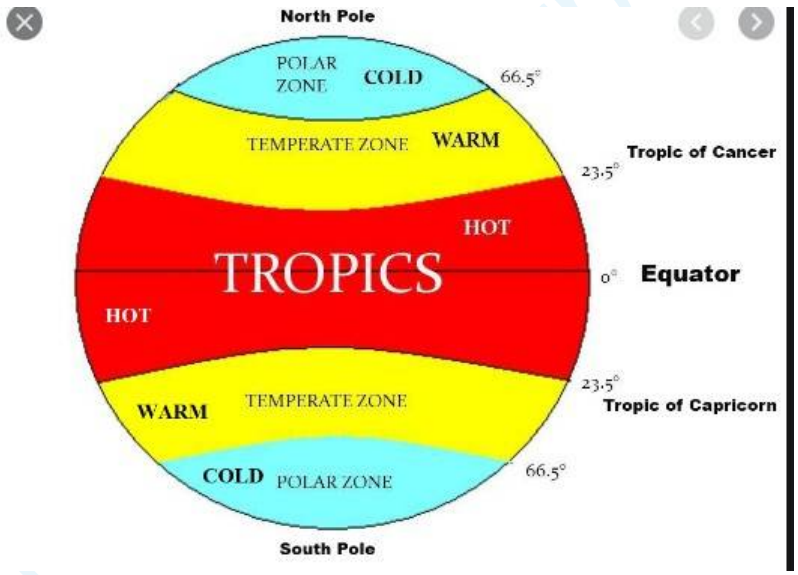
SEASONS AND TIME_01

1. Which are the important seasons on earth?
Spring, Summer, Autumn and Winter
2.Different seasons are get repeated in a cyclic manner.Why?
Because of the apparent movement of the sun between Tropic of Cancer (23½°N) and Tropic of Capricorn (23½°S)
3.Seasonal changes are not very obvious in the tropical regions .Why?
Because of the incidence of large amount of Sun's rays throughout the year.

4.Seasonal changes are obvious in which zones?
In the mid latitudinal or temperate zones.
5.Explain equinoxes.
The apparent position of the Sun during the Earth's revolution will be over the Equator on March 21 and September 23.
Hence the length of day and night will be equal during these days on both the hemispheres .
These days are called equinoxes.
6. Different zones on Earth.



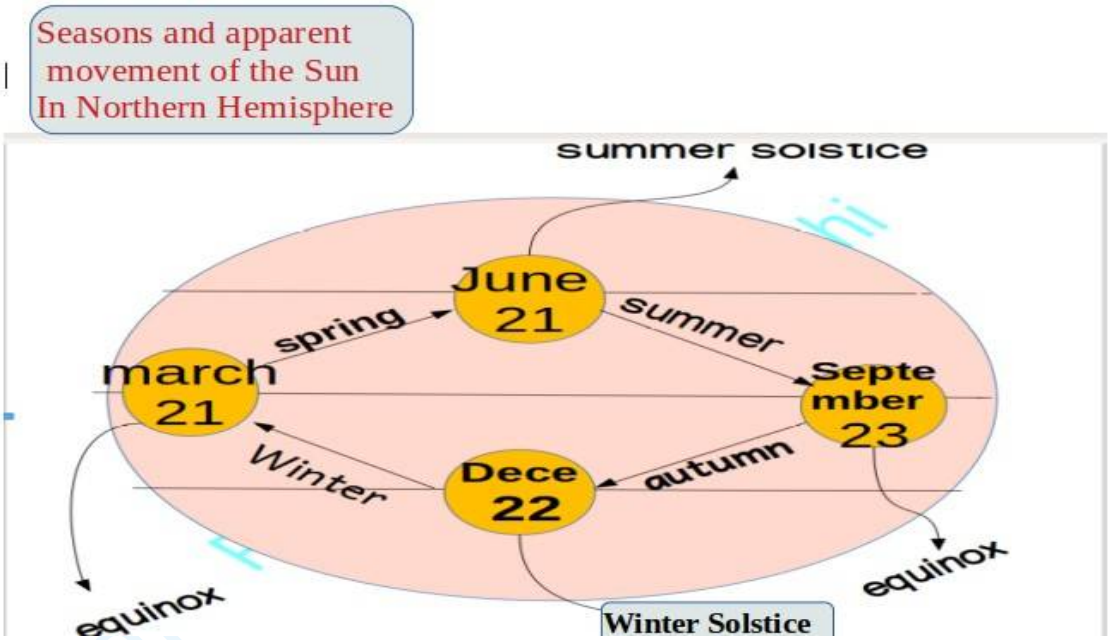
7.Compare the Summer Solstice and Winter Solstice in the Northern Hemisphere.

Summer Solstice	Winter Solstice
The Sun vertically over the Tropic of Cancer (23½°N)	The Sun vertically over the Tropic of Capricorn (23½°S)
On June21	On December22
Experiences the longest day and shortest night.	experiences the longest night and shortest day.

8.Compare the spring season and autumn season .

spring season	autumn season
between March21 and June21	Between September 23 and December22
the season of transition from winter to summer	the season of transition from summer to winter
the atmospheric temperature increases considerably.	the atmospheric temperature decreases considerably.
There is lengthening of day and shortening of night	There is shortening of day and lengthening of night
Sprouting of plants , blooming of mango trees and bearing buds on jackfruit trees	Trees shed their leaves.

9.



Months	The apparent movement of the sun	Seasons	
		Northern hemisphere	Southern hemisphere
From March 21 to June 21	From the Equator to Tropic of Cancer	Spring	Autumn
From June 21 to September 23	From Tropic of Cancer to the Equator	Summer	Winter
From September 23 to December 22	From the Equator to Tropic of Capricon	Autumn	Spring
From December 22 to March 21	From Tropic of Capricon to the Equator	Winter	Summer

10.What is Utharayanam?

The northward apparent movement of the Sun from Tropic of Capricorn to Tropic of Cancer is termed as 'Utharayanam'.

The duration of day in the northern hemisphere gradually increases during this period.

11.What is'Dakshinayanam'?

