

(A) Chandragupta II was a 4-5<sup>th</sup> Century Gupta Dynasty ruler. He defeated the western kshatrap of Shakas. Mehrauli iron pillar accounts for his reign.

प्रश्न: (1.2)

(B) Lothal is a Harappan site in Gujarat. It was used as a clowyard by the Indus Valley people. A fire altar, several seals have been discovered here.

प्रश्न (1.3)

(C) 6<sup>th</sup> Century (BC) philosophical texts that deal with relationship of soul (atman) & the universe (Brahman). These are basic texts of Vedanta Philosophy.

प्रश्न: (1.4)

(D) Khizra Khan laid the foundation of the Sayyid Dynasty. He was appointed by Timur to look after Timurid possessions in India.

प्रश्न (1.5)

(E) Nur Jahan was the wife of 4<sup>th</sup> Mughal emperor Jahangir. She built the tomb of Itmadudaulah - a classic example of Mughal architecture.

प्रश्न: (1.6)

(F)

उत्तर

Nagpur session of congress happened in 1920. In this session congress was reorganised - congress working committee, provincial committees, and reduced membership fees. Linguistic reorganisation of provinces was ~~not~~ accepted as a goal.

पू./म = 03

प्रश्न: (1.7)

(G)

उत्तर

Kol rebellion was a tribal revolt against british policies. It happened in the Chotanagpur region prior to the Revolt of 1857.

पू./म = 03

प्रश्न: (1.8)

(H)

उत्तर

Surat session (1907) is known for the split of congress into moderates & extremist sections due to differences in strategy & british policy of divide & rule.

पू./म = 03

प्रश्न: (1.9)

(I)

उत्तर

Tanya Tope was supporter of Nana saheb (adopted son of last Peshwa). He led the Revolt of (1857) in Kanpur, helped Rani Laxmi Bai in capturing Gwalior and later led guerilla war against britishness.

पू./म = 03

प्रश्न: (1.10)

(J)

उत्तर

Rani Durgabati was the ~~second~~ queen of Condware kingdom. She ~~has~~ presented a strong challenge against Mughal expansion during Akbar's reign.

पू./म = 03

## SECTION - A

खंड-'अ'

प्रश्न 1 इस प्रश्न में 15 अतिलघुत्तरीय उप प्रश्न हैं। प्रत्येक प्रश्न का उत्तर अधिकतम 15 से 20 शब्दों में देना है। सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न 03 (तीन) अंकों का है।

Question 1 This question contains 15 very short type subquestions. Answer each question in maximum 15 to 20 words. All questions are compulsory. Each question carries 03 (Three) Marks.

3x15=45

प्रश्न (1.11)

(M)

उत्तर

Decentralisation is the devolution of power to a ~~lower~~ local governments. Government of India Act 1935 was the culmination of decentralisation in British India

पू./M = 03

प्राप्तांक

प्रश्न (1.12)

(O)

उत्तर

Ashwagkosh was a Buddhist scholar in the court of Kanishka. He wrote Buddhacharita

पू./M = 03

प्राप्तांक

प्रश्न: (1.13)

उत्तर :

पू./M = 03

प्राप्तांक

प्रश्न: (1.14)

उत्तर :

पू./M = 03

प्राप्तांक

प्रश्न: (1.15)

उत्तर :

पू./M = 03

प्राप्तांक

प्रश्न: 2. निम्नलिखित में से किन्हीं 10 प्रश्नों के उत्तर अधिकतम 100 शब्दों में लिखिए। प्रत्येक प्रश्न 6 (छः) अंकों का है।  
 Question 2 Write the answers of any ten of the following questions in maximum 100 words. Each question carries 6 (Six) marks.

6x10=60

प्रश्न: (2.1) भारत में राज्यपाल-पद के औचित्य व महत्त्व की समीक्षा कीजिए।

Examine the justification and significance of the post of Governor in India.

(2) (A)

उत्तर:

Renaissance (rebirth) was a period of ~~rebirth~~ transition from medieval to modern times in Europe. It was characterised by revival of classical literature, & learning & development of art & architecture.

Impact

Cultural

↳ contributions of renaissance thinkers like Dante (Divine Comedy), Erasmus, Chaucer (Canterbury tales), Thomas more (Utopia),

↳ Art & Architecture - Michelangelo, Leonardo da Vinci, Raphael were ~~good~~ great artists of the period. ~~many~~ works like Mona Lisa, statue of David were produced.

