

Geo - 3, 4, 5

प्रश्नोत्तर पुस्तिका / Page No. -03

SECTION - A

खंड - अ

प्रश्न 1.

इस प्रश्न में 15 अति लघुत्तरिय उप-प्रश्न हैं, प्रत्येक प्रश्न के उत्तर हेतु आदर्श शब्द सीमा 10 शब्द/ एक पंक्ति होगी। सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न 03 (तीन) अंकों का है।

Que. 1

This question contains 15 very short answer type sub-questions. Answer each question in ideal 10 words/one line. All questions are compulsory. Each question carries 03 (Three) Marks.

15x3=45

प्रश्न: (1.1)

पू./M = 03

उत्तर:

प्राप्तक

प्रश्न: (1.2)

पू./M = 03

उत्तर:

प्राप्तक

प्रश्न: (1.3) Sub tribes of Bhamia

पू./M = 03

उत्तर:

- Bhamia tribe is found in Jabalpur & Chhindwara region
- This tribe is particularly vulnerable tribal group.
- Subcaste - Brijwar, Makolia, Kadh, Nahar

प्राप्तक

प्रश्न: (1.4) Malajkhand

पू./M = 03

उत्तर:

- Malajkhand is the largest copper mine of India
- It is located in Balaghat district
- Extraction of copper from mine by Hindustan Copper Limited

प्राप्तक

प्रश्न: (1.5)

पू./M = 03

उत्तर:

प्राप्तक

SECTION - A

खंड-'अ'

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प्रश्न: (1.6) Dhuandhar waterfall

उत्तर: Dhuandhar is waterfall located in Jabalpur  
It is made by Narmada river  
It is known as Smoke of Thunder, Its height 30m

पू./M = 03

 प्राप्तक

प्रश्न: (1.7) CWC

उत्तर: Central Water Commission is a specialized organisation related to water & supporting to implementation of scheme related to water. It is formed in 1945

पू./M = 03

 प्राप्तक

प्रश्न: (1.8) BOD

उत्तर: • Biological oxygen demand is parameter to calculate the pollution in water. It is indicated in the amount of oxygen needs in mg in 1 liter of water

पू./M = 03

 प्राप्तक

प्रश्न: (1.9) Yas cyclone.

उत्तर: → Yas is a tropical cyclone in 2021  
→ Originate & hit Eastern Part of India  
→ Yas is named by Oman.

पू./M = 03

 प्राप्तक

प्रश्न: (1.10) Cartosat-3

उत्तर:

SECTION - A  
खंड - अ

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Que. 1

प्रश्न: (1.11)

GNOMAS

उत्तर:

2<sup>th</sup> abbreviation - Global Navigation Satellite System.  
2<sup>th</sup> is developed by Soviet Union in 1982.  
Glonass has 24 minimum Satellites, orbital height - 21150km

पू./M = 03

प्रश्न: (1.12)

NDMA

उत्तर:

National disaster management authority formed under NDMA Act 2005, NDMA is supervising & multiorganising body to combat natural & man made disasters

पू./M = 03

प्रश्न: (1.13)

Atal Bujel Yojna

उत्तर:

Atal Bujel Yojna objective to sustainable ground water management through various ongoing schemes  
It is a central sector scheme, to be implemented from 2020-25  
Priority Area MP, Raj, Haryana, Maharashtra

पू./M = 03

प्रश्न: (1.14)

Type of RS sat

उत्तर:

Types of Remote Sensing Satellites  
→ Communication Satellite  
→ Navigational Satellite  
→ Space Exploration satellite

पू./M = 03

प्रश्न: (1.15)

Dome of Jaisalmer

उत्तर:

पू./M = 03

प्रश्न 2

इस प्रश्न में 10 लघु उत्तरीय उप-प्रश्न हैं। प्रत्येक प्रश्न के उत्तर हेतु आदर्श शब्द सीमा 50 शब्द/5 से 6 पंक्तियों तक की है। सभी प्रश्न अनिवार्य हैं। प्रश्न में आंतरिक विकल्प भी हो सकता है। अभ्यर्थी जिस आंतरिक विकल्प का उत्तर देना चाहें, उसका स्पष्ट उल्लेख उत्तर के समक्ष अनिवार्यतः करें। प्रत्येक प्रश्न 5 (पाँच) अंकों का है।