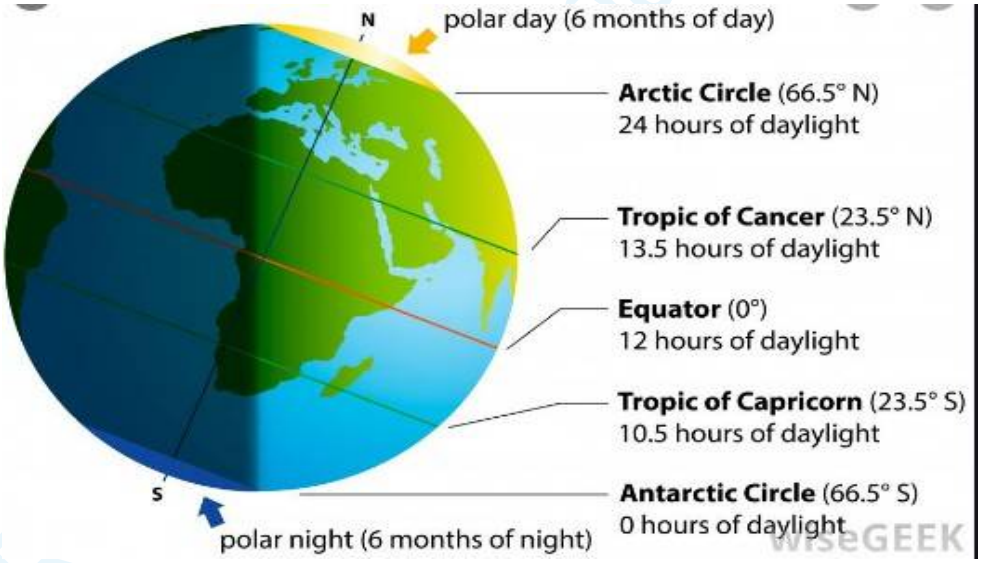
The southward apparent movement of the Sun from Tropic of Cancer to Tropic of Capricorn is termed as 'Dakshinayanam'.

The duration of day in the southern hemisphere gradually increases during this period.

12.What is the duration of day and night in the south polar regions, when the Sun is respectively over the Northern Hemisphere and Southern Hemisphere?

When the Sun isover the Northern Hemisphere, the south polar regions experience continuous night for six months.

When the Sun is in the Southern Hemisphere, the south polar regions experience continuous daylight for six months.



13.What are the peculiarities of winter season?

***Very low temperature**

***Duration of night is more .**

***Between December22 and March21**

14.Seasons are not distinctly felt in Kerala. Why?

Kerala situates in the tropical region.

Seasonal changes are not usually very obvious in the tropical regions because of the incidence of large amount of Sun's rays throughout the year.

15.The frigid zones do not experience all the seasons. Why?

***because of the incidence of very low amount of Sun's rays throughout the year.**

16.The people of which Indian State can see the Sun rise first?

***Arunachal Pradesh**

17.Local time

***The time estimated at each place based on the position of the sun is Local time.**

18.How is time calculated?

The angular distance of the Earth is=360°

The time required to complete the 360°rotation=24 hrs

=24 × 60minutes

=1440minutes

Therefore the time required for the Earth to complete the rotation of 1°longitude =1440÷360

=4minutes

So in 4 minutes the Earth completes 1° rotation.

Therefore in 60 minutes the Earth completes 15°rotation.

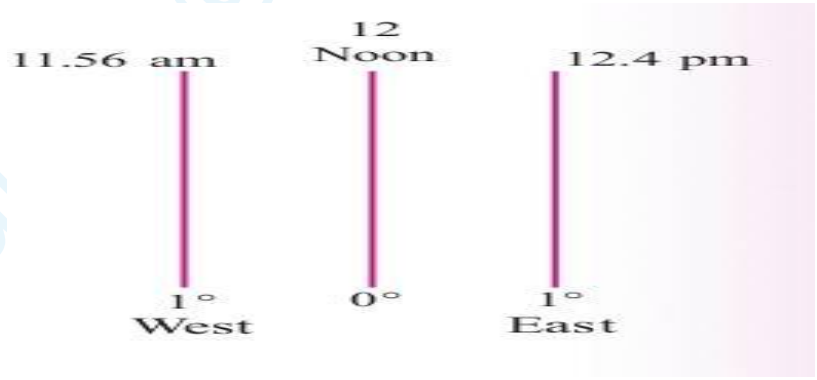
That is,with 1hour,the Earth rotates 15°.

So for every 15°changes ,the time change is 1 hour.

19.As the Earth rotates from West to East time advances towards the east and recedes towards the west.

When 1° change towards the East the time increases by 4 minutes.

When 1° change towards the west the time decreases by 4 minutes.



20.Greenwich time (GMT)

***The zero degree longitude Greenwich Line**

***Time is calculated worldwide based on this longitude.**

***Hence this line is also known as the prime meridian.**

***The local time at the prime meridian is known as the Greenwich Mean Time (GMT).**

21.Time zones

***Based on the Greenwich Merdian,**
the world is divided into 24 zones,
each with a time difference of one hour.
These are known as time zones.

22.Standard time

***Each country considers the longitude that passes through its middle as the standard meridian.**
***The local time at the standard meridian is the standard time of that country.**

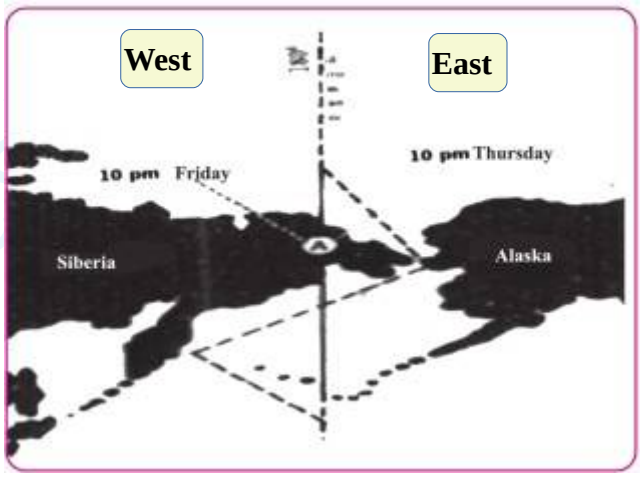
22.Indian Standard Time (IST)

***The 82½°E longitude is the standard meridian of India.**
***The local time along this longitude is the Indian Standard time.**

22.International Date Line

***180° longitude**
***Used to determine day**
***Not a straight line**
***passes through sea Bering strait in Pacific Ocean**

23. The travellers who cross International Date Line from the east calculate the time by advancing it by one day and those who cross the line from the west deduct one day.
While crossing from the east,time will be a day ahead.
While crossing from the west,time will be a day behind.



24. International Date Line is not a straight line.Why?

***If the International Date Line passes through a country, the places situated East and West of this line will be having two different days.**
It will create some practical difficulties while calculating day and time.

To avoid this, certain necessary adjustments have been effected in this line with the result that it doesn't pass through the corresponding land areas.So it is not a straight line.

25.What will be the time in Japan (135° East) when it is 11 pm on Monday in India?

• The longitudinal difference between India and Japan = 135° - 82°30
= 52°30

• Time difference for 1° longitude is 4 minutes.

• Time difference for 52°30 longitude = 52½ ×4
= 210 minutes
= 3 hours 30 minutes

• As Japan is situated at the east of India, the time in Japan would be 3 hours and 30 minutes ahead of that time in India.

