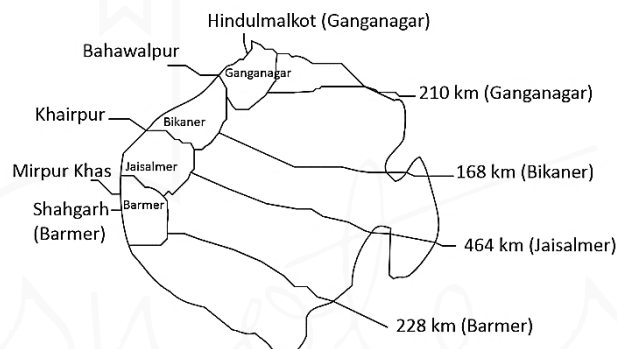


- **Location:** Katra Village - Silana Village
- **District-** Jaisalmer - Dholpur
- **Direction** - West (869 km) – East

Time difference between West (Jaisalmer) and East (Dholpur) - 35 minutes and 8 seconds.

Boundaries of Rajasthan

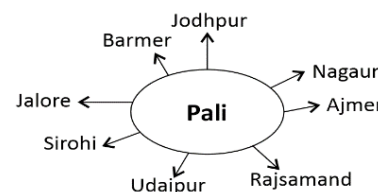
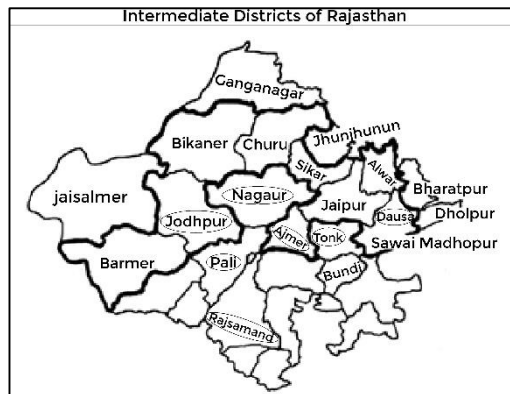
- **International Border:** 1070 km long (Radcliffe) border with Pakistan (**RAS-P-1998**)
 - **Border District** - Ganganagar, Bikaner, Jaisalmer and Barmer.
- **Interstate boundary of Rajasthan** - 4850 km.
 - **Punjab** - 89 km - **Maximum:** Sri Ganganagar / **Minimum** - Hanumangarh
 - **Haryana** - 1,262 km – **Maximum** - Hanumangarh / **Minimum** - Jaipur
 - **Uttar Pradesh** - 877 km – **Maximum** - Bharatpur / **Minimum** - Dholpur
 - **Madhya Pradesh** - 1,600 km – **Maximum** - Jhalawar / **Minimum** - Bhilwara
 - **Gujarat** - 1022 km – **Maximum** - Udaipur / **Minimum** - Barmer
- **Peripheral Districts of Rajasthan** - 25
- **There are 2 states of Pakistan located on the international border** - Punjab and Sindh.



Geographical Boundary of Rajasthan

State	Districts of Rajasthan touching the border of other states
Madhya Pradesh (1,600 km)	10 (Dholpur, Karauli, Sawai Madhopur, Kota, Baran, Jhalawar, Chittorgarh, Bhilwara, Banswara, Pratapgarh)
Punjab (89 Km.)	2 (Hanumangarh, Sri Ganganagar)
Haryana (1,262 km.)	7 (Hanumangarh, Churu, Jhunjhunu, Sikar, Jaipur, Alwar, Bharatpur)
Uttar Pradesh (877 kms.)	2 (Dholpur, Bharatpur)
Gujarat (1,022 km.)	6 (Udaipur, Barmer, Sirohi, Jalore, Dungarpur, Banswara)

- **8 districts of Rajasthan do not form border with any other state** - Jodhpur, Bundi, Tonk, Rajsamand, Ajmer, Pali, Nagaur and Dausa
- Both Chittorgarh and Ajmer districts are divided.
 - **Rajsamand** divides Ajmer into two parts.
- **Pali** - Forms boundary with maximum 8 districts.
- **Districts of Rajasthan having only inter-state borders: 21**
- There are 2 districts which have inter-state and international boundaries.
 - **Shri Ganganagar** (Pakistan + Punjab),
 - **Barmer** (Pakistan + Gujarat)
- There are **4** districts of Rajasthan, that form border with 2 states.
 - **Hanumangarh**: Punjab / Haryana
 - **Bharatpur**- Haryana / Uttar Pradesh
 - **Dholpur**:- Uttar Pradesh / Madhya Pradesh
 - **Banswara**:- Madhya Pradesh / Gujarat
- Jhalawar forms the longest inter-state border, which it forms with Madhya Pradesh.
- Barmer district forms the shortest inter-state border, which it forms with Gujarat.