Political → New ideas about democracy, rights, secularism were promoted in political sphere.

Social Impact → Spirit of humanism, spirit of inquiry & rational thinking became essential features of European society.

पृ. 11 - 06



## SECTION - A

खंड-'अ'

- प्रश्न: 2. निम्नलिखित में से किन्हीं 10 प्रश्नों के उत्तर अधिकतम 100 शब्दों में लिखिए। प्रत्येक प्रश्न 6 (छः) अंकों का है।  
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6x10 = 60

P/M = 06

प्रश्न: (2,8)

2(B)

उत्तर: Industrial Revolution began in England in  
1650s.

Causes

- ① Political stability - England was a constitutional monarchy & relatively more stable, no war was fought on England's soil in that period.
- ② Availability of Natural resources such as coal, Iron, water resources etc.
- ③ Transport facilities - Rivers and ports, later on the development of steam engine promoted Railways.
- ④ Economic Prosperity  
 Agricultural revolution had improved standards of living, labour was readily available in towns. Capital was also available from Banks.
- ⑤ Inventions  
 like powerloom, steam engine (James Watt) revolutionise the manufacturing in England.  
 Other Nations also had some of these advantages but England had all the factors of production.

प्रश्न: 2. निम्नलिखित में से किन्हीं 10 प्रश्नों के उत्तर अधिकतम 100 शब्दों में लिखिए। प्रत्येक प्रश्न 6 (छः) अंकों का है।  
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6x10 = 60

पृ. नं. 06

प्रश्न (2.9)

2(C)

उत्तर : Economic situations in France played a decisive role in the Revolution.

Economic factors

1) Financial troubles of the state.

French government was on the brink of insolvency. They had borrowed unsustainably to fund their wars in America. Royal extravagance was another reason.

2) Undue burden of taxes on the 3<sup>rd</sup> Estate.

(Peasants, workers, Business class, professional) - Peasants were the largest group.

3) Failure of Agriculture and resultant food scarcity leading to inflation.

4) Disaffection with the Feudal Estate system that accorded privileges to 2 classes while the 3<sup>rd</sup> class was overburdened.

Thus Economic conditions created anger and disaffection towards the Government (monarch) among people.



2(D)

उत्तर :

Indus valley civilisation was an Urban civilisation.

### Agri | Economic features

- Agriculture was practiced in the hinterland and was the main source of food for people. Main crops - Wheat, Barley, peas, cotton, oilseeds, etc.
- Artisans and Handicraft Industry.  
Metal works (Copper & Brass), spinning and weaving, Jewellery making (amulets, necklaces, bangles), Bead making, Pottery etc. were important crafts.
- Trade  
Indus people had well established trade links with Mesopotamia, Iran, Oman & ~~in~~ other parts of India such as Rajasthan & South India.  
Indus seals have been found in large numbers in Mesopotamia.

Thus the Economy was in a flourishing state.



2(F)

उत्तर

Ashoka took several measures to promote dhamma among the masses. He erected pillars, issued rock edicts, appointed dhammamahatthas for his purpose.

His Dhamma was a set of moral guidelines and code of conduct for people, it was not sectarian (based on a specific faith) but practical & ethical.

### Features of Dhamma

- o Respect for parents and good treatment to relatives.
- o Renounce to teachers and Brahmins, monks.
- o Non injury to animals, giving up of meaningless rituals & sacrifices.
- o Good treatment to slaves and servants.
- o Officials were asked to take care of the public welfare, mistreatment of people should be avoided, unfair imprisonment & unduly harsh punishment should be prevented.





प्रश्न: (2,3)

2(C1)

उत्तर : Allauddin Khilji initiated market reforms to check the prices of essential commodities.

Objectives → He started paying soldiers in cash, there was a need to ensure price control to avoid burden on state treasury.

### Market Reforms

- 3 separate markets for food products, luxury items and slaves and horses were established.
- Each market was kept under an official called Shahrat-e-mandi.
- ~~Spies~~ Prices for essential commodities were fixed & regulated.
- Spies and slave boys were sent to the market to check the prices.
- Merchants/traders who ~~did~~ violated regulations were punished and their licences were cancelled.



प्रश्न: (2.4)

2(1)

उत्तर :

Alkbar was a religiously tolerant ruler.

He recognised that to rule a predominantly Hindu country he needed to respect the local traditions.