• When it is 11 pm on Monday in India, the time in Japan = 11 pm Monday + 3 hours 30 minutes = Tuesday 2.30 am

In search of the source of wind _02

1.The atmospheric pressure decreases while the altitude increases.Why?
(at the rate of 1 millibar (mb) per an altitude of 10 meters.)

It is due to the rarification of air with altitude. That is ,the qantity of air decreases while going to the higher altitudes.

2.Why do mountaineers carry oxygen cylinders?

Due to the rarification of air with altitude.

3.Compared to the colder regions, the tropical regions experience low atmospheric pressure. Why?

***The air expands when it gets heated.**
***The expanded air is less dense and hence it ascends.**
***This leads to the lowering of atmospheric pressure.**
***The temperature in the tropical regions is high compared to the colder regions and low atmospheric pressure.**

4.Humidity and atmospheric pressure are inversely proportional.Explain.

***Humidity refers to the quantity of water present in the atmosphere.**
*** Water vapour is lighter than air and hence it ascends.**
*** If the quantity of water vapour is more in a unit volume of air, then naturally the atmospheric pressure will be less.**
So Humidity and atmospheric pressure are inversely proportional.

5.Explain Global pressure belts.

The atmospheric pressure is more or less the same between certain latitudes.
Based on this, the earth's surface is divided into different pressure belts.
They are 1.Equatorial low pressure belt
2.Sub tropical high pressure belts
3.Subpolar low pressure belt
4.Polar high pressure belt

1.Equatorial low pressure belt

***At 0° latitude**
***This zone is situated between 5° North and South latitudes.**
***In this zone , the sun's rays fall vertically throughout the year.**
*** Hence the temperature will be high all through the year.**
***The air expands due to sun's heat and rises up on a massive scale.**
***This is the reason for the low pressure experienced in this zone.**
***As the air in this zone ascends on a large scale, winds are very feable here.**
***This pressure belt is also known as 'doldrum', meaning 'the zone with no winds'.**
***The region was a nightmare for the ancient mariners.**

2.Sub tropical high pressure belts

***At 30° north and south latitudes**

***The hot air ascending from the equatorial low pressure belt cools**

gradually and subsides at the sub tropical zone due to the rotation of the Earth. That is the reason for the occurrence of high pressure all along this zone.

3.Subpolar low pressure belt

***At 60° north and south latitudes**

***As this zone is close to the Pole, the air is colder here.**

*** Though the cold air remains close to the Earth, the air is thrown away due to the rotation of the earth.**

***As a result, low pressure is experienced all along the sub polar region.**

4. Polar high pressure belt

At 90°north and south latitudes

This zone experiences severe cold throughout the year.

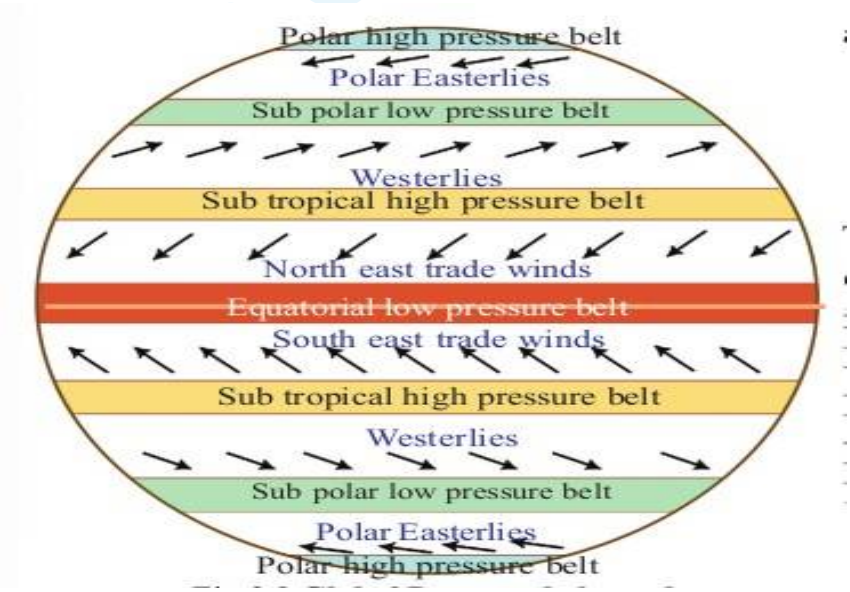
As a result, the air remains very cold. That leads to high pressure in this zone.

6.planetary winds

The winds developed between the global pressure belts can be generally called as planetary winds.

The different planetary winds are

1) Trade winds
2)Westerlies
3) Polar easterlies



1.Trade winds

***From the sub tropical high pressure belts in both the hemispheres the winds blow continuously towards the equatorial low pressure belt.**
***These are known as trade winds.**

***As these winds blow from the northeast in the Northern Hemisphere, they are known as northeast trade winds.**

***The equatorial low pressure zone where the trade winds from both the hemispheres converge is known as the Inter Tropical Convergence Zone (ITCZ).**

2.Westerlies

***Winds blow continuously from the sub tropical high pressure zones to Sub polar low pressure zones.**
***As the direction of these winds is moslty from the west, they are known as the westerlies.**
***The westerlies are stronger in the Southern Hemisphere than in the Northern Hemisphere.**
*** This is due to the vast expanse of oceans in the Southern Hemisphere.**
***westerlies helped Gama to reach the South Africa.**
***The ancient mariners had given different names to the rough westerlies in the Southern Hemisphere, such as 'Roaring Forties' (along 40° latitudes), 'Furious Fifties' (along 50° latitudes) and 'Shrieking Sixties' (60° latitudes).**

3.Polar Easterlies

***The polar winds are the cold winds that blow from polar high pressure areas towards the sub polar low pressure belts.**
*** These winds blow from the East in both the hemispheres due to the Coriolis Force.**
***Hence these are known as polar easterlies.**

Human Resource Development in India_03

1.What are the qualitative factors that improve the labour potential?

- **Education**
- **Healthcare**
- **Training**
- **Social capital**

Social capital is important because it represents the productive benefits of sociability. ... This is because social capital is the shared values, norms, trust, and belonging that make social exchange possible. Our society, economy, institutions, and political system could not exist without social capital.

2.What are the advantages in developing human resource?

1.Productivity of the workers increases
2.Economic inequality is reduced
3.Social welfare is ensured
4.Natural resource is utilized effectively
5.Entrepreneurship improves
6.Makes possible the use of advanced technology and development

3.How education helps in the development of a country?

4. *Literacy rate refers to the percentage of population that can read and write with comprehension.

5. RTE Act2009

Our country has made education a fundamental right and has passed the Right to Education Act (RTE Act) in 2009.

The constitution ensures the goal of "elementary education for all" through RTE.

6.What are the problems still exist in the education sector of India which need to be solved?