Cultural Division of Rajasthan



Division	District Covered
Mewar	Udaipur, Rajsamand, Bhilwara, Chittorgarh
Marwar	Jodhpur, Nagaur, Pali, Bikaner, Jaisalmer, Barmer
Dhundhar	Part of Jaipur, Dausa, Tonk and Ajmer
Maal/ Hadauti	Kota, Bundi, Baran, Jhalawar
Shekhawati	Churu, Sikar, Jhunjhunu
Mewat	Alwar, Bharatpur

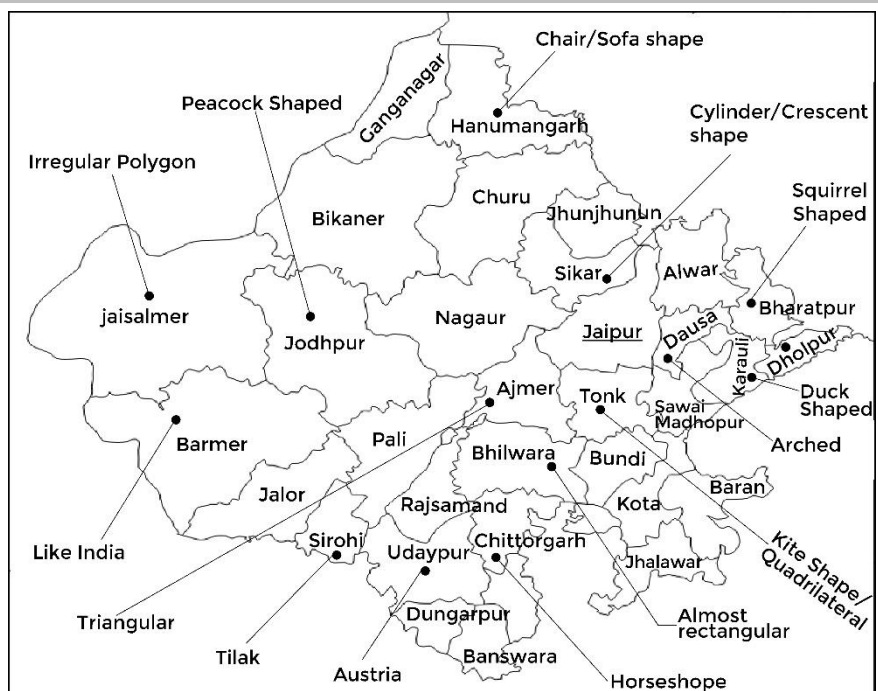
Vagad	Dungarpur, Banswara
Bangar	Pali, Sikar, Nagaur and Jhunjhunu
Rathi	Bikaner, Jaisalmer, Barmer
Bhorat	Plateau area between Gogunda hills of Udaipur and Kumbhalgarh hills of Rajsamand
Malwa	Pratapgarh and Jhalawar
Maru	Jodhpur Division
Matasya	Alwar, Bharatpur, Karauli and Dholpur
Beed	Pasture land located in Jhunjhunu
Yaudheya	Hanumangarh and Ganganagar

Districts of Rajasthan by Area







Largest Districts	Smallest Districts
1. Jaisalmer (38401 sq. km) <ul style="list-style-type: none"> • 11.22% of the total area of Rajasthan • The only district of Rajasthan whose area is more than 10%. 	1. Dholpur (3034 sq. km) <ul style="list-style-type: none"> • 0.89% of the total area of Rajasthan • The only district of Rajasthan whose area is less than 1%.
2. Bikaner (30239 Sq. Km.)	2. Dausa (3432 Sq. Km.)
3. Barmer	3. Dungarpur
4. Jodhpur	4. Pratapgarh

Shapes of Districts of Rajasthan

- **Ajmer** - Triangular
- **Chittorgarh** - Horseshoe
- **Bhilwara** - Almost rectangular
- **Sikar** - Cylinder / crescent shape
- **Jodhpur** - Peacock shaped
- **Jaisalmer** – Irregular Polygon
- **Barmer** - Like India
- **Dausa** - Arched
- **Tonk** - Kite shape / quadrilateral
- **Karauli** – Duck shaped