Que.2

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प्रश्न: (2.1)

### Satpura Mountain Range

उत्तर:

- Satpura Mountain Range is located in Southern part of Madhya Pradesh. It is parallel to Vindhyan Range north of Tapi Graben & Narmada.
- It extended from East to West, as Rajpipla, Mahadeo & Maikal Range. It is Block Mountain.
- The highest point is Doodhghat (1350m) in Panchmari at Mahadeo Range & average elevation 500-600m.
- Bulandshah, Khundwa, Chhindwara, Seoni, Betul, Mandla are district in this region.

प्रश्न: (2.2)

### Climate of Vindhyan Mountain Range

उत्तर:

- Vindhyan Mountain Range is a chain of discontinuous mountain series which extend from West to East.
- It lies in tropical region and have monsoon type of climate, annually 100-150 cm of rainfall.
- It have normal hot & normal cold in Summer & Winter but in some place temperature reach to 42-47°C in Summer.
- In Rainy Season Precipitation is from South West & North East Monsoon. So enough water is available for Vindhyan Region forest which dense & cool.

प्रश्न: 2.  
Que. 2

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10x5=50

प्रश्न: (2.3)

Soil Erosion Effect

पू./म = 05

उत्तर:

Wear away of the top soil layer by the natural forces wind and water and also by anthropogenic activities.

The Effect of Soil Erosion on the Environment.

- Loss of fertility due to removing of layers
- Natural vegetation & forest/cover dries up.
- Frequency of flood & drought will be increased
- Air quality will be reduce by particle of soil
- River capacity to flow water will be reduce.
- Ground water level recharging stopped.

पू./म = 05

प्रश्न: (2.4)

Lime Stone

उत्तर:

→ Madhya Pradesh is a second largest producer of limestone

→ Gwalior, Meerseerpur, Satna, Rewa, Dammoh, Katni

Sagar are the major lime stone producing district

→ Lime stone production in M.P is increased

because of high demand in cement industry of M.P

→ Lime stone is a basic material in construction, chemical & metal industry, cement industry

→ Largest cement production in M.P

→ Katni is City of Lime Stone

सभी प्रश्नों का उत्तर लिखें।  
उसका स्पष्ट उल्लेख उत्तर के समक्ष अनिवार्यतः करें। प्रत्येक प्रश्न 5 (पांच) अंकों का है।

This question contains 10 short answer type sub-questions. Answer each question in ideal 50 words/5 to 60 words.  
All questions are compulsory. Internal choice can be given in the question. The candidate has to explicitly indicate the option chosen. Each question carries 5 (Five) marks.

प्रश्न: (2.5) Water management

उत्तर: Water is essential natural resource for life, and to sustain the living being & Environment. So water management is need to utilize it sustainably.

71% of the Earth surface contained water body & upto 60% of human body made up of water. but only 3% of water of Earth can be use for as a fresh water which is potable and safe to drink by man & animals.  
There are many government scheme by which we save and conserve water to avoid any hindrance

प्रश्न: (2.6) Reasons of impurity in water

उत्तर: By the disposal of wastage from industry, houses, hospital, agricultural wastage near water body. due to this many harmful material pollutes the freshwater.