Essential features of his religious policy

① Equal opportunities to Hindus in the Administration. e.g. Todar mal & Raja man Singh.

② Policy of reconciliation with the native Hindu rulers. e.g. Ruyat.

③ Syncretic traditions → He had discussions with religious scholars of Hinduism, Zoroastrianism, Islam and evolved a new religious doctrine.

④ Din-i-Ilahi - new faith evolved by Akbar to promote religious unity.

⑤ He abolished Jizya & Pilgrimage tax

⑥ His Hindu Queen were allowed to continue their religious practices within royal household.

प्रश्न: (2.5)

2(k)

उत्तर :

Khajuraho in the Chhatarpur district is a

renowned world heritage site.

It was a ~~cap~~ main city under the Chandela rulers of Jejabhukti (9<sup>th</sup> - 13<sup>th</sup> century). The

rulers built the Khajuraho temples.

Features

- o classic example of ~~Nagara~~ Nagara style of Temple architecture. eg. Kanderiya Mahadev temple.
- o main characteristics include shikhara, raised platform, intricate carving of the walls of the temple. Sculptures of Khajuraho temple are world famous.
- o Hindu & Jain temples are found here.
- o Other main attraction is the Khajuraho Festival organised every year, where cultural richness of India (classical dance forms, music) are shown.

प्रश्न: (2.12)

2(L)

उत्तर :

Bhoja Parmar was a rayput ruler of Parmar dynasty in 11<sup>th</sup> century AD. He is most known for his cultural contribution

◦ Raja Bhoj was a polymath (knowledge of various subjects). He composed works like Champu Ramayana,

◦ He patronised learning and literature & supported growth of sanskrit literature.

◦ Bhojshala - A centre of sanskrit learning was started by Bhoj Parmar.

◦ He also laid foundation of a shiva temple in Bhojpur.

◦ Krishna Deva Raya (a ruler of Vijayanagar Empire) is known as Andhra Bhoj (or Bhoj Parmar) for his cultural contributions

3(A) First World War <sup>was</sup> fought between European nations in (1914-1918). Britain, France, Russia were part of Allied power, Germany, Austria-Hungary, Bulgaria were the Axis powers.

### Causes

- (1) Growth of Nationalism in Europe.
- (2) Militarism - Taking pride in large standing army, constant efforts to increase military power & continuous preparation for war.
- (3) Colonial aspirations of European nations which brought them into conflict with each other.
- (4) Formation of alliances, By ~~the~~ beginning of 20<sup>th</sup> century European powers were divided into different-camps.  
Due to the alliance system, a war between two nations could easily become a world war by involvement of their respective allies and eventually their colonies.
- (5) Situation in Balkan Peninsula - Serbia, Bulgaria, Herzegovina was very tense and it was regarded as 'powder keg' of Europe.

उत्तर :

## Effects of world war I

- (1) Uneasy Peace - The peace treaties such as Treaty of Versailles, Neuilly were seen as unfair hence led to dissatisfaction among defeated countries.
- (2) Formation of League of the Nations.  
The Organisation however was not very effective in maintaining peace.
- (3) Growth of Nationalism in Colonies  
Participation of troops in war, war time miseries, denial of independence etc. provided further impetus to National movements.
- (4) Changes in the political map of Europe.  
Breakdown of Austrian Empire, transfer of Alsace Lorraine from Germany to France, formation of new Nations.
- (5) Russian Revolution (1917) was also a result of First world war to an extent.

(3) (A)

Russian revolution of 1917 led to the establishment of first communist government in the world.

### Causes

(1) Political Causes..

- Autocratic rule of Tsar Nicholas.
- Inefficient & corrupt administration, prevalence of Nepotism
- Russian involvement in First World War → Reverses suffered.
- Russo-Japan war - 1905, defeat served as blow to the prestige of Rulers.

(2) Economic causes

- Russian Industries were comparatively underdeveloped.
- Their army was less prepared & equipped in comparison to the European counterpart.
- War time Economic miseries - Food scarcity, increase in prices.
- Agriculture was stagnating and overburdened.

(3) Role of soviets - Soviets were councils of peasants & workers who played an important role in mobilising people.