Brief Description of Rajasthan

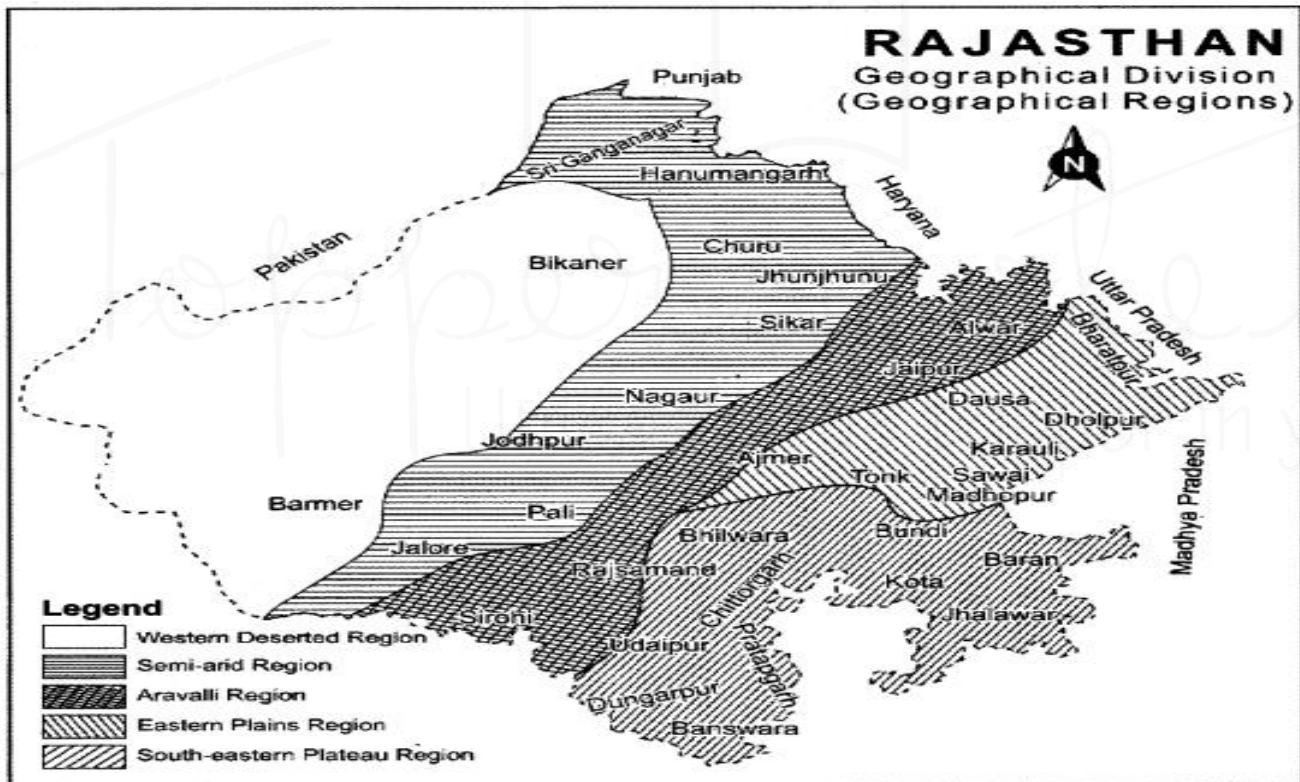
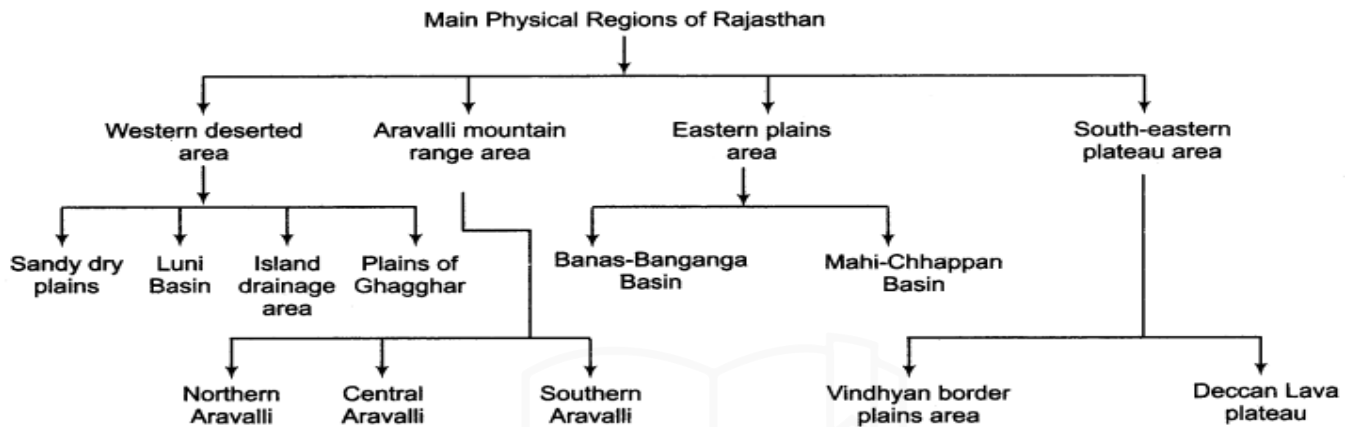
State Animal – chinkara		State Bird – Godawan	
State Domestic animal - camel		State Tree - khejdi	
State flower – Rohida flower		State Folk dance - Ghoomar	

2

CHAPTER

Major Physical Landforms of Rajasthan

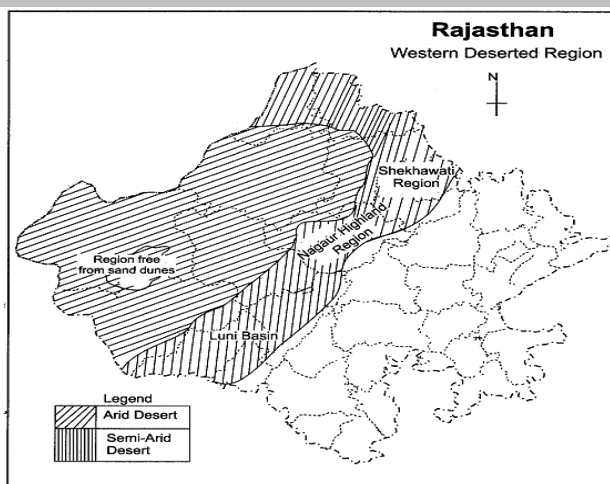
The landforms of Rajasthan are divided into the following regions-



Physical Division	Population	Area
Western sandy plain	39%	61.11%
Aravalli region	11%	9.00%
Eastern plains	40%	23.00%
South - Eastern	10%	6.89%
Total	100%	100%

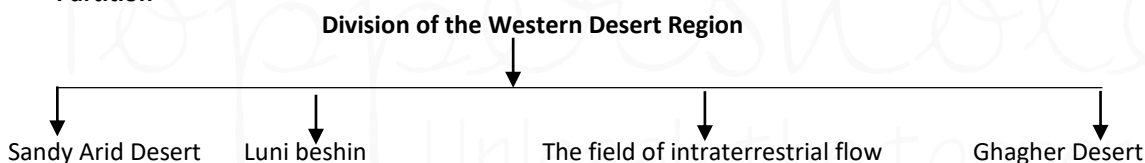
Western Deserted Region

- **Location** - In the west of Rajasthan, it is extended to the north-west and west of the Aravalli ranges.
- **Boundaries** -
 - **Northern Border** - Punjab
 - **South-West Border** - Gujarat
 - **Western Border** - International border between India and Pakistan
 - **Eastern Boundary** - The north of Udaipur district, marked by the western sub-mountainous region of the Aravalli range.
- Ahead of the eastern boundary, this area is marked by the 50 cm isohyet line.
- It is a vast plain of sandy soil and is infertile due to lack of water.