- Mixing of sewage water to fresh water Pipelines.
- Throw wastage in fresh water bodies, eg. Lake, Pond, well.
- Not properly cleaning of water tanks.
- Presence of carbonates of Calcium and Magnesium
- Harmful Element - Mercury, Nitrate, Cadmium, Fluorides

By using a proper filtration process at home these impurities can minimize

पू./म = 0.5

प्राप्तिक

खंड 'अ'  
 प्रश्नोत्तर पुस्तिका/ Page No. -09  
 This question contains 10 short answer type sub-questions. Answer each question in ideal 50 words/5 to 6 पंक्तियाँ होंगी।  
 All questions are compulsory. Internal choice can be given in the question. The candidate has to explicitly  
 indicate the option chosen. Each question carries 5 (Five) marks. 10x5=50

प्रश्न: (2.7)

### Community Planning in DM

उत्तर:

Community Based Disaster Management (CBDM) is a method  
in which at Risk community are actively engaged in  
Relief work to minimize the vulnerability of disaster  
It covers Preparedness, Prevention, Mitigation, Response, Res  
The government cannot able to manage the disaster  
with its resources, so the really community involvement  
is necessary to reduce the risk of disaster  
Community have best know the vulnerable region &  
people and safe places, Roads help in Rescue operat

प्रश्न: (2.8)

### Remote Sensing

उत्तर:

Remote Sensing is a process of Recording, observing,  
upervising (Sensing) object which is at remote location  
by the identification control from Aircraft, Satellite etc.  
Target -> It is a object or body to be study  
Component in -> Energy source -> It act as medium to Exchange information  
Remote Sensing -> Path -> It is a Path of traveling Rays  
Sensor -> It Extract all information & interpretation

In Modern era Remote Sensing is utilize in many field  
Such as Geology, Forest department, Defense, Aircrafts

SECTION - A  
खंड - 'अ'

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प्रश्न: 2.  
Que.2

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प्रश्न: (2.9)

Types of Satellite on the basis of Utility

उत्तर:

Each satellite have their specific role in space,

there are few satellite and their importance.

- Navigation satellite → This is use to positioning of object any where on earth. eg → GLONASS, IRNSS
- Remote Sensing satellite → It provide information related to changes in environment, forest etc. They are Observing satellite eg → Indian Remote Sensing satellite, Cartosat
- University satellite → It is develop by the students
- Space Exploration satellite → They are probe sending picture and data.

प्रश्न: (2.10)

GIS Tech

पू./म = 05

उत्तर:

Global information system (GIS) use computer based technology which capture, store, analyze & display the spatial and non spatial data which is use in planning and development projects.

- Component of GIS → Hardware → Computers and accessories
- Software → Analysis of captured data
  - Data → It is capture by sensors and analyze by software in useful format
  - People → The persons involve in GIS
  - Methods → It is a sequence of process adopt by staff.



प्रश्न: (3.1) Malwa Plateau in detail

पृ./म - 11



उत्तर: Malwa Plateau is a part of Central Upland in  
Madhya Pradesh.

It is located in Central  
Western region of India.

→ Area 29% of MP

→ District → Bhopal, Raipur, Jabalpur,  
Jhabua, Dhar, Guna, Raigarh

→ Highest Peak → Siyah 887m

→ Soil → Black, it is extension of Deccan Plateau

→ Climate → Tropical Monsoon receive 100-125 cm of rain

→ Crops → Soyabean, wheat, Groundnut, Cotton etc

→ These are some features of Malwa Plateau

in northern part there is Ganga-Yamuna Plain

In South there is Narmada Valley

In western side bounded by Aravali and

in Eastern side by Rewa-Panna & Baghelkhand

Plateau.

Tropic of Cancer ( $23^{\circ}5'N$ ) passes through

Malwa Plateau and divide in two equal

parts Bhopal, Ujjain are major cities.

MP is known as Soyabean State because

SECTION - 'A'

खंड - 'अ'

प्रश्न: 3. इस प्रश्न में 05 दीर्घ उत्तरीय उप-प्रश्न हैं। प्रत्येक प्रश्न के उत्तर हेतु आदर्श शब्द सीमा 200 शब्द है। सभी प्रश्न अनिवार्य हैं। प्रश्न में आंतरिक विकल्प भी हो सकता है। अभ्यर्थी जिस आंतरिक विकल्प का उत्तर दे रहे हैं उसका स्पष्ट उत्तर के समक्ष अनिवार्यतः करें। प्रत्येक प्रश्न 11 (ग्यारह) अंकों का है।

Que: 3. This question contains 05 long answer type sub-questions. Answer each question in ideal 200 words. All questions are compulsory. Internal choice can be given in the question. The candidate has to explicitly indicate the option chosen. Each question carries 11 (eleven) marks.