प्रश्न: (3.3) Continued (जारी)

- (4) ~~so~~ spread of socialist ideas of equality, Fraternity, common ownership of property.
- (5) Role of Bolsheviks ~~also~~ led by Lenin

### Consequences Effects of Russian Revolution

- (1) Abolition of monarchy.
- (2) formation of ~~socialist~~ Communist government.
- (3) Russian withdrawal from the first world war.
- (4) ~~Re~~ Cultural autonomy to different nationalities within Russia such as central Asian region.
- (5) Communist Russian government was against imperialism of European nations and it supported the freedom struggle in the colonies e.g. - support to Communist Party in China.
- (6) ~~Legacy~~ Economic reorganisation - New Economic policy of Lenin recognised mixed Economy as the ~~is~~ driving force.
- (7) Legacy • Indian Economy after Independence was based on NEP 1920. It gave the ideals of social justice & Equality ~~in~~ which are enshrined in our constitutions.



प्रश्न: (3.3)

3(B)

उत्तर :

~~Asoka~~ Chandragupta Maurya was the founder of Mauryan Empire.

His administrative policies: (Central Administration)

(1) Royal absolutism

King the centre of Administration, and the ultimate authority in all matters held with him.

(2) Mantri Parishad - A council of ministers to advise the king.

(3) Foreign relations

Based of Kautilya's Arthashastra, Diplomacy & tact was used to deal with ~~foreign~~ neighbouring Kingdoms.

(4) Army Administration

He maintained a large standing army with 5 wings - ~~Army~~ Infantry, chariot, Elephant, Navy, ~~Army~~ transport & supply.

(5) Economic Administration

Kautilya helped lay down a very robust system of Economic administration.

- all economic activities were regulated by the state.
- state enjoyed monopoly over some activities such as → ~~alcohol~~ liquor, mining, forestry etc.
- Land revenue was collected with the help of state officials. ~~collected from~~
- assessment of land was given prime importance.

### Espionage

He maintained a cadre of spies to keep check of the activities of officials as well as other rulers especially enemies.

### Provincial Administration

- Mauryan Administration was highly centralized, the empire was divided into 4 ~~provinces~~ provinces
- o ~~and~~ ~~provinces~~, Ujjain, Pataliputra,
  - o Provinces were administered by governors who were usually royal princes.
  - o Local administration was maintained by ~~Ajuktas~~, Nagarkas and Village headmen.
- Thus an elaborate administrative system was set up by Chandragupta Maurya.

प्रश्न 1 इस प्रश्न में 15 अतिलघुतरांय 30 प्रश्न हैं, प्रत्येक प्रश्न का उत्तर अधिकतम 15 से 20 शब्दों में होना अनिवार्य है। प्रत्येक प्रश्न 03 (तीन) अंकों का है।  
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प्रश्न (1.1) भारतीय संविधान के अनुच्छेद 14

Article 14 of the Constitution of India.

2 उत्तर: (B)  
Sholas are a type of ~~temperate~~ grasslands located in the Nilgiris of south India.

प्र./म = 03



प्राप्तांक

प्रश्न: (1.2)

उत्तर: (C)  
Lapolims are intrusive <sup>formed</sup> (within the earth's crust) volcanic landforms. Formed by the solidification of lava within earth crust in the shape of ~~saucer~~ saucer.

प्र./म = 03



प्राप्तांक

प्रश्न: (1.3)

उत्तर: (D)  
Albedo is the amount of ~~insolation~~ insolation reflected back into space by clouds, ice cover & atmosphere.

प्र./म = 03



प्राप्तांक

प्रश्न: (1.4)

उत्तर: (E)  
Hydrogen gas can be converted into electricity using fuel cell technology. Hydrogen is ~~the~~ one of the most abundant elements but it is found in combined form.

प्र./म = 03



प्राप्तांक

प्रश्न: (1.5)

उत्तर: (F)  
Characteristic vegetation of high ~~to~~ altitude & cold climate (>3000m). It has mosses and lichens.  
eg. ~~Himalay~~ higher reaches of Himalayas that are snow covered.

प्र./म = 03



प्राप्तांक

प्रश्न: (1.6)  
(H)  
उत्तर: Palghat pass is located in the southern portion of Western Ghats in Kerala. Provide connectivity from Kochi to Madurai in Tamil Nadu.

प्र./म = 03  
  
पाठ्यक्रम

प्रश्न: (1.7)  
(I)  
उत्तर: Green house gases can trap the sun's heat within Earth's atmosphere. They are opaque to long wave terrestrial radiations and keep the earth warm by trapping these radiations. eg. CO<sub>2</sub>, N<sub>2</sub>O, water vapour.