Districts	Ganganagar, Hanumangarh, Jhunjhunu, Sikar, Churu, Bikaner, Nagaur, Jodhpur, Jaisalmer, Barmer, Jalore, Sirohi
Area	1,96,747 Sq. Km.
Length	640 Km
Width	300 Km
River	<ul style="list-style-type: none"> ● Luni- It originates from south west of Aravalli in Ajmer and it flows south-west and falls in Rann of Kutch (Arabian Sea) [only during rainy season]. ● Tributaries- Sukdi and Jawai.

- Its eastern part is known as Thar Desert.
- It is completely arid and covered with desert vegetation.
- The Western Desert Plains and Pakistan are located across the International Border for about 1070 kms.
- **Partition** -



Sandy Arid Plains

- **Area** - 61% of the total area of the western desert region
- **Population** - 40%
- **Minimum rainfall** - 50 cm
- A vast expanse of sand and continuous rocks is found in this area.
- Limestone is mainly found in Jaisalmer, Barmer, Bikaner, Churu, Hanumangarh and Sri Ganganagar.
- Erosion topography is evident in Barmer, Jaisalmer, Bikaner and other areas where rocks are exposed on the surface.
- The sandy arid plains are further sub-divided into two sub-zones.

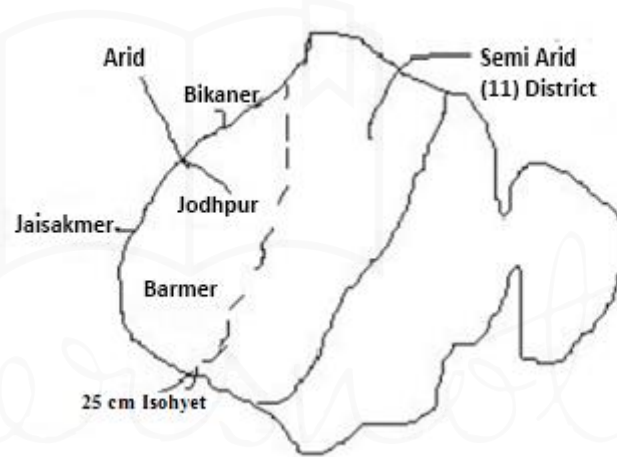
Marusthali	<ul style="list-style-type: none"> ● District- Bikaner, Barmer, Jaisalmer, Jodhpur, Nagaur, Churu ● Area - 120500 sq. km (Thar Desert) ● Height of sand dunes - 6 meters to 60 meters ● Length of sand dunes - 3 km to 5 km. ● Towards the west, this sandy arid desert is known as the Thar Desert. ● Shifting sand dunes are locally known as Dharians.
Dune-free tract	<ul style="list-style-type: none"> ● Districts- Bikaner, Jaisalmer, Phalodi and Pokhran ● Area - 65 sq. km. ● Limestone and sandstone rocks here belong to the Jurassic and Eocene Periodic formations. ● It is rocky and devoid of sand dunes. ● Many small hills are found in the 64 km radius of Jaisalmer city. ● Dry beds and banks can be used for groundwater. ● Grid conglomerates, gneiss, schist and granite rocks are also exposed.

On the basis of size and wind direction there are following types of sand dunes -

Transverse Sand dunes	<ul style="list-style-type: none"> ● These are located from South West to North East. (mostly-Jodhpur) ● Parallel to the prevailing winds and are mostly sword-shaped. ● The axis is parallel to the wind direction.
Crescent Shaped Dunes or Barchans	<ul style="list-style-type: none"> ● Width of dunes -100 m to 200 m ● Height of dunes – 10 m to 20 m ● The dunes has a convex side with a gentle slope and a concave side with a steep slope. ● These dunes are mobile. (Found maximum in Shekhawati area) ● They are found in isolation or sometimes together in rows.
Longitudinal Sand Dunes	<ul style="list-style-type: none"> ● The dunes are formed in the same direction of the wind. (Maximum- Jaisalmer) ● These are generally found in the eastern and northern parts of the desert. ● These are U - shaped dunes.
Star Shaped Sand Dunes	<ul style="list-style-type: none"> ● Mohangarh, Suratgarh and Pokaran (maximum in number)

Semi-Arid Basin or Rajasthan Bangar

- 25 cm isohyet line divides the sandy arid plains and the semi-arid transitional plains.
- The western most part which is the 'Great Desert' having large no. of sand dunes, extends from the Great Rann of Kutchch bordering Pakistan to the Punjab.
- The scale and extent of sand dunes greatly influence the economic activities in the region.
- 63 percent of the sand dune area of Rajasthan is concentrated in the desert districts of Barmer, Jaisalmer and Bikaner.
- **District** - Jaipur, Jodhpur, Nagaur, Pali, Jalore, Barmer
- **Area** - 7500 sq km
- **Rain** - 20 cm
- It is situated in the eastern part and its south-eastern part is drained by **Luni** river.
- The gullies have given rise to a unique scenario. Its eastern part is covered by surface sand deposits.
- Towards the north is the Shekhawati tract, which is a semi-arid transitional plain with saline lakes like Sambhar, Didwana, etc. with inland water flow.
- The Ghaggar plain is situated in the extreme north.