प्रश्न: (3.1) Continued (जारी)

malwa plateau produce highest of India Soyabean.  
 Black Soil presence create favourable condition  
 to grow Cotton and Groundnut. It have  
 good water absorption capacity.  
 Bhopal - Ujjain - Dewas - Pithampur Indore are  
 the Major Industrial center availability of  
 water resources, labour, transportation made  
 easy to setup the Industries  
 Cotton, textile, Automobile, Pharma industries  
 are located on Malwa plateau  
 Ujjain, Bhimbetka of Raizer, Valmiki cave  
 of Vidisha, Fort of Mandu, Chanderi Ashok nagar  
 are major historical, tourist and  
 pilgrimage site on this plateau  
 Major rivers of India such as  
 Chambal, Parvati, Sindh, Betwa, Ken,  
 Shipra, Kali Sindh and also hydro  
 Electric project are located on this Plateau  
 Chambal is the major river of this Plateau  
 These river flow northward because Southern  
 portion is relatively higher as compared to  
 Northern part.

QUESTION - 'A'  
खंड - 'अ'  
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SX11-59

पृ./M = 11

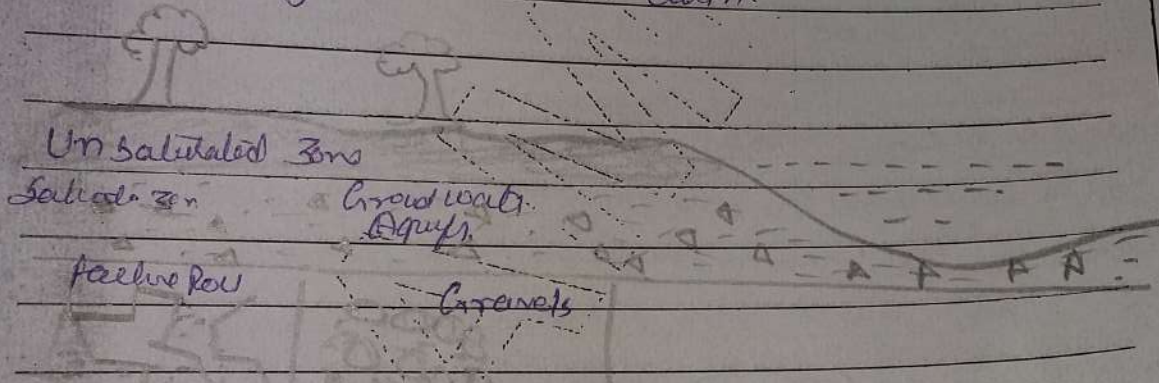
प्रश्न संख्या

प्रश्न: (3.2)

### Ground Water

उत्तर:

Ground water is the largest source of freshwater which is use by humans for consuming. Water inside the Earth surface is present in the cracks and spaces of rocks and sands. These permeable rocks called Aquifers. Aquifers move slowly inside the earth.



Un saturated zone

Saturated zone

Ground water Aquifer

Caprock

Caverns

Rock zone

### Different Zones in Storage of Ground Water

- 1) Un saturated Zone - In this zone water from surface is absorbed and passage to Saturated zone. Small sand rocks, particle uses as filter for water.
- 2) Saturated zone - In this water from Earth surface is stored in Aquifers which is use for Extraction.
- 3) Rock flow zone - The upper part of lithosphere.

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प्रश्न 3

Que. 3

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(3.2) Continued (जारी)

where the small cracks & spaces are available in which this ground water is stored

Q.

Sources of Ground water → Well → It is a large hollow structure dug into Earth. Where ground water is collected  
 → Tubewell → It is a mechanism to pump out ground water by using digging of pipes  
 → Eyezer → It is natural natural, pressurized hot water inside Earth near by Volcanic region

Extraction of Ground water:- The availability of water inside Earth is depend on region and Geological condition. Usually by penetration of 30-35m and 10-30cm of pipe inside Earth which easily penetrate large depths and by using pump can use water.