प्र./म = 03  
  
पाठ्यक्रम

प्रश्न: (1.8)  
(J)

Duns	Duars
Longitudinal valleys found in Shiwaliks in Western Himalayas, eg. Pithor dun, Patli Pun	Alluvial deposits found in lower reaches of Eastern Himalayas. eg. imbitiam, Assam. used for tea cultivation.

प्र./म = 03  
  
पाठ्यक्रम

प्रश्न: (1.9)  
(K)  
उत्तर: Soil is a dynamic medium constituted by minerals, organic matter, air & water. It is capable of supporting plant growth.

प्र./म = 03  
  
पाठ्यक्रम

प्रश्न: (1.10)  
(M)  
उत्तर: Satpura, Malwa range are Block mountains located in southern part of Madhya Pradesh. These were formed as a result of faulting during Himalayan formation.

प्र./म = 03  
  
पाठ्यक्रम

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3x15=45

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प्रश्न 1.

प्रश्न (1.11)

(A)

प्र./म = 03

प्राप्ततांक

उत्तर

Ocean Trough is a <sup>deep</sup> depression found along continental boundaries. These are narrow valleys with steep side ~~sides~~ which are 3-6 km deeper than surrounding ocean floor. eg. Mariana Trench.

प्रश्न (1.12)

प्र./म = 03

प्राप्ततांक

उत्तर :

प्रश्न (1.13)

प्र./म = 03

प्राप्ततांक

उत्तर :

प्रश्न (1.14)

प्र./म = 03

प्राप्ततांक

उत्तर

प्रश्न (1.15)

प्र./म = 03

प्राप्ततांक

उत्तर

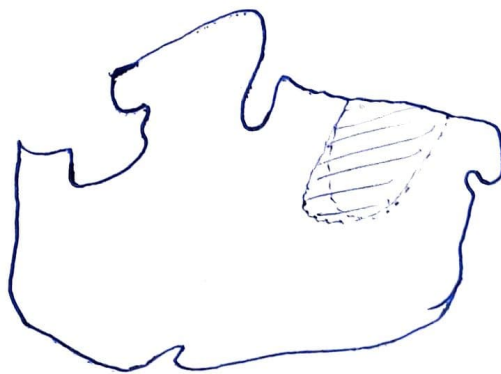
प्रश्न: (2.6)

(C)

Rewa Panna Plateau

उत्तर :

- Part of Central Highlands, the plateau is surrounded by Bundelkhand plateau (in West), Baghelkhand Plateau in (East) ~~is~~, Marwad, Son Valley & Vindhyan Plateau (in south)
- Resources & crops → Region has rich reserves of Limestone & hence site for cement industry  
main crops - Jowar, Oilseeds, wheat.
- Climate, soil & Rock formation.  
Vindhyan rock formation, characterised by mixed (red & black) soil which is rich in calcium  
Climate is continental with (100cm) average precipitation.
- districts covered - Rewa, Satna, Damoh, Jabalpur etc.



SECTION - A

खंड-'अ'

6x10=60

पृ. 06

प्रश्न

प्रश्न: 2. निम्नलिखित में से किन्हीं 10 प्रश्नों के उत्तर अधिकतम 100 शब्दों में लिखिए। प्रत्येक प्रश्न 6 (छः) अंकों का है।  
Question 2 Write the answers of any ten of the following questions in maximum 100 words. Each question carries 6 (Six) marks.

प्रश्न (2.1) भारत में राज्यपाल-पद के औचित्य व महत्त्व की समीक्षा कीजिए।

Examine the justification and significance of the post of Governor in India.

2 (B)

उत्तर :

Narmada Son Valley is a rift valley formed as a result of rifting and faulting in the Peninsular block at the time of Himalayan formation.

- o Location surrounded by Rewa-Panna Plateau, Bundelkhand plateau, Malwa plateau in North & Saucer-shaped range in the south.
- o Underlying rock - Deccan traps, Vindhyan & Cuddapah rocks.
- o soil type → The valley is covered by black soil.
- o ~~Dist~~ Climate, precipitation → monsoon type of climate with (100-120cm) average precipitation.
- o It is known for waterfalls like Bedaghat, ~~at~~ river valley projects like Tawa, Bargi, Bansagar.
- o crops → wheat, jowar, cotton etc.