- **drop out from schools without completing primary education.**
- **There is a lack of availability of basic facilities.**
- **Quality of education has to be improved.**

7. What are the projects implemented in India to develop education and skills?

Projects	Goals
Integrated Child Development Scheme (ICDS)	• To ensure integrated development of children upto 6 years • To provide healthcare for pregnant and lactating women •
Samagra Shiksha Abhiyan (SSA)	• To ensure universal education to all up to higher secondary level • To ensure quality and equity • To promote the vocational education strenthen
Samagra Shiksha was formed by integrating Sarva Shiksha Abihyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA)	• To the teacher training institutes like SCERT/DIET • •
Rashtriya Uchthal Shiksha Abhiyan (RUSA)	• To increase the access to higher education • To improve the quality of higher education •
National Skill Development and Monetary Reward Scheme	• To improve the working skills of the youth • To ensure the availability of people with employable skills •

8.How healthy persons can participate in the progress of a country?

- **Production increases with the increase in efficiency and the number of working days.**
- **Natural resources can be utilised properly.**
- **Medical expense can be reduced, thereby reducing the government's expenditure.**
- **Economic development is possible through increase in production.**

9.List the facilities to be ensured for healthcare

- **Availability of nutritious food**
- **Availability of clean water**
- **Preventive measures**
- **Cleanliness**
- **Medical facilities**
- **Ensuring of leisure and entertainment**
- **Healthy environment**

10.The governmental institutions in the medical sector.

Medical Colleges

District Hospitals

Community Health Centres

Primary Health Centres

Health Sub Centres

11.The following institutions function to make available quality health services to all.

NRHM-National Rural Health Mission	NUHM-National Urban Health Mission
operates in the rural sector	operates in the urban slums and other marginalised people in towns with a population of more than 50,000.

12.natural resources+human resource=economic development of a country

Landscape Analysis through Maps_4

1.Topographic Map

*A large scale map

*minute details of all the natural and man made features on the earth's surface are depicted.

*These maps contain the important surface features such as the undulations of the terrain, rivers, other water bodies, forests,agricultural land, barren land, villages, towns, and transport and telecommunication systems.

*In India, Topographic maps are prepared by Survey of India.

1.Uses of topographic maps

*Analysis of the physical and the cultural features of the earth surface.

* For military operations and the preparation of military maps.

* Identification and studying of the natural and the cultural resources of a region as part of economic planning. *For urban planning.

*to understand land forms *to understand land usage of a particular area

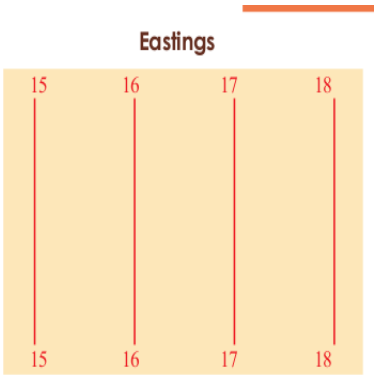
2.What is the importance of grid reference?

*Places are located on maps and globe with the help of latitudes and longitudes.
*But it is difficult to show the precise location of minor geographical features in toposheets, which are large scale maps.
*Grid reference helps to solve this difficulty.

3.what are the salient features of eastings and northings?

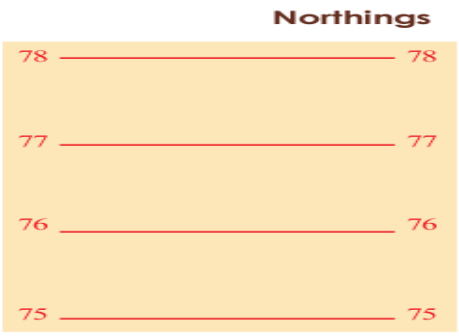
eastings

1.These are north-south lines.
2.Their value increases towards the East.
3.The value of the eastings immediately left to the geographic features is considered for identifying a location.



northings

1.These are east-west lines.
2.Their value increases towards the north.
3. The value of the northings immediately south to the geographic features is considered for identifying a location.



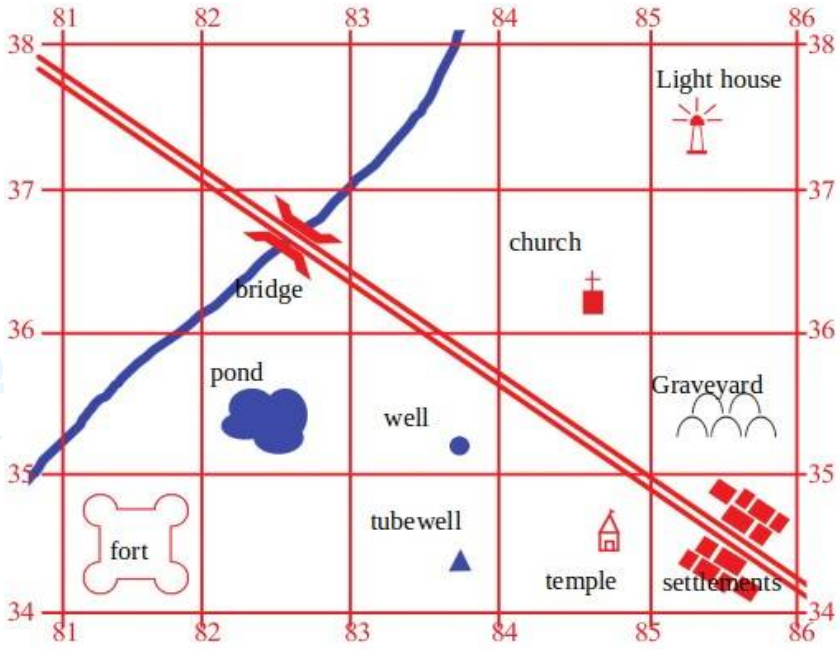
4.What is reference grid ?

*The grids formed jointly by the eastings and the northings are called reference grids.

*In 1:50000 toposheets each grid with 2 cm width and 2 cm breadth covers

an area with 1 kilometre length and 1 kilometre breadth on the earth's suface.

5.Find out the location of geographic features of the model grid given below using the 4-figure grid reference method.

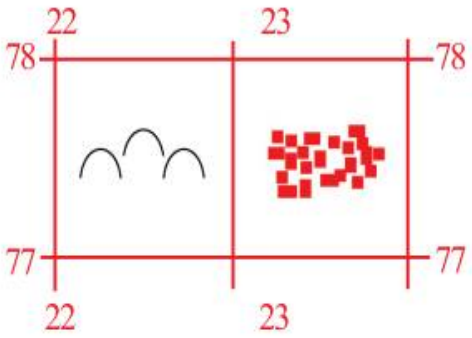


Pond----------8235 light house---8537
church-------8436 temple--------8434

graveyard----8535	**bridge------ 8236**
well----------8335	**fort---------8134**
settlements---8534	**tubewell----8334**

6.

