

Kautilya online test series

test number 4

Subject - Paper - I Part B unit 7, 8, 9, 10

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# 1

Q. A

Answer

Q. B

Answer - Agricultural Density is number of people doing ~~crop~~ farming on ~~the net sultivable~~ land most commonly used unit Acre, sq. km; formula  $\Rightarrow \frac{\text{Number of farmer}}{\text{Total arable Land}}$

Q. C

Answer - Transhumance is a method of ~~pasturing~~ <sup>grazing</sup> animals like goat, sheep, cow.  
In it animals are at highlands like mountains in summer and lowland in winter

Q. D MAJULI

Ans - It is a island situated at Assam on river Brahmaputra river

- It is the biggest riverine island of the world
- formed due to deposition of sediments by river.

Q. E

Ans - It was formed in 1962

- It deals with allocation, maintenance of mineral mines
- Headquarters - Shopal

Q. F

Ans - It is found in Bundelkhand and Western malwa region.



Q. G

Answer - closepet series is a rock series situated at the southern region of MP at Balaghat and chindwara

→ It is a Dharwad rock series so, it is rich in metallic minerals.

Q. H

Answer → Maan project is built on maan river in Dhar district of MP

→ It was dam built for irrigation purposes

Q. I

Answer → Arsenic is a metalloid

→ Water from very deep tubewells got contaminated from it

→ It is harmful because it causes mental and physical disorders

Q. J

Answer → full form of NDRF is National disaster response force

→ It was founded in 2006 as a measure of Sonami

→ It is 'Apex body for disaster management in India'

Q. K

Ans →

Q. L

Ans → It is a irrigation technique based on the principle of economical use of water

→ Equipments like mini sprinkler, drip lines, etc are used in it

→ Government provide subsidy for it under 'Per drop - more crop scheme'



Q. M

Q. N

Answer → LIDAR stands for "Light detection and ranging"  
→ it is used for determining distance by targeting  
object with laser ~~and~~  
→ Used in ocean and Earth surface surveys etc.

Q. O

Answer - ~~HEO's full form is Higher earth orbit~~

①  
②③④

PS



Q 2 A

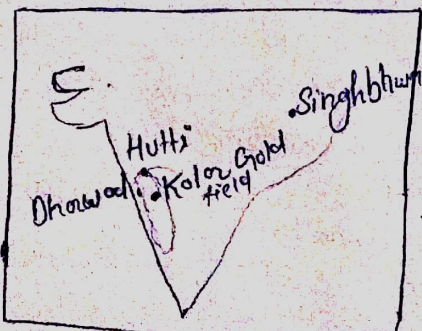
Answer → Indian Diaspora is a group of people that themselves or their ancestors once resided in India but now living in different parts of the world. This people migrated from India due to different reasons and on different times in form of waves, the Major waves of migration of India diaspora are

- (1) During colonial times British and French sent a large number of unskilled workers to their other colonies like South Africa, America, East Indies
- (2) 2<sup>nd</sup> wave of migrants out of India was of semi skilled labourers and factory workers during the oil boom in West Asia to countries like Kuwait, UAE.
- (3) Last and very recent wave was of Professionals like Doctors, IT workers etc. they migrated towards the western countries

Therefore, Indian diaspora is largest in the world and it is important for the economy of the country because India receives most amount of remittance in the world, which they send to their native places.

Q. 2 B

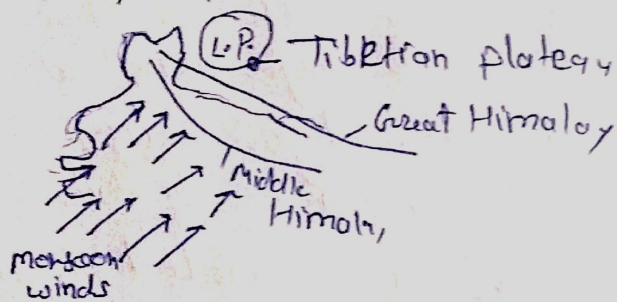
Answer → Gold is one of the most precious metal on the Earth and it is still considered as wealth storage metal. India is one of the biggest exporters of gold although India has some gold producing regions in the Deccan trap series which is famous for metallic minerals



- Major Gold reserves of India is in state of Karnataka, Jharkhand, Bihar, Rajasthan
- Kolar gold mines produce 30% of India's gold.
- other famous gold mines are Hatti, Dhawad, Singhbhum etc.