Ghaggar Plain	<ul style="list-style-type: none"> ● Made from the alluvial soils of Ghaggar, Vedic Saraswati, Sutlej and Chautang rivers ● Extension- Hanumangarh, Ganganagar. ● The drainage of Ghaggar River is called "Nali". ● Presently known as the Dead River. ● In the rainy season, submerges in Hanumangarh during floods. ● Ends in the desert near Bhatner.
Shekhawati Region (RAS-M -2018)	<ul style="list-style-type: none"> ● The area north of the Luni basin up to the Rajasthan border is covered within the semi-arid transitional plain. ● District - Churu, Sikar, Jhunjhunu and Nagori (inflow area) ● The eastern boundary is marked by a 50 cm isohyet line. ● Johad - Raw water wells, Sir - ponds formed during monsoon ● Beed- Shekhawati pasture grounds ● Livestock, milk production and dairy are the main occupations of this region. ● The Aravalli hills are present in this region from south to north, which are roughly cut into two halves.

	<ul style="list-style-type: none"> • The topography of Shekhawati areas is characterized by undulating sandy terrain and longitudinal sand dunes. • Only one seasonal river Kantali flows here and when it enters Churu district, it gets lost in the sandy region. • Thus, this area is an area of inland drainage and not of rivers. • Here the sand dunes are of transverse type, while in other areas they are of longitudinal type. • A layer of Lime layer is found in this area having an altitude of 450 m above sea level.
Nagori Highlands	<ul style="list-style-type: none"> • The whole area is barren and sandy. There are no mountains except in Parbatsar and some hills. • The area around Nagaur is devoid of sand dunes. • Its mean elevation above sea level is 300 m to 500 m. • Rainfall - 25 cm in the west to 50 cm in the east • This area is characterized by sandy hills and low troughs. • Due to the high temperature, salt and soda accumulate in these pits due to evaporation of salt water. For this reason this area is called Banka Patti or Koobad Patti (Nagaur-Ajmer). • The important lakes of this region are Sambhar, Degana, Didwana.
Godwad/ Luni-Jawai Basin Region	<ul style="list-style-type: none"> • District - Barmer, Jalore, Jodhpur, Nagaur • Area - 34866.4 Sq.km • The basin is drained by the Luni River and its tributaries Bandi, Sagi, etc. • The Luni River covers the area from the source to Tiwara (Barmer) where the Sukdi River meets and delimits the southern boundary of the basin. • The Luni River originates from the Aravalli Hills near Ajmer and flows south-west. Its tributaries are Jojdi, Lildi, Sukdi, Bandi, Jawai, Khari, Sagi, Meethdi etc. • Flood occurs in Luni during the rainy season. • The topography is characterized by hills with steep slopes and wide alluvial plains. • The alluvial plain between the Luni river and the foothills of the Aravalli ranges is covered with deposits of aeoline sand. • This area is locally known as Naid (Rail) and is one of the most fertile alluvial plains.

Other Features of the Desert -

- Playa / Khadin Lake - Temporary water lakes, in which agriculture done by Paliwal Brahmins is called Khadin agriculture.
- Rann \ Taat - Saline, swampy and infertile land.
 - **Maximum** - Jaisalmer
- **Major Desert** -

Talchapar	Churu
Parihari	Churu/Shekhawati
Phalodi	Jodhpur
Baap	Jodhpur
Bhakri	Jaisalmer
Pokharan	Jaisalmer

- **Akal Wood Fossil Park** - Jaisalmer, belongs to the Jurassic period (18 million years ago), currently located in the National Desert Park.
- **Water Belt \ Lathi Series** - 60 km area between Pokaran and Mohangarh in Jaisalmer, the remains of ancient Saraswati, the refuge of Godawan
- **March of the Desert** - Extends of the desert, from south-west to north-east

Aravalli Hills Region

- **Area** - About 9.3% of the state's land area is hilly.
- But the main Aravalli ranges are extended on about 9% of the area.
- **Latitudinal Extension** - 23°20' to 28°20' north latitude
- **Longitudinal Extension** - 72°10' to 77° East Longitude