(E)

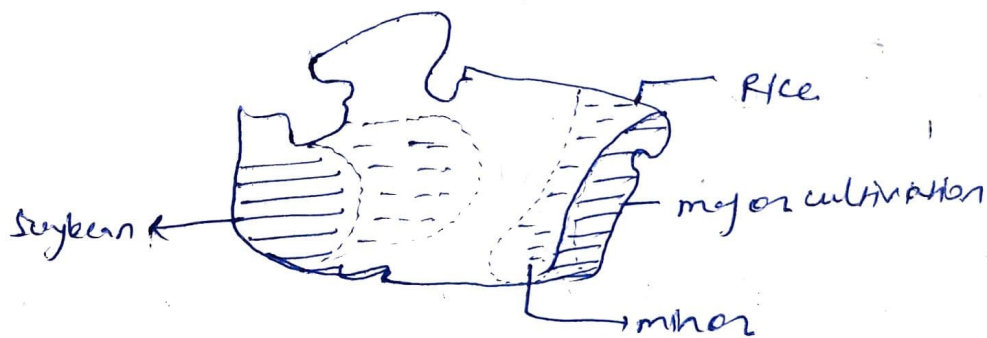
Soybean Cultivation

उत्तर :

- 1) MP is the largest producer of soybean, contributing more than 60% to total production in India.
- 2) In MP, Madhya region (especially Ujjain, Indore, Dhr) contribute maximum production.
- 3) Vidhyan region (Bhopal, Raipur, Sehore etc) also produce soybean
- 4) Cropping season - Soybean is grown as a kharif crop (summer-monsoon), in the black soil ~~later~~ under irrigated conditions, as well as rainfed conditions.

Rice Cultivation

→ Grown in regions of high rainfall (120-160cm) in the eastern part. Balaghat is the largest producer of Rice in MP. It is the 4<sup>th</sup> largest crop in terms of area.





(4)

उत्तर :

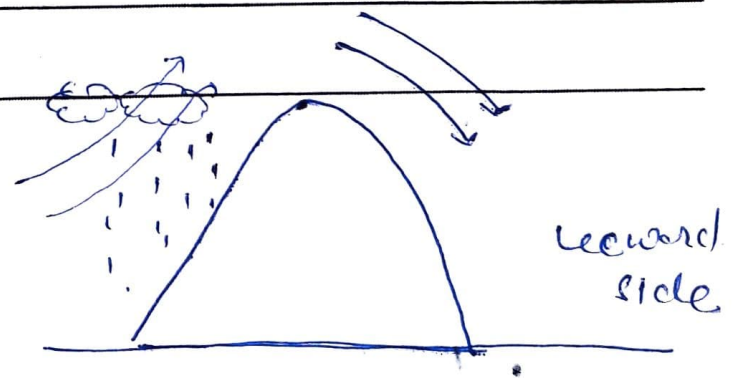
Relief Rain or Orographic rainfall is the characteristic feature of mountain region such as Western Ghats.

Mechanism

When moisture laden winds are forced to rise along a slope the water starts to condense & form clouds, the precipitation is received on the windward side.

When the winds descend in leeward side they are dry and hence arid / semi arid conditions prevail. e.g. some parts of Karnataka, TN.

- precipitation
- Condensation
- ↑
- Temperature decreases with altitude →



(I)

उत्तर : The 2004 Tsunami was the first major Tsunami experienced in India in contemporary period.

### Origin

- Tsunamis are very large waves produced due to displacement of huge amount of water in seas or oceans.
- It was a result of an earthquake along the boundary of Indo-Burma plate near Indonesia's Sumatra Island.

### Consequences/ effects

- It affected many littoral (of Indian Ocean) countries such as Bangladesh, Sri Lanka, Indonesia, Myanmar, India etc.
- Led to major loss of life, destruction of property, inundation of habitations, contamination of water sources, loss of livelihood.

### Measures taken

- A Regional Early warning system called RIWES was developed. At National level INCOIS was designated as nodal agency.
- Rehabilitation & Reconstruction was undertaken.

(7)

Intensive agriculture is the <sup>most</sup> common type of agriculture practiced in India especially in the ~~Tropic~~ a Northern plain region.

Characteristics

- 1) Land size is small and attempts are made to increase productivity & production.
- 2) Intensive input use such as fertilisers, Irrigation, Pest management.
- 3) It is labour intensive - mostly family labour or sometimes agricultural labourers are employed.
- 4) Low mechanisation and capital requirements are also low.
- 5) Limited use of modern technology.