Ans - Tibetan plateau is one of the highest land masses on the earth, it is situated on the north of the Himalayas. It extends to an ~~extent~~ like India, China, Nepal



# Effect on Indian monsoon

→ In the month of June July when sun was on its northern most position

Tibetan plateau receive a large amount of insolation and gets heated, this heated plateau create a low pressure zone on it

→ as we know air move from high pressure to low pressure so it ~~not~~ attract the wind from high pressure marine equatorial area towards Indian subcontinent due to which it ~~receives~~ Indian monsoon intensifies and give ample amount of rain.

Q. 2  
"D"

Ans - Particular vulnerable tribal groups tribes that are very backward in ~~its~~ their outlook and have little or no connection with outside world, Example - Sahariya, Baiga.

→ There are 4 Major criteria on basis of which they are identified

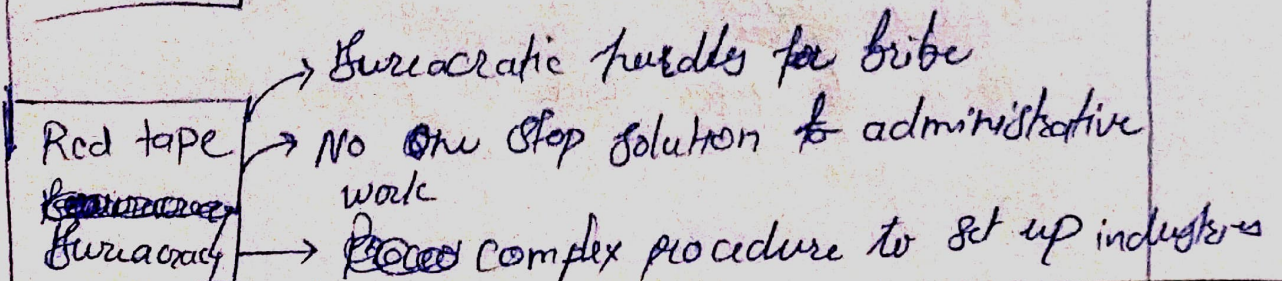
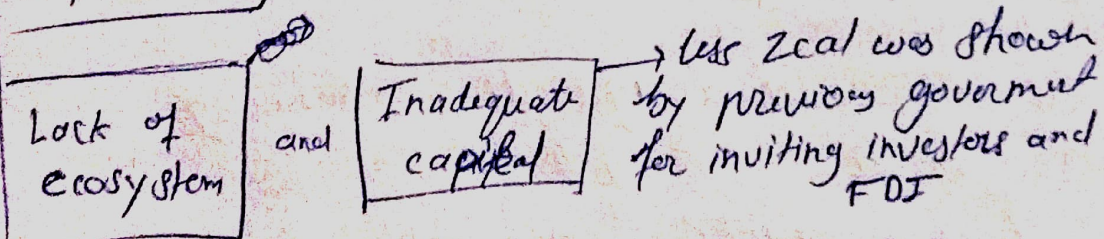
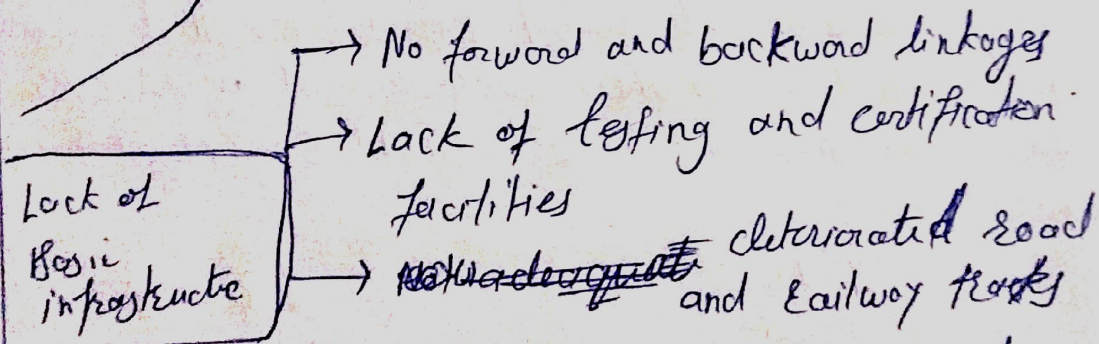
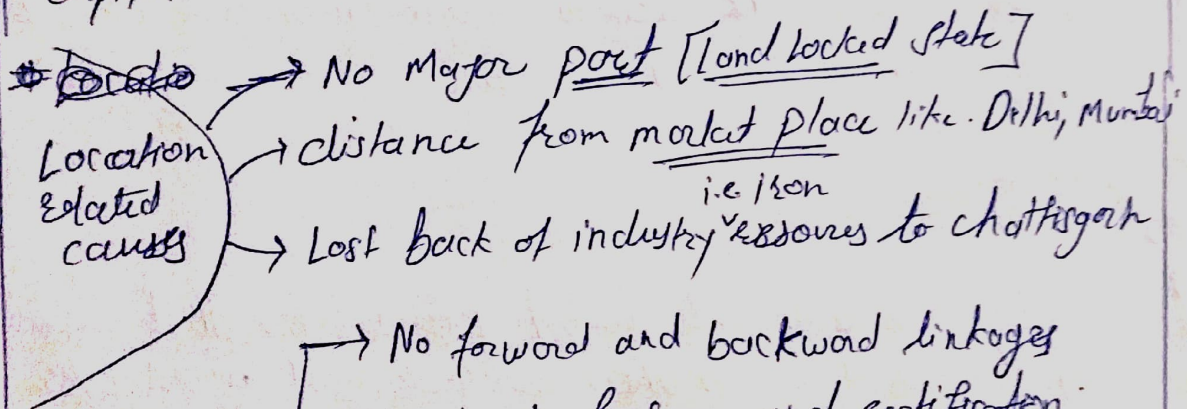
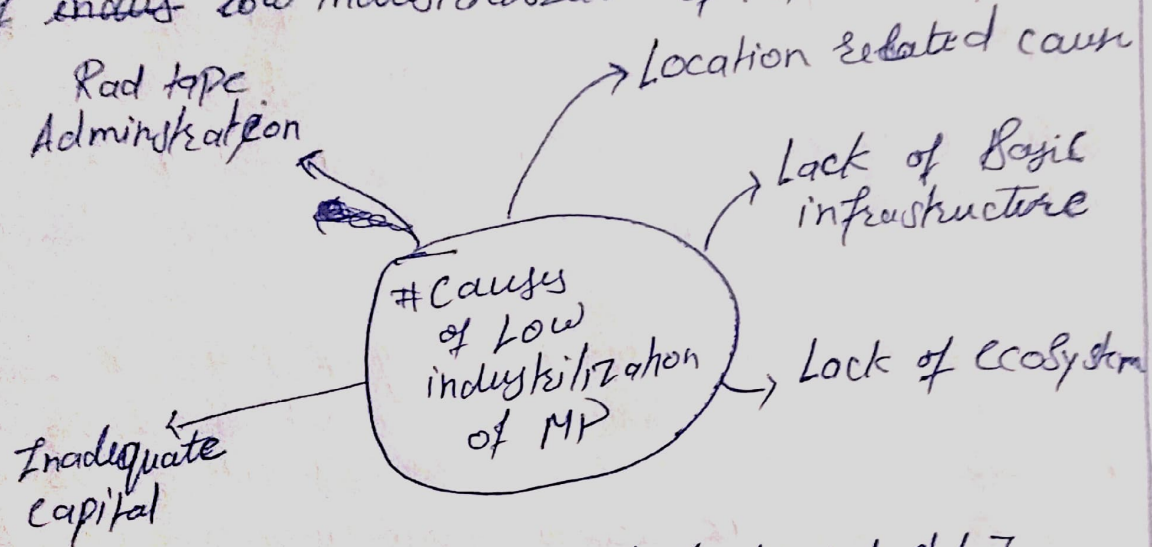
- ① low level of Agricultural technology
- ② Very low literacy rate
- ③ lives in backward and remote areas
- ④ have declining or stable population