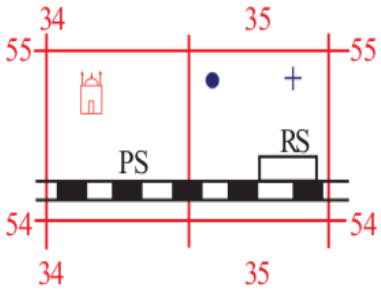
Find out the location of settlements and graveyard in the given grid, using the 4-figure grid reference method.



settlements --2377
graveyard-----2277

7.

Find out the location of spring, mosque, railway station, police station, and well in the given grid, using the 4-figure grid reference method



Spring +	35 54
Mosque	34 54
Railway station	35 54
Police station	34 54
Well	35 54

Public expenditure and Public revenue_05

1.What is public revenue? what are the sources of public revenue?
The income of the government is known as public revenue.
The sources of public revenue are 1.Tax Revenue 2.Non Tax Revenue

2.What is Tax? What are the two types of Taxes?
***Tax is a compulsory payment to the government by the public for meeting expenditure towards welfare activities, developmental activities etc.**
***The person who pays tax is called tax payer.**
***The two types of Taxes are 1.Direct Tax 2.Indirect Tax**

3.What is direct Tax?
***Direct Tax is the tax paid by the person on whom it is imposed.**

***The unique feature of direct tax is that the tax payer undertakes the burden of the tax.**

4.Which are the major direct taxes in India?

1.Personal Income Tax -It is the tax imposed on the income of individuals.

The rate of tax increases as the income increases.

Income tax is applicable to the income that is above a certain limit.

2.Corporate tax-This is the tax imposed on the net income of the companies.

5.Write a short note on Goods and Services Tax (GST).

***indirect tax**

*** Introduced in India on 1 st July 2017.**

*** To simplify the indirect tax system and to introduce one tax across the country**

***Merged different indirect taxes imposed by central and state governments in this tax system.**

***Taxes are levied at different stages starting from production to final consumption of goods and services.**

***In each stage the tax is imposed on the value added.Hence tax is collected only on value addition.**

***The tax paid in the earlier stages need not be paid by the final consumer.**

6.Which are the different types of Goods and Services Taxes (GST)?

a)The tax imposed by the central government is known as Central GST (CGST).

b)The tax imposed by the state government is known as State GST (SGST).

(These taxes are collected jointly from the consumers and are shared equally by the centre and state governments.)

c)The GST on interstate trade is imposed and collected by the central government. This is known as Integrated GST (IGST).

The share of the state government on IGST is given by the Central government.

Eyes in the sky and Analysis of Information_06

1.What is remote sensing?
A method of collecting information about an object, place or phenomenon without actual physical contact is remote sensing.

2.What is a sensor?
Sensors are devices used for data collection in remote sensing .
Cameras and scanners are sensors.
The sensors record the electromagnetic radiations reflected by objects.

3.Classify Remote Sensing based on platforms?
***A platform is the carrier on which sensors are fixed .**
***Based on the platforms Remote Sensing is classified into 3.**

1.Terrestrial Photography-In this method we are using cameras from the ground to obtain the topography of the Earth.
2.Aerial Remote Sensing- In this method we are using cameras mounted on aircrafts to obtain photographs of the Earth's surface continuously from the sky.
3.Satellite Remote Sensing-In this method we are using the sensors installed in artificial satellites to gather information.

4.What is Satellite Remote Sensing?

The process of collecting information using sensors fixed on artificial satellites is called satellite remote sensing.

5.Briefly explain Geostationary and Sun Synchronous satellites.

Geostationary satellites

-move in equal velocity with the earth's rotation.
- orbit the Earth at an elevation of about 36000 kilometres above the Earth
-One third of the earth comes under its field view.
-it stays constantly above a specific place on the earth(because the satellites move in equal velocity with the earth's rotation)
-This helps in continuous data collection of an area.
-It is used in telecommunication and for weather studies
-eg:INSAT satellites

Sun synchronous satellites

-passes around the earth along the poles.
-The orbit of these satellites is about 900 km in altitude.
-its field of view is less than that of the geostationary satellites .
-The repetitive collection of information of a region at regular interval is possible.
-Used for the collection of data on natural resources, land use, ground water etc.
-These satellites are mainly used for remote sensing purposes.
-eg:Satellites in IRS, Landsat series.

6.Analytical Capabilities of GIS

Network analysis, buffer analysis and overlay analysis are the important analytical capabilities of GIS.

Overlay analysis is used for understanding

a)the mutual relationship among the various features on the earth's surface and

b)the periodic changes undergone by them.

Overlay analysis is helpful in understanding the changes in the area of crops, the changes in land use etc.

Buffer Analysis

***A circular zone created around a point feature or a parallel zone created aside a linear feature in buffer analysis is called buffer zone.**

***Suppose if we want to find out the number of houses located within three kilometre radius of your school, the possibility of buffer analysis can be used effectively.**
For that with the help of buffer analysis a circular buffer zone with 3 km radius can be created around your school so as to find out the number of houses in that area.

***Suppose a road in your region is widening from 5 m to 8 m .**
In such a situation , a buffer zone of required width is created along the existing road by using the possibility of buffer analysis in GIS. Thus we can easily determine how much land has to be acquired and how many people will become homeless.

India :The Land of Diversities 07

1. The mountain ranges starting from the north west of Kashmir and extending up to the eastern boundary of India is known as the Northern Mountains.
2. Geographical features at a glance

3.

Northern mountain region		
Trans Himalayas	Himalayas	Eastern Highlands
(a) Karakoram (b) Ladakh (c) Zaskar	(i)Himadri (ii) Himachal (iii) Siwaliks	(1) Patkai Bum (2) Naga hills (3) Garo, Khasi, and Jaintia hills (4) Mizo hills

4. **Trans Himalayas:-***include Karakoram, Ladakh, and Zaskar mountain ranges.
*Mount K2 (8661m) also known as Godwin Austin, the highest peak in India, is in the Karakoram range.
*The average height is 6000 metres.

5. **Himalayas**:-
*Between the north - west trans himalayas and the south-east eastern highlands.
*A length of about 2400 kilometres.
*Many of the world's highest peaks are situated here.
*height decrease towards the east.
*The is ar the Kashmir region and
150 kilometre inArunachal Pradesh.
*Himalayas include three parallwidth el mountain ranges of area
over 5 lakh square kilometres.
They are 1)Himadri 2)Himachal 3)Siwaliks
*Oak, chestnut, maple etc.and coniferous trees such as deodar, spruce, etc. are seen in Himalayas.

6.What are the characteristic features of the three mountain ranges of Himalayas?