 पाराजो

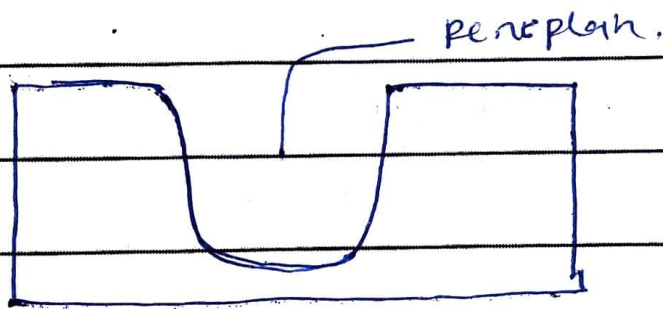
2 (A)

उत्तर :

Penuplains are types of plain regions that are

formed as a result of denudation by water & wind.

- Rivers erode the mountain, plateau regions through which they pass and form valleys, overtime these valleys are broadened and form a plain.
- Similarly in arid regions erosional action of wind lead to formation of plains



3(A)

◦ Soil erosion refers to the transport of ~~water~~ soil material by erosional agents like water and wind. Carrying away of ~~soil~~ top layer make the soil less productive and infertile.

The problem of soil erosion is quite prevalent in the Northern part of Madhya Pradesh drained by Chambal & its tributaries.

• High Erosibility of soil due to its sandy texture, monsoonal rainfall (concentrated in a short period), less of vegetation and the action of river water have led to creation of deep gullies or ravines.

The ~~disturb~~ districts of Bhind, morena, sheopur are worst affected.

Formation of ravines render the soil useless for vegetation and ~~to~~ lead to desertification.

### Remedial measures

Government has adopted various measures to reclaim the ravines and prevent further erosion.

- ⇒ Integrated watershed development
- ⇒ Afforestation programme
- ⇒ Green Ag Project - a CBF supported initiative

प्रश्न: (3.1) Continued (जारी)

### Way forward

- ① To prevent further erosion of gullies  
- gully plugging, ~~the~~ cover plantation,  
terracing, can be undertaken.
- ② Watershed management with community participation to reduce the surface run off.
- ③ Reclamation of ravines by converting them into grasslands, pastures and ~~also~~ adopting agro forestry & ~~the~~ social forestry on degraded land.
- ④ Adequate resources should be made available for management of soil ~~and~~ resources.
- ⑤ Creating awareness among local communities against ~~over~~ deforestation and knowledge about better land management practices.
- ⑥ Undertaking water harvesting to deal with dual challenge of soil erosion & water scarcity.

3(B)

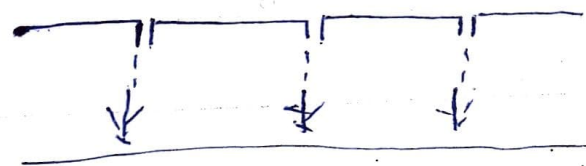
उत्तर :

Drip irrigation is a micro irrigation method in which irrigation is provided by means of nozzles fitted across the field that deliver water in drop by drop fashion.

Even though it is a modern technique a similar method

has been traditionally practiced

in meghalaya - Bamboo drip irrigation.



### Essential Features

- 1) ~~so~~ irrigation can be provide at surface or sub surface (under the soil) level.
- 2) Initial setup is capital intensive.
- 3) Good technological know-how is necessary to efficiently maintain & operate the system.
- 4) Frequent irrigation is required.

### Benefits of this method

- 1) High water/irrigation efficiency  $\rightarrow$  upto 70% efficiency can be achieved using drip irrigation.

## (3.2) Continued (जारी)

(2) Water Conservation

Irrigation / Agriculture is the largest <sup>sector</sup> consumer of water (ground as well as surface).

- (3) Prevents water logging, common feature of flood irrigation. and also prevents salinisation of soil.
- 4) Checks soil erosion and ~~retains~~ maintains soil ~~for~~ fertility.
- (5) This ~~is~~ method can also improve crop yield by ~30%.

Government initiative to promote ~~drop~~ micro irrigation.

- (1) PMKSY - for ~~drop~~ more crop.
- (2) Micro irrigation fund with NABARD.

Despite these measures the adoption has been slow due to high cost. Thus the capital ~~cost~~ ~~need~~ supports needs to be provided & technical know how needs to be improved.