- **Area** – Udaipur, Chittorgarh, Rajsamand, Dungarpur, Bhilwara, Sikar, Jhunjhunu, Ajmer, Sirohi, Alwar and parts of Pali and Jaipur.
- **Population** - about 10% of the state.
- **13 districts** – mainly extended to 7 districts
- **Rainfall** – 50 cm to 90 cm.
- The Aravalli ranges act as a rain divider line in the state.
- **The state's highest rainfall place** - Mount Abu (about 150 cm) is located in this region
- **Climate**- Sub humid climate.
- **Soil** - Black, brown, red and gravelly soils.
- It is similar to the Appalachian Mountains of America.
- The Aravalli mountain range is the remnant of the Gondwana land.
- It has plateau in the southern part, plains in the northern part and desert in the western part.
- The Aravalli mountain range divides Rajasthan into two parts, politically out of 33 districts of Rajasthan, there are 13 districts in the west of the Aravalli mountain range and 20 in the east.
- The Aravalli is a fold-mountain range.
- Built in the Pre-Cambrian era.
- **Total length** - 692 km.
- Khed Brahma (Palanpur, Gujarat) extends through Gujarat, Rajasthan, Haryana till Raisina Hills (Rashtrapati Bhavan) in Delhi.
- The length of the Aravalli range in Rajasthan is 550 km. (80%)
- In Rajasthan, the Aravalli range extends from Sirohi to the north-east of Khetri (Jhunjhunu).
- This mountain range extends diagonally in the state from South-West to North-East.
- The width of the Aravalli starts increasing in the southwest towards Udaipur and Dungarpur.
- The northern and central parts of the Aravalli range are made up of quartzite rocks.
- Whereas in the south near Abu, the higher mountain blocks are made of granitic rocks.
- The main reason for less rainfall in Rajasthan-Aravalli mountain range being parallel to the monsoonal winds.
- The world's oldest folded mountain range is the Aravalli.
- The Aravalli mountain range came into existence in the end of Dharwad period and the beginning of Vindhya period.
- Aravalli Mountain ranges are important to prevent the expansion of Thar Desert in the North-West towards the South-East.
- **Average height of Aravalli ranges** – 930 meters.
- Aravalli is divided into four parts on the basis of study.

North-Eastern Hilly Region or Hills of Alwar

- It extends from Delhi to different hills of Alwar and Jaipur.
- District- Jaipur, Sikar, Khetri, Alwar, Sawai Madhopur.
- These are also called Alwar hills.
- Average elevation: 300m to 670m
- Highest peak of North Aravalli - Raghunathgarh (Sikar)
- Flat mountain peaks form small plateaus.
- Lake- Sambhar, Ramgarh, Silisedh
- It joins the Ganges-Yamuna plains in the north and east.

Hills

- Malkhet and Khetri hills
- Torawati Hills
- Peaks of North-Eastern Aravalli region
- Raghunathgarh (Sikar) - 1055 m
- Kho (Jaipur) - 920 m
- Bhairach (Alwar) - 792 m
- Barwara (Jaipur) - 786 m
- Babai (Jhunjhunu) - 780 meters

- Bilali (Alwar) - 775 m
- Manoharpur (Jaipur) - 747 m
- Bairath (Jaipur) - 704 m
- Sariska (Alwar) - 677 m
- Sirawas - 651 m

Mid Aravalli Hills Region

- **Districts** - Includes Ajmer, South-Western Tonk, Jaipur districts.
- The length of the middle Aravalli ranges is 100 km, width is 30 km. and the depth of the valleys is 550 m.
- **Height**- 700 meters.
- **Highest peak/height** - Moramji \Torgarh (934m), Taragarh (873)
- The middle/Aravalli extends from Sambhar Lake to the Bhorat plateau to the south of the Deogarh peak.
- Alwar hills in the north, Karauli plateau in the east, Banas plains in the south, Sambhar basin in the west.

Hills

- The lower hills of Shekhawati,
- Marwar Hills

Peaks of the Middle Aravalli Region

Goramji (Ajmer) - 934 m

Taragarh (Ajmer) - 870 m

Nag Pahar (Ajmer) -795 m

The middle Aravalli Range is further sub-divided into two geomorphic units.

Sambhar Basin/Shekhawati Low Hills	<ul style="list-style-type: none"> ● District- Churu, Sikar, Jhunjhunu, Nagaur ● Area - 400 square meters ● This area is full of sandy hills and land drainage.
Merwara Hills	<ul style="list-style-type: none"> ● District- Jodhpur, Barmer, Jaisalmer, Nagaur, Ajmer ● Area- 4400 sq. km ● Average level - 550 m.

Mewar Rocky Region and Bhorat Plateau

- Covers the south-eastern frontier of Udaipur, Pali and Dungarpur districts.
- **Area**- 17007 sq. km
- **Location**- It is located from south to south east
- **Average elevation** - 1225 m.
- The highest part of the Aravalli range is situated between the forts of Kumbhalgarh and Gogunda in the form of a plateau, locally known as '**Bhorat**'.
- Height of '**Bhorat**' - 1225 m
- Bhorat plateau is one of the highest plateau land of Aravalli.

Peaks of Southern Aravalli Region:

- Kumbhalgarh (Rajsamand) - 1224 m,
- dhonia - 1183 m,
- Rishikesh - 1017m,
- Kamal Nath (Udaipur) - 1001 m,
- Sajjangarh (Udaipur) – 938 m
- Lilagarh - 874m

Hills

- The hills of Mewar and the plateau of Bhorat,
- Girwa Hills,
- Merwara Hills.

Peaks of Abu Block Region:

- Guru Shikhar (Sirohi) – 1722 m
- Ser (Sirohi) - 1597 m
- Dilwara (Sirohi) - 1442 m
- Zarga (Udaipur) - 1431 m
- Achalgarh (Sirohi) - 1380m

Abu Block Region

- The Abu block covers almost the entire Sirohi district except the western border.
- It is completely hilly section.
- Its eastern part is in the form of an irregular plateau along Mount Abu.
- **District-** Abu, Sirohi
- **Area** - 5180 sq. km
- **Length** – 10 km
- **Width** – 8 km
- **Location-** West of Abu in Sirohi
- **Major specification-** Abu has an almost isolated mountainous region. It contains granite.
- It is separated from the main Aravalli ranges by the broad valley of the western Banas.