Ground water is largest single source of fresh water, but due to Unsustainable Extraction and Use the availability of deep water reduce and if water which is extracted is getting contaminated & polluted. So it responsibility of citizen to save ground water, by following the government guidelines to avoid major threat & availability of water.

प्रश्न 3. This question contains 05 long answer type sub-questions. Answer each question in ideal 200 words. All questions are compulsory. Internal choice can be given in the question. The candidate has to explicitly indicate the option choosen. Each question carries 11 (eleven) marks.

5x11=55

पू./म = 11



प्रश्न: (3.3) Distribution type & use of metallic Mineral in MP

उत्तर: Metals are the natural resources which are good conductors of heat and electricity. Malleability, ductility, etc. are the properties of metals. They are not directly found. They present in the impure form known as ore. After passing through refining and purification it can utilize. Metals are also divided in ferrous & Non ferrous.

Iron containing element are ferrous & others which not have iron content are non ferrous.

Major Minerals found in Madhya Pradesh are:-  
Copper, Barusite, Lead, Iron, Magnese, Tungsten, Gold.

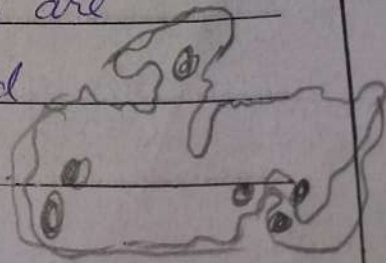
Distribution of metallic mineral in M.P.:-

1) Iron:- Hematite, Magnetite, Limonite are the ore of iron. M.P. produce good

quality of ores which contain 67% of iron.

Iron ore found in state of M.P. in Dhat

Jhalawar (ujain (Malwa region), Shirsprui, Mandla, Balaghat.



Iron distribution

प्रश्न: 3.

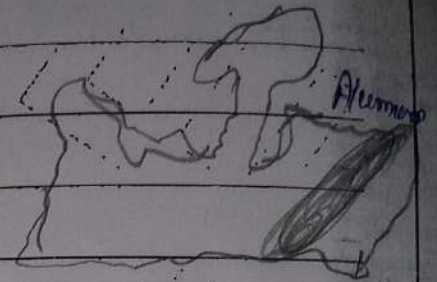
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प्रश्न: (3.3) Continued (जारी)

Bauxite → It is a ore of Aluminium  
It is lightweight metal use in aircraft,  
Automobile etc. It is highly found in  
Deccan trap & Eastern M.P

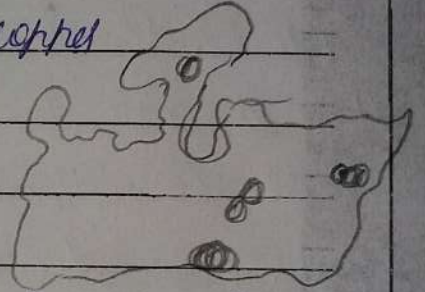


Rewa, Satana, Katni, Jabalpur, Mandla, Bilaspur, Shakti  
M.P is in 5<sup>th</sup> in production among all states.

Copper:- M.P is the largest producer of copper  
in India - it account for 20-25%  
of whole copper production. It is

found in Anwar, Jabalpur, Balaghat

Sidhi Singrauli, Balaghat Malajhand is the largest  
open mine in M.P is taken by Hindustan Copper Ltd.



Magnese:- It is found in Balaghat & Chhindwara region

Bhadrachal (Balaghat) is the largest Magnese mine in India.

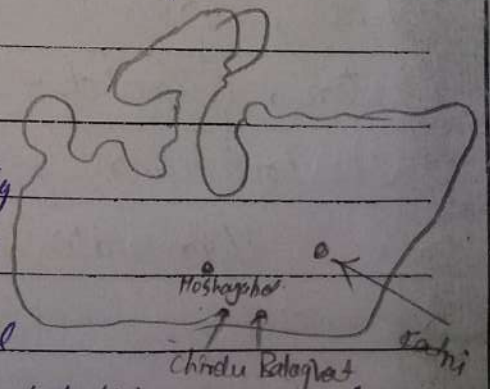
Gold:- In Katni region small amount of Gold found.