Himadri	Himachal	Siwaliks
***The highest mountain range. *Average altitude is 6000 metres. *Origin of the rivers Ganga and Brahmaputra. *Has a number of peaks above 8000 metres (Eg:Kanchenjunga,Nandadevi)**	***Situated to the south of the Himadri *Average altitude is 3000 metres *The hill stations like Shimla, Darjeeling,etc. are situated in the southern slopes of this range.**	***Situated to the south of the Himachal. *Average altitude is 1220 metres. * As the Himalayan rivers cut across this range, its continuity breaks at many places. • Broad flat valleys seen along these ranges are called Duns.eg-Dehradun**

7.**.Eastern Highlands**
*at an altitude of 500 to 3000 metres
*also known as Purvachal
*Cherrapunji, the place receiving the highest rainfall in the world is situated here.
*covered by dense tropical rainforests.

8.The soil generally found in the northern mountain region is fertile mountain soil.

9.**Significance of the Northern Mountains**
*protect us from foreign invasions from the north since ancient times.
*Block the monsoon winds and cause rainfall throughout North India.
*Prevent the dry cold winds blowing from the north from entering India during winter.
*Caused the emergence of diverse flora and fauna.
*Source region of rivers. *rich sources of fresh water *rich forest resources

10.

Himalayan Rivers			
Himalayan Rivers	**Origin**	**Length**	**Tributaries**
Indus	**Manasarovar lake in Tibet**	**About2880Km Only709 Km of this river flows through India)**	***Jhelum *Ravi *Chenab *Beas *Sutlej**
Ganga	**Gaumugh caves in the Gangothri glacier**	**About 2500Km**	**Yamuna ,Gomathy, Ghaghara, Gandak, Kosi ,Chambal, Betwa, Ken, Son.**
Brahmaputra	**Chema-yung-dung glacier in Tibet**	**About2900Km (Only 725 Km in India)**	Tista,Luhith, Subansiri, Manas

11.

Peninsular rivers

River	Origin	Approximate length	Major tributaries
Narmada	Maikala Ranges (Chhattisgarh)	1312 Km	Hiran, Banjan
Tapti	Muntai Plateau (Baitul distruct in Maharashtra)	724 Km	Anar, Girna
Godavari	Western Ghats (Nasik district of Maharashtra)	1465 Km	Indravathi, Sabari
Krishna	Western Ghats (Mahabaleswar in Maharashtra)	1400 Km	Bhima, Thungabhadra
Kaveri	Brahmagiri Ranges in Western Ghats (Karnataka)	800 Km	Kabani, Amaravathi
Mahanadi	Maikala Ranges (Madhya Pradesh)	857km	Ib, Tel

12.Most of the peninsular rivers enter the plains by forming waterfalls. Why is it so?

*Peninsular rivers flow through peninsular plateau.

*Sides of plateaus are comparatively higher than the plains around it.

*When the rivers flow from plateaus to plains they make waterfalls.

13.Classify the peninsular rivers based on their direction of flow.

West flowing rivers	East flowing rivers
Narmada Tapti Godavari Krishna Mahanadi	Kaveri Mahanadi

14.Compare Himalayan rivers and Peninsular rivers.

Himalayan rivers	Peninsular rivers
Originate from the Himalayan mountain ranges	Originate from the mountain ranges in the peninsular plateau.
Extensive catchment area	Comparatively smaller catchment area
Intensive erosion	Intensity of erosion is less
Create gorges in the mountain region and meander in plains	Do not create deep valleys as they flow through hard and resistant rocks
High irrigation potential	Less irrigation potential
Navigable along the plains	Potential for inland navigation is low

15. * Brahmaputra is known as Jamuna in Bangladesh
* Brahmaputra is known as Tsangpo in Tibet.

16. **Godavari** is the longest among the peninsular rivers.

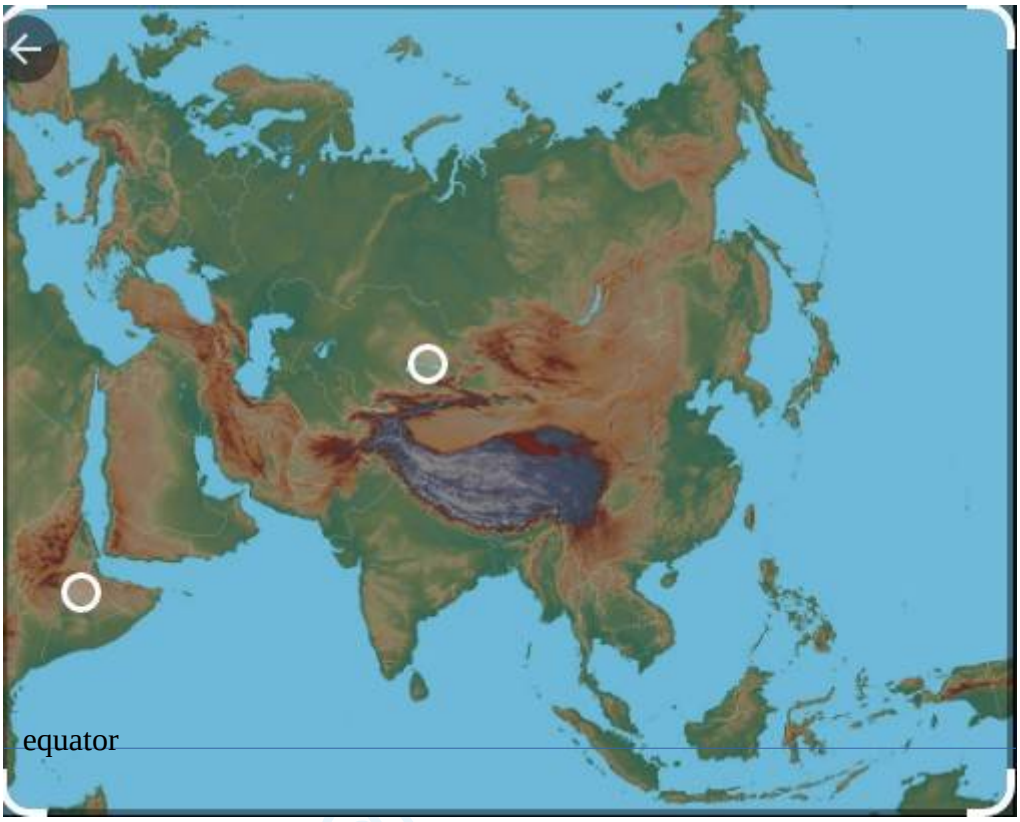
17. The highest waterfall is the Jog Falls (225metres) in the Sharavathi River in Karnataka.