Q. 2  
E

Answer

Madhya Pradesh have huge potential in industrialization due to its vast natural resources and available human resources but even after it Madhya Pradesh is not quite up there with major industrial states like Orissa, Maharashtra etc. Major causes of ~~indus~~ low industrialization of MP are as follow






Q. 2   
Answer

Man made disasters are the event of destruction taken place directly due to anthropogenic activities for Example - chemical and industrial disasters, stampedes, nuclear disaster etc, these disasters can be avoided by

- Strict compliance with legislation like Water Pollution Act 1974 and Environment Protection Act of 1986 by industries ~~and~~
- Classification and proper disposal of waste by nuclear reactors and medical research institute
- Robust and AI controlled crowd management system at huge crowd gatherings
- ~~Start~~ development activities on the lines of sustainable development without altering the major fabric of ecosystem.
- Regular and proper maintenance of the machinery used in industries

Q. 2 

Answer - Problems with Current water management system in India are as follow

- Regional diversity in water availability
- Increasing load on Ground water due to ever increasing population
- ~~unequal India has~~ Pollution in open water sources
- Eutrophication of lakes making them polluted and not suitable for drinking
- Lack of infrastructure for recycling of waste water
- Increasing demand of water for irrigation that already use 92% of ground water
- ~~A~~ major problem with water management in India is that it has 16% of world population but has only 4% of world fresh water resource



Q.2 [H]

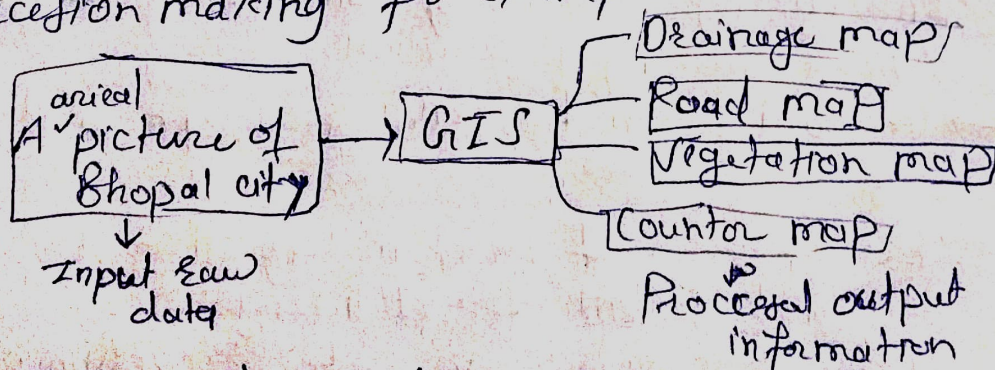
Remote sensing - It is a technology of gathering information about a object or phenomenon without physical contact by using Electromagnetic radiations generally. It has major application in field of Agriculture like

- Identification of crop types, damage for the insurance and planning purposes
- It helps in classification of soil types and its moisture and nutrient content and help in preparing fertilizer recommendation map
- to solve farm boundary disputes using remote sensing under PM Swamitva scheme
- To assess the damage to crop by using flood impact assessment by Remote sensing

Q.3 [I]

GIS - Global information system is a computer based technology for accessing, manipulating, Processing, altering spatial and non spatial data to get ~~the~~ information in required digital map forms

main purpose of GIS is use data feeded to it in raw data form ~~to~~ to convert it into information that can help in planning and decision making for example



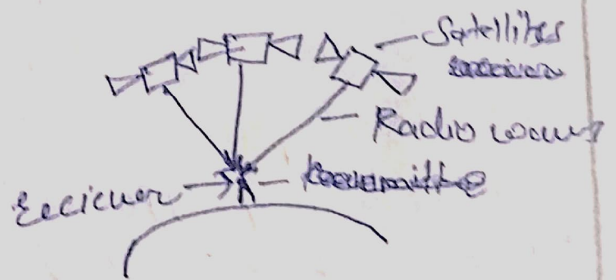
- Now Municipal corporation or local state planner can use this data for their decision making procedure
- Like this GIS has its application in varied fields like - Agriculture, disaster management, town planning, Environmental upgradation etc.