Tungsten:- Wolframite is ore. It is found in  
Hoshangabad (Agalgaon)

Presence of Industries are the  
reason of boost in economy, Industry  
are depend on the proper supply of  
raw material. M.P is largest source

& reserve of Metallic and Non Metallic mineral.

By Extracting Sustainability helps in Economic development



है। प्रश्न में आंतरिक विकल्प भी हो सकता है। अभ्यर्थी जिस आंतरिक विकल्प का उत्तर दे रहे हैं उसका स्पष्ट उल्लेख उत्तर के समक्ष अनिवार्यतः करें। प्रत्येक प्रश्न 11 (ग्यारह) अंकों का है।

This question contains 05 long answer type sub-questions. Answer each question in ideal 200 words. All questions are compulsory. Internal choice can be given in the question. The candidate has to explicitly indicate the option chosen. Each question carries 11 (eleven) marks.

5x11=55

प्रश्न: (3.4) Natural Disaster, Contribution of human action in the natural disaster.

प्र.म = 11



उत्तर: Natural disaster are hazardous event causes due to the geological or meteorological activities which damages the region of event and may be loss of life and also effect environment and ecology

Examples - Floods, Earthquake, Cyclone, Tsunami etc

Mainly the reason of these disaster are nature but in modern life cycle development, industrialization, urbanization highly impacted, the natural which triggered the risk of disaster

There are some anthropogenic activities which induced natural disaster :-

1) Earthquake - Earthquake is a shaking or vibration of Earth surface. it is generally happen when there is movement, collapse, destruction in tectonic plates inside earth but, Mining Unsustainably without using planning and modern technology.

• Construction of dam which imbalanced the earth surface,

• Creation of cave, passes, Road by using

प्रश्न: 3  
 इस प्रश्न में 05 दीर्घ उत्तरीय उप-प्रश्न हैं। प्रत्येक प्रश्न के उत्तर 200 शब्दों में हो सकते हैं। प्रश्न में आंतरिक विकल्प भी हो सकता है। अभ्यर्थी जिस आंतरिक विकल्प का उत्तर देना चाहें उसे ही चुन सकते हैं। प्रत्येक प्रश्न 11 (ग्यारह) अंकों का है।  
 This question contains 05 long answer type sub-questions. Answer each question in ideal 200 words. All questions are compulsory. Internal choice can be given in the question. The candidate has to explicitly indicate the option chosen. Each question carries 11 (eleven) marks.

प्रश्न: (3.4) Continued (जारी)

Explosion, they induced earthquake which may convert in disasters.

2) Landslide :- Urbanisation, construction of dam, hydroelectric power plant are the main reasons for sliding of land in Himalayan region.

3) Floods and drought :- Cutting of forest, soil erosion, dam construction, global warming, climate change these are the factors which delay the rain which leads drought condition, broken of wall of dam leads flood in nearby areas.

4) Forest fire :- Generally forest fire happens due to the rubbing of trees to one another, but it also induced when humans throw a match sticks, cigarettes, light candle, firecracker in forest area, while they are residing in house in forest, Trekking, Camping, Tourism.

5) Cyclone - It effect coastal region and destruct the whole area drastically, deforestation, damage of lakes, wetlands, mangrove forest these are main reason for cyclone to easily hit the region. For these disasters human recklessness are the main reason. We can develop the global countries by sustainably using resource by following Government regulation.



उत्तर के समक्ष आंतरिक विकल्प भी हो सकता है। प्रत्येक प्रश्न के उत्तर हेतु आदर्श शब्द सीमा 200 शब्द है। सभी प्रश्न अनिवार्य  
This question contains 05 long answer type sub-questions. Answer each question in ideal 200 words. All  
questions are compulsory. Internal choice can be given in the question. The candidate has to explicitly indicate  
the option chosen. Each question carries 11 (eleven) marks.