18. **The coastal plains of India**

Western coastal plain	Eastern coastal plain
1.Between the Arabian Sea and the Western Ghats 2. From the Rann of Kutchh to Kanyakumari 3.Comparatively narrow 4. Can be divided into Gujarat coast, Konkan coast, and Malabar coast 5. Backwaters and esturies are seen	1.Between the Bay of Bengal and the Eastern Ghats 2.From the Sundarban delta region to Kanyakumari 3. Comparatively wide 4. Can be divided into north Zircar plain and Coromandal coast 5. Delta formation takes place

***Alluvial soil is present throughout the coastal plains.**
***Rice, coconut, etc., are widely cultivated here.**

19.Southwest monsoon season in India



*When the sun is over the northern hemisphere, North Indian regions experience intense low pressure.

*Owing to the high pressure over the oceans, wind blows from high pressure to low pressure regions, that is, from the Indian Ocean to the Indian sub- continent.

*As the winds deflect towards right due to coriolis effect, they reach India as southwest monsoon winds.

Because of the peculiar shape of the Indian peninsula, the southwest monsoon winds bifurcate into two branches on entering the land.
• Arabian Sea branch• Bay of Bengal branch

*The Arabian Sea branch that reaches the coast of Kerala by early June causes heavy rainfall here. Then it advances to the states of Karnataka, Goa, Maharashtra, and Gujarat and causes rainfall in the western parts.

*Rainfall is scarce in the Rajasthan region because the monsoon branch entering through Gujarat blows parallel to the Aravalli mountain ranges.

*The Bay of Bengal branch of the monsoon advances northward by absorbing more moisture from the Bay of Bengal.
*On reaching West Bengal, crossing the Sundarban delta, it bifurcates into two branches. One branch reaches the northeastern states through the Brahmaputhra plains and causes heavy rainfall there.

*The other branch enters the Ganga plains and causes rainfall in West Bengal, Bihar, Uttar Pradesh, etc. This branch merging with the Arabian Sea branch in the Punjab plains advances north further and causes heavy rainfall along the foothills of the Himalayas.

20. Retreating monsoon season

*By the end of September, as the sun apparently shifts towards the southern hemisphere, intense high pressure develops over the northern plains.
*Comparatively low pressure over the Indian Ocean causes wind to blow from the northern part of India towards the Indian Ocean.
*These winds known as northeast monsoon winds are dry winds that do not generally cause any rain in India.
*This season termed as north east monsoon is actually a transition period between the rainy season and the forth coming winter.
*This season experienced during the months of October and November makes the days unbearable due to high temperature and humidity.
*This phenomenon is known as October heat.

*The winds blowing from land to sea due to the attraction of low pressure over the Bay of Bengal takes a northeast to southwest direction.
* It absorbs moisture from the Bay of Bengal and causes rainfall along the coromandal coast, especially the Tamil Nadu coast.
*This is the main rainy season of Tamil Nadu, Kerala and some parts of Karnataka also receive northeast monsoon rains.

21.Map work : click here

Resource Wealth of India 08

1.Cropping seasons

Cropping seasons	Sowing period	Harvesting period	Major crops
Kharif	June(Onset of monsoon)	Early November (End of monsoon)	Rice, maize, millets, cotton, jute, sugarcane, groundnut
Rabi	November (Beginning of winter)	March (Beginning of summer)	Wheat, tobacco, mustard, pulses
Zaid	March (Beginning of summer)	June(Beginning of monsoon)	Fruits, vegetables

2.Agricultural crops

*The diverse agricultural crops of India can be classified as food crops and cash crops.
*The crops which can directly be consumed as food are called food crops.

3.The major food crops in India are

1.Rice

*a kharif crop.
*Alluvial soil is most suitable for rice cultivation.
*Rice requires high temperature (above 24° C) and a good amount of rainfall (more than 150 cm).
*Rice is mostly cultivated in river basins and coastal plains.
*Rice is also cultivated by making terraces along the slopes of Siwaliks.

2.Wheat

*Wheat, the second major food crop produced in India is a rabi crop.
* Well drained alluvial soil is ideal for wheat cultivation.
* The crop which is mainly cultivated in temperate regions requires 10°C to 26°C temperature and 75 cm of rainfall.
*Wheat cultivation in India is mainly dependent on irrigation as it is a winter crop.

3.Maize

• Maize is the third major food crop produced in India.
• In India, maize is cultivated in both summer and winter.
• Cultivated in regions receiving an annual average rainfall of 75 cm.
• Well drained fertile soil is ideal.
• Maize is mostly cultivated in Madhya Pradesh, Karnataka, Rajasthan and Uttar Pradesh.

In addition to rice, wheat, and maize, the food crops in India also include barley, millets, pulses, etc.

4.What is the importance of transportation for the development of a nation?

Efficient mode of transport is essential for ensuring the required raw materials in the areas of production and to bring the products to the consumers.

5.What are the advantages of water transport?

*The cheapest means of transport.
*Suitable for large scale cargo transport.
*Does not cause environmental pollution.
*Most suited for international trade.

6.

Water transport

Inland water transport	Marine transport

7.Name the waterbodies largely used for inland water transport in India.

*Ganga-Brahmaputra rivers and their tributaries
*Godavari-Krishna rivers and their tributaries
*Buckingham canal of Andhra -Tamil Nadu region
*Mandovi and Zuvari rivers of Goa*Back waters of Kerala

8.Name the important national waterways

*National Waterway 1 (NW 1) Allahabad to Haldia in the river Ganga(1620 Km)

*National Waterway 2 (NW 2) Sadia to Dubri in the river Brahmaputhra(891 Km)