## Working of GPS

Ans. → Full form of GPS is global positioning system  
→ It is a technology that is based on the constellation of satellites in medium earth orbit to provide information about the timing and positioning

→ Working of GPS



① Transmitter fitted on satellite send a radio wave signal to the receiver at the earth

② Receiver after receiving signal calculate the time taken by signal to reach earth surface and finds out distance between them

③ Same procedure takes place with other satellites too to get the positioning of the ~~satellite~~ and timing of receiver

④ minimum 3 satellites are required to know 2 Dimensional location of receiver and 4 for 3 Dimensional location

⑤ GPS use principal of Triangulation for determining location.

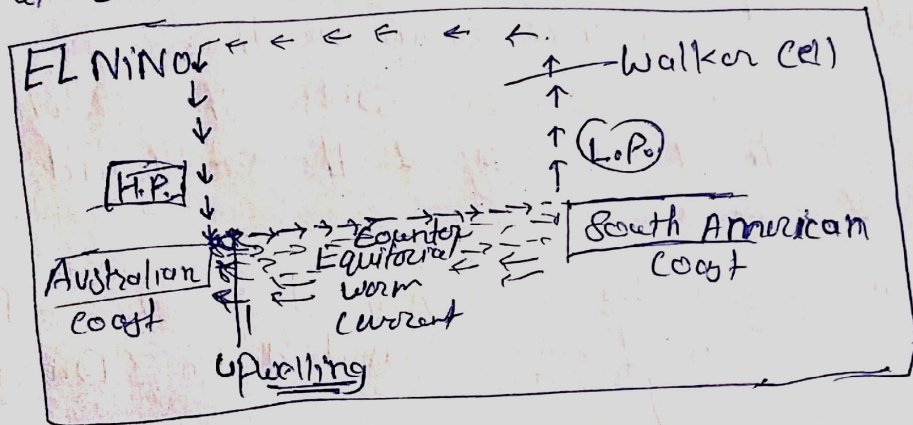


Q. 3A

El Niño - It is a regional weather phenomenon taking place in the southern Pacific ocean between the eastern coast of Australia and western coast of South American continent

→ In general condition warm ocean current takes place on the eastern coast of Australia creating a low pressure condition on the surface and high pressure condition and upwelling on western coast of South America

→ but, during El Niño year there is a reversal of pressure condition in the Walker cell between Australia and Chile Peru coast

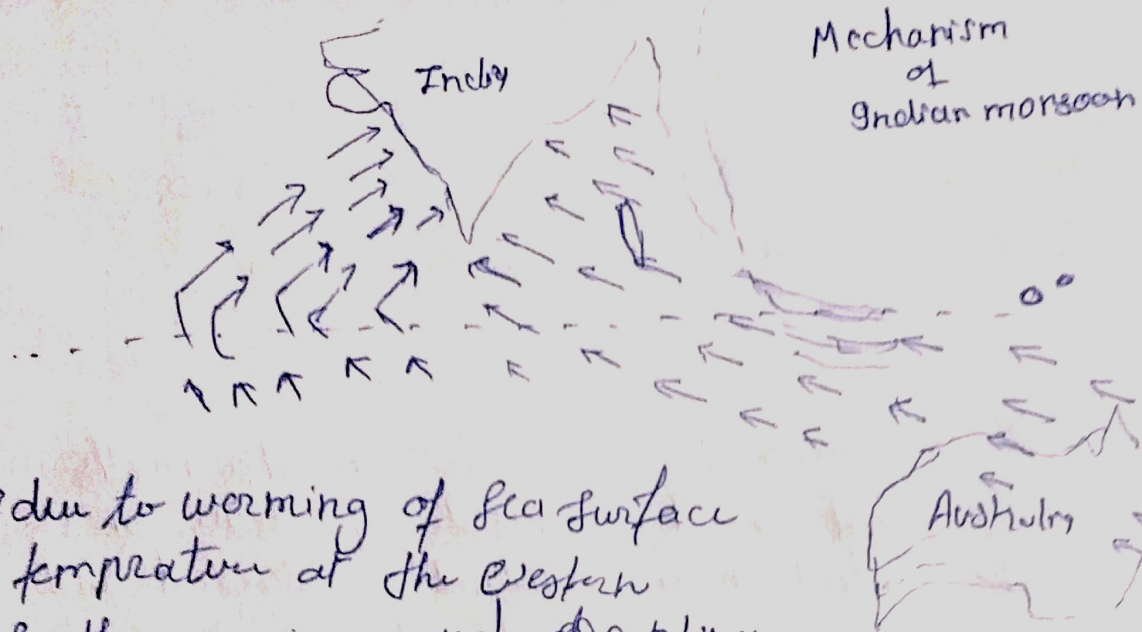


→ ~~due to absence of~~

→ In EL Niño condition due to absence of trade winds a counter equatorial current starts flowing in the direction of South America - can coast forming low pressure conditions and due to this a High pressure zone developed over the eastern coast of Australia.