Hills

- Abu hills and Oria plateau.

Top peaks of Aravalli hills in Rajasthan (RAS -P-2013,2018)

Peaks	Height (m)	District
Guru Shikhar	1722	Mount Abu, Sirohi
Ser	1592	Sirohi
Delwara	1442	Sirohi
Jarga	1431	Udaipur
Achalgarh	1380	Sirohi
Kumbhalgarh	1224	Rajsamand
Raghunathgarh	1055	Sikar
Rishikesh	1017	Sirohi
Kamal Nath	1001	Udaipur
Kho	920	Jaipur
Taragarh	870	Ajmer
Bhairach	792	Alwar
Babai	780	Jhunjhunu
Bairath	704	Jaipur

Significance of Aravalli Range (RAS-P-2016)

- Containing the spread of desertification
- Water divide - separates the rivers of the Bay of Bengal and the Arabian Sea.
- Affects monsoon
- Many rivers of Rajasthan originate from the Aravalli
- The presence of metallic minerals in the Aravalli's (Dharwad rocks) makes it more important.
- Excessive vegetation (highest biodiversity)
- The development of ancient civilization (Ahar, Bagore, Gilund, Bairath) and modern urban civilization (Jaipur, Ajmer, Udaipur)
- Abode of tribals (residential sites and sites for penance of sages)

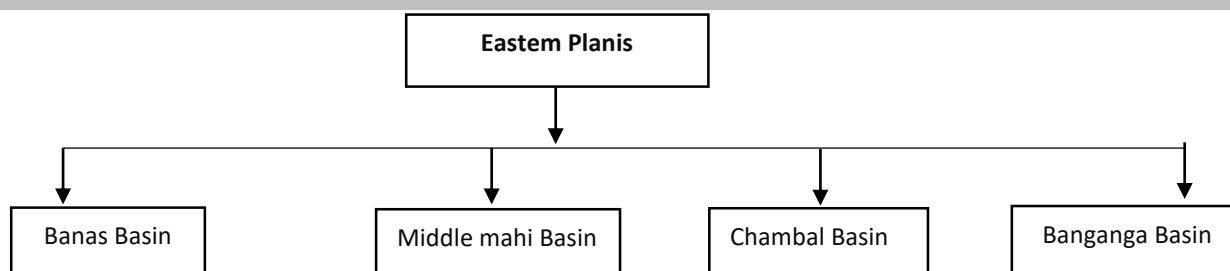
Major Pass of Aravalli \Nal

- The low and narrow path between the mountains which connects the two places is called Nal or Pass.

Udaipur	Dhebar Nal, Kewda Nal, Phulwari Nal, Hathi Nal
Rajsamand	Hathi Gudha, Kamli Ghat, Goram Ghat, Pagalya\Jilwa Naal (Rajsamand-Pali)
Pali	Barnal (Pali-Ajmer), Desuri Naal
Ajmer	Sur naal

Note - Maximum Naal or passes are located in Rajsamand district.

Eastern Plains



- The area to the northeast, east and southeast of the Aravalli ranges is known as the Eastern Plains.
- The region presents a strange mix of lowland and upper topography that is the result of its geological history as well as exogenous forces.
- The Vindhya plateau marks the south-eastern boundary of the plain.
- The western border is delimited from the eastern edge of the Aravalli's to the north of Udaipur.
- **Districts**- Tonk, Bundi, Ajmer, Jaisalmer, Sawai Madhopur, Bhilwara, Chittorgarh, Kota, Bharatpur.
- **Area**- 23.3% of the total area of Rajasthan
- **Location**- South West of Rajasthan
- The Eastern Plain is divided into three regions-

Chambal Basin

- **District**- Kota, Bundi, Baran, Tonk, Sawai Madhopur, Dholpur
- **Area**- 4500 sq. km
- **Average width** – 10 km
- Alluvial plains, springs, inflows and troughs are found in the basin.
- Chambal, Banganga, Kalisindh, Parvati rivers are found.

Banas Basin

- **District** - Udaipur, Chittorgarh, Bhilwara, Tonk, Jaipur, Alwar, Sawai Madhopur.
- **Average height** - 280 - 500 m.
- **Area**- 187400 sq. km
- It is a high peninsular plain made of alluvium brought by the Banas and its tributaries.

Mewar plain	<ul style="list-style-type: none"> • This is the dissected plain of Archean Nice. • The slope of the Mewar plain is gentle towards east and north-east, with an average elevation of 280-500 m. • The Banas and its tributaries Bedach, Menal, Bandi, Mansi, Kothari, Khari flow through this plain.
Malpura-Karauli Ground	<ul style="list-style-type: none"> • It is a flat relief, recognized by Heron as a Tertiary peneplain. • It is composed of schist and gneiss with an average elevation of 250-350 m. • The thickness of alluvial deposits is very high in large parts of Kishangarh and Malpura.

It is divided into two sub-areas mentioned below –

Mahi or Chappan Basin

- **District** - Dungarpur
- **Area** - 7056 sq. km.
- This region is situated to the east of the Mewar hills and to the south of the Banas plains.
- The western part of the Mahi Basin is mountainous but the central and eastern parts are fertile plains with extensive cultivation. These grounds are also called Chappan Plains.
- The average altitude of the region is between 200-400 meters.
- The hilly areas of Dungarpur and Banswara are known locally as Vagad.