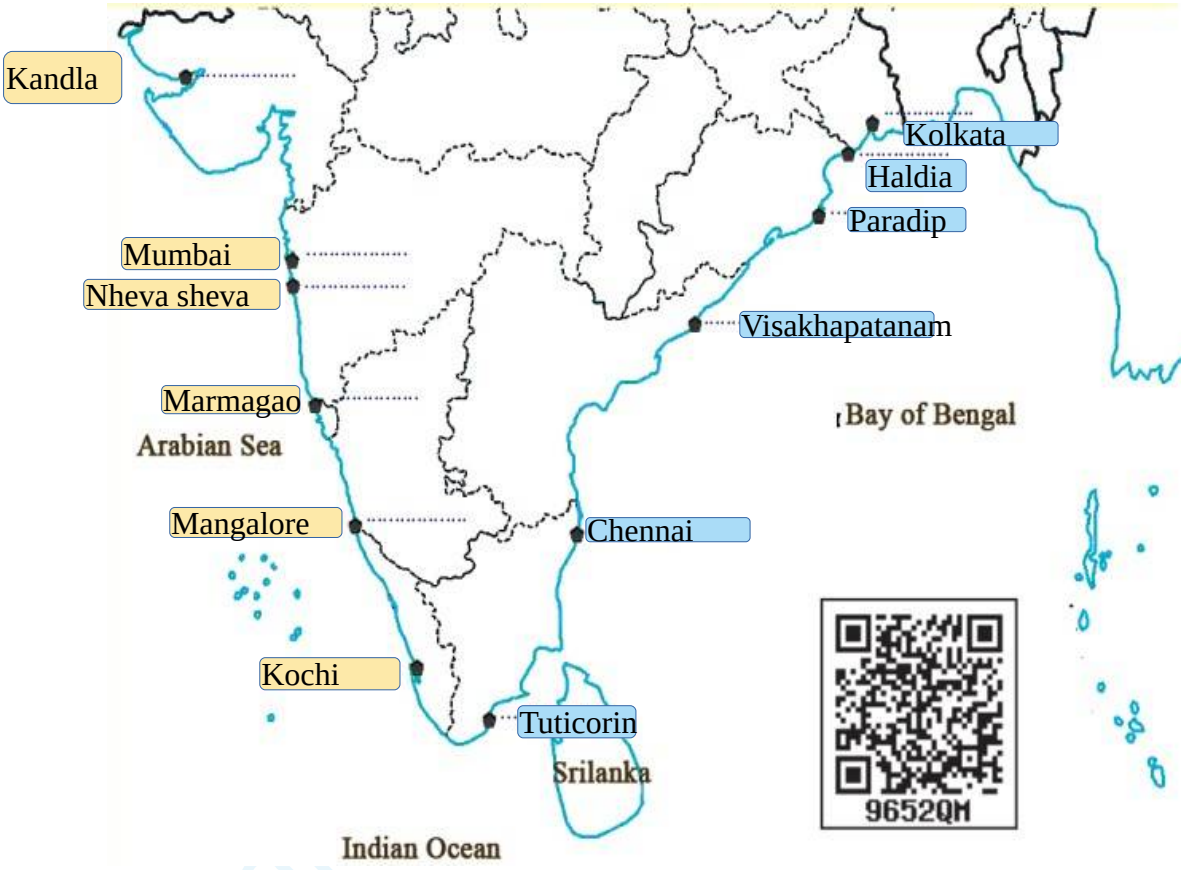
*National Waterway 3 (NW 3) The west coastal canal in Kerala from Kollam to Kottappuram (205 Km)

*National Waterway 4 (NW 4) Canal from Kakinada to Puducherry linking Godavari and Krishna (1095 Km)

*National Waterway 5 (NW 5) Brahmani - Mahanadi delta river system linked to east cost canal (623 Km)

9.Inland water transport is utilised for 1) passenger transport
2)cargo transport
3) fishing
4)tourism.

10.The major ports in India.



Financial Institutions and Services 09

1.Reserve Bank of India:-

***The Reserve Bank of India is the apex bank of India.**
***It was established in 1935. *Its headquarters is in Mumbai.**

2.Functions of Reserve Bank of India

***Printing of currency :-** **All currencies except the one rupee note are printed by the Reserve Bank of India.**
The one rupee note and its subsidiary coins are issued by the Central Finance Department.

***Controlling credit :-**

The Reserve Bank of India increases the money supply in Indian economy through the distribution of printed currency and through credit creation.
***Control of credit is one of the main functions of the Reserve Bank.**
***This is made possible by bringing about changes in the rate of interest.**
As rate of interest increases, volume of loans decreases and vice versa

***Banker to government :-**

Reserve Bank of India is the banker to the central and state governments.
the Reserve Bank of India accepts deposits from the government, sanctions loans and renders other banking services to them.
The Reserve Bank of India does not charge any fees for these services.

***Banker's bank:-**

The Reserve Bank is the apex bank of all banks.
To advise and assist all banks in their operations is a function of the RBI.
It acts as a last resort to all banks in their financial matters.

3.What are the functions of Commercial Banks?

Accepting deposits

1.Savings Deposit

***This scheme helps the public to deposit their savings.**
***Banks provide low interest rate for such deposits.**
***The depositor can withdraw the money from the deposit, subject to restrictions.**

2.Current Deposit

***This deposit facilitates depositing and withdrawing money many times in a day.**
***This deposits are used mainly by traders and industrialists.**
***This type of deposits does not receive any interest.**

3.Fixed Deposit

***Fixed deposits are ideal for depositing money in banks**
***The interest rate is calculated on the basis of the time period for which the money is deposited.**

4.Recurring Deposit

***Recurring deposits receive a specific amount every month for a specified period of time. The interest rate of recurring deposits will be higher than that of saving deposits but less than that of fixed deposits.**

Providing loans

The amount of money accepted as deposit from the public is granted as loans by the banks.
Banks provide different types of loans to individuals and institutions.
The interest rate of loans will be higher than the interest rate of deposits.
There will be differences in the interest rate depending on the duration of loan, its purpose, etc.

Other facilities and services provided by banks

Locker facilities
Demand draft(to send money from one place to another)
Mail transfer
Automated Teller Machine (ATM)
Credit card
Other services *payment of insurance premium,
***telephone and electricity bills,mobile recharging,**
***booking journey tickets, disbursing Service pension**

4. What are the modern trends in banking sector?

1.Electronic banking

Electronic banking is a method by which all transaction can be carried out through net banking and tele banking.
Any time banking,anywhere banking, net banking, mobile phone banking, etc. are part of electronic banking.
Advantages are 1) money can be sent to anywhere in the world from home
2) bills can be paid anywhere in the world from home
3) Saves time
4) Low service charge

2.Core banking

Branches of all banks are brought under a central server so that banking services from one bank to another is made possible.
Transactions have become simple.
By using this facility, an individual can send money from his bank account to his friend's account elsewhere.

Consumer :Satisfaction and Protection 10

1.What are the rights of consumers as per Consumer Protection Act 1986?

- **The right to be protected against the marketing of goods and services which are hazardous to life and property.**
- **The right to be informed about the quality related aspects of goods and services.**
- **The right to have access to goods and services at fair prices.**
- **The right to be heard and to seek redressal at appropriate forums.**
- **The right to consumer education.**

The consumer courts were established as a result of this Act.

2.Explain the structure and jurisdiction of the consumer courts.

Consumer courts play an important role in ensuring justice to the consumers.

They settle consumer disputes .

They create confidence in the consumers.

3.What are the the important features of consumer courts?

- **Simple procedures**
- **Fast assurance of justice**
- **Less court expenses**
- **a written petition is enough**
- **A nominal fee is charged**

4. List out the different departments and the functions for the protection of consumers' interests.

- Legal Metrology Department → ensures the weights and measures standards
- Food Safety Department → ensures the quality of food products
- Central Drugs Price Control Committee → controls price of medicines
- Drugs Control Department → ensures the quality and safety of medicines.
- Food Safety and Standard Authority of India → ensures the quality of food products at various stages like production, distribution, storage, sale and import.