Indian monsoon winds which are basically the trade winds of Southern hemisphere which change their path after crossing the equator towards Indian ocean during summer due to intense low pressure





→ due to warming of sea surface temperature at the western south america and cooling of water temperature at eastern coast of Australia intensification of low pressure zone doesn't take place in the india ocean and this severely affect the intensity of Indian south west monsoon

→ As India receive rainfall only during the summer season ~~it severely~~ it severely affect the Indian crop system and create condition of draught in subcontinent region especially rainshadow area of North west and north east

→ With increasing ~~incidence~~ global warming frequency of El-nino years is also increasing and it severely impacting the normal functional life and economy of India therefore, various stake holders like UN, national government, NGOs citizens has to come together and chalk out plans and ~~comp~~ ensure compliance of existing plans to fight climate change to reduce El-nino instances



Q.2-F

~~Man-made disaster or event of destruction of the functional lifestyle of~~

Q.3 [B]

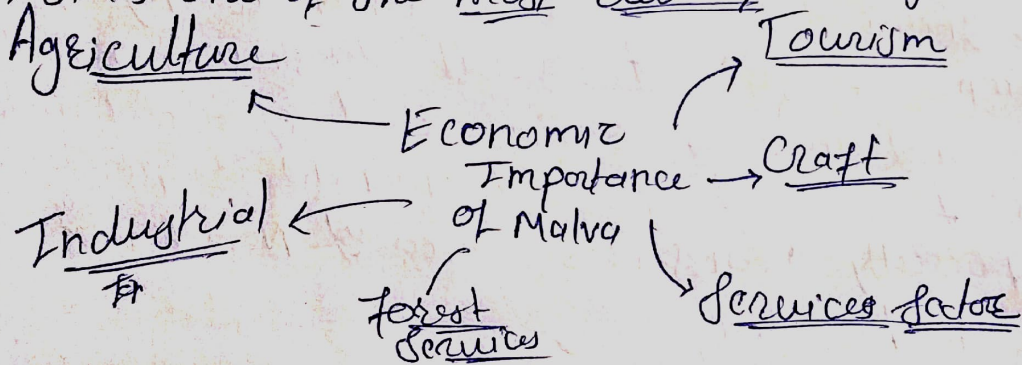
Answer

Malwa Plateau → It is situated on the north-western part of the peninsular plateau, in its north-central Indian highland is situated and on it north are basaltic Deccan trap.

→ This region consist of districts of Dhar, Bhopal, Ujjain, Indore, Sotom, Dewas etc

→ It is ~~volcanic~~ made of up igneous (lava) rock which over the eroded and got converted into Black soil

→ It is one of the most developed region of MP



### # Agriculture

→ black regur soil is found in malwa plateau ~~due to~~ which has high water retention capacity ~~and due to~~ which this region is leader in production of cash crops like Coffan, Groundnut, ~~and~~ Opium etc.

→ Malwa region is largest producer of oil seed crop of Soyabean

### # Tourism

→ Malwa region has a diverse and ample various cities having tourism potential like



• Ujjain → attract huge number of religious tourists especially during 'Kumbh' festival

• Mondu → Jahaj mahal, Rani Supmati mahal, Jamy masjid are major tourist attractions

## # Industrial

→ Pithampur situated near Indore is a special economic zone and home to production units of various large industries

→ Indore also called economic capital is also situated in malwa

## # Service Sector

→ Indore has a 'IT Park' which is developing as a hub for service sector and provide huge employment opportunities.

## # Craft

→ Hand made printed scarfs, sarees and dresses of Ragh print are world famous and have a huge potential for exporting

→ Bandhani printing and Lac work of Ujjain also contribute to economy of malwa

## # Forest Services

→ As malwa has a