Banganga Basin

- Northern Basin of the Eastern Plains.
- **Districts** - Jaipur, Dausa, Bharatpur and Alwar.
- The eastern plains of the Banganga basin are considered to be the most fertile areas.

South-East Rajasthan Plateau (Hadoti Plateau)

- The eastern part of the banks of the Chambal river is covered by the Hadoti plateau.
- This region includes the eastern and south eastern parts of the state and is known as Hadoti.
- This area is locally called as plateau and Uparmal.
- The Great Boundary Fault of the Aravalli forms its north-west boundary which extends eastwards across the border of Rajasthan.
- The Chambal river drains a large part of this region.
- **Districts**- Bhilwara, Bundi, Kota, Baran and Jhalawar districts.
- It covers about 9.6% area of Rajasthan.
- This plateau is further sub-divided into two sub-regions.

Deccan Highlands	<ul style="list-style-type: none"> • The Deccan highlands is also known as 'Patthar' or 'Uparmal plateau'. • It is a broad rocky outcrop including the Kota-Bundi plateau section. • District- Bundi, Kota • The western parts of the Vindhya plateau are situated in the form of three concentric slopes formed by three main sandstone cliffs with slate-stones in between. • This landform of the southeast Rajasthan is also known as Uparmal (high or rocky plateau). • It is a large and rocky upper part which also includes the plateau land of Kota-Bundi. • This region is drained by the Chambal and its tributaries Kali Sindh, Parvan and Parvati. • The soil of this region is mostly black due to the deposits of Deccan lava traps.
Vindhyan Range	<ul style="list-style-type: none"> • The average height of the verdant land is between 350 m to 580 m, formed by huge sandstones separated by shale. • Towards the south-southeast, this verge lies between Banas and Chambal and extends eastwards over Bundelkhand. • The meeting of the Aravalli and Vindhya ranges is called the great boundary fault, which extends along the Bundi and Sawai Madhopur hills in Rajasthan (RAS-P-2013) • District- Karauli, Sawai Madhopur, Bundi, Kota • The region presents an undulating topography composed of boulders, blocks and depressions. • It is largely made of sandstone. • The average elevation of the regions is between 350-550 m.

Major Plateau of Rajasthan

Oria Plateau	Sirohi, altitude -1360 m, situated in the Aravalli ranges, the highest plateau of Rajasthan.
Abu Hills	A plateau situated in Sirohi, altitude-1200 m, where the highest peaks of Rajasthan, Guru Shikhar, Ser, Delwara, Achalgarh are located.
Bhorat Plateau	Situated between the Gogunda hills of Udaipur and the Kumbhalgarh hills of Rajsamand. It is part of the physical region of Aravalli, whose height is 1225 m.
Lasadia Plateau	Plateau situated to the east of Jaisamand Lake in Udaipur.

Comparative Study of Physical Division of Rajasthan

Physical Region	Deserted Region	Aravalli Region	Eastern Plains	South-Eastern Plateau Region (Hadoti Plateau)
Area	Latitudinal extension 25°N to 30°N Longitudinal extension 61.11% of the total area from 69°30'E to 70°45'E	Spread over 9% of the area from South-West to North-East of the State	Eastern Plains, formed by rivers, 23% of the total area	Northern part of Malwa plateau, divided into five surface regions (half-moon, river formed, high point of Shahabad, Jhalawar plateau, highlands of Dag-Gangadhar) 6.89%
Population	40%	10%	39% (highest population density)	11%
Climate	Dry semi-arid climate	Humid climate, highest rainfall - Mount Abu	warm temperate, Even Climate	Very humid climate

Soil	Sandy soils	Mountain or forest soil	Alluvial or loamy soil	Black or Regur soils
Vegetation	Dry desert, thorny vegetation Acacia, Khejdi Cactus etc.	Tropical vegetation like Dhokra, Banyan, Khair, Mango, Jamun, Rohida etc.	Deciduous forests like Dhak, Khair, Mahua, Dhokra, Tendu etc.	Tropical deciduous forests Dhokra, Khair, Grasslands etc.
Other Specification	Sand dunes, dust storms, fossil park, national desert park, oil and gas reserves	70% of mineral production, high biodiversity, highest peak Guru Shikhar	Most fertile, rugged (Chambal drainage area)	Development of cottage industries, Kota, Bundi are famous

Exercise

1. **15 Words** - (1) Akal Wood Fossil Park (2) Lathi Series (3) Desert March (4) Sand Dunes (5) Barchans (6) Dharian (7) Hammada (8) Khadin (9) Rann (10) Aravalli Range (11) Gurushikhar (12) Ori plateau (13) Borhat plateau (14) Ghaggar plain (15) Godwad region (16) Chappan basin (17) Uparmal
2. **50 Words**
 1. Describe the physical features of Shekhawati region? (RAS -M-2018)
 2. Discuss the physical features of Hadoti plateau of Rajasthan. (RAS -M-2021)
 3. Explain the importance of Aravalli ?
 4. What are the characteristics of the Nagori Highland ?
 5. Describe the characteristics of the western desert of Rajasthan ?
 6. Describe the Aravalli mountain range?
 7. Mention the characteristics of the eastern plains of Rajasthan ?
 8. Explain the importance of Thar desert ?
3. **100 Words**
 1. Discuss the physical division of Rajasthan ?
 2. What are the causes of desertification and mention the efforts made by the government to stop it ?