5x11=55

पू./म = 11

प्रश्न

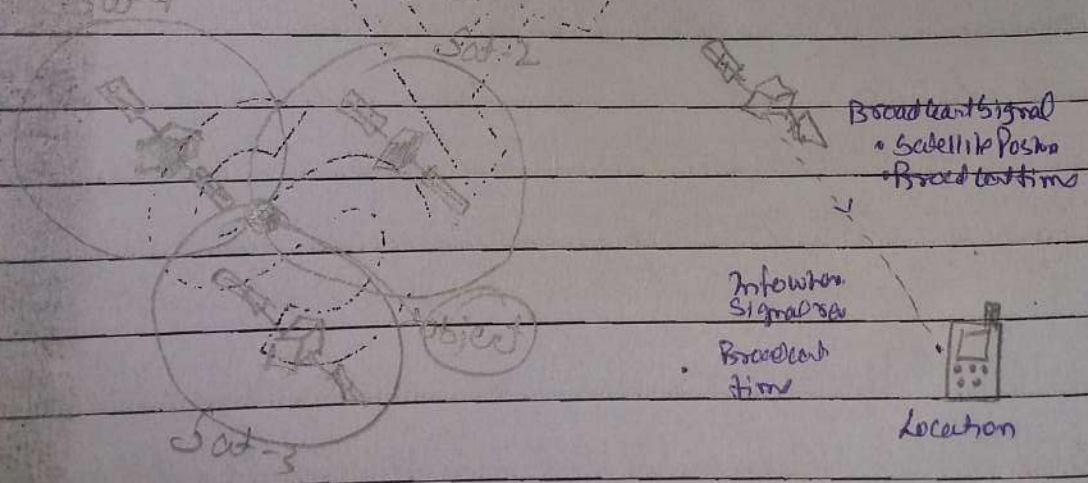
प्रश्न: (3.5) GPS

उत्तर:

Global Positioning System (GPS) is a satellite based navigation system that can be used to locate position of mass on any where on earth.

GPS is US Defence department system which is used by defence of US. But its limited functions is open to other countries

GPS takes information transmitted from the satellite and uses triangulation to calculate a user's exact location.



प्रश्न: 3.

इस प्रश्न में 05 दीर्घ उत्तरीय उप-प्रश्न हैं। प्रत्येक प्रश्न के उत्तर हेतु आदर्श शब्द सीमा 200 शब्द है। सभी प्रश्न अनिवार्य हैं। प्रश्न में आंतरिक विकल्प भी हो सकता है। अभ्यर्थी जिस आंतरिक विकल्प का उत्तर दे रहे हैं उसका स्पष्ट उल्लेख उत्तर के समक्ष अनिवार्यतः करें। प्रत्येक प्रश्न 11 (ग्यारह) अंकों का है।

Que: 3.

This question contains 05 long answer type sub-questions. Answer each question in ideal 200 words. All questions are compulsory. Internal choice can be given in the question. The candidate has to explicitly indicate the option chosen. Each question carries 11 (eleven) marks.

प्रश्न: (3.5) Continued (जारी)

Workings \* There are at least 4 satellite in the line of a receiver on earth.

- The transmitter GPS sends information to receiver about position and time at fixed interval of time.

- The difference between the time when radio waves are sent from satellite to receiver, calculate the distance between them.

- By trilateration process, the receiver receives the signal from 3 satellites which locate the location by intersections of waves.

Uses and applications

→ GPS is widely used in mobile phones to find locations, tracking, timing, mapping and many other are uses of GPS.

→ Transportation, Defence, Navigation of ships, Aviation, Robotics, Finance services, Mapping, Geo-fencing, Automobile Security are the wide applications of GPS.

Satellites of Navigation

GALILEO of Europe, GLONASS of Russia, Bei Dou of China and IRNSS of India also known as NAVIC.

Literally GPS is an essential tool for development of Global Infrastructure and Revolutionary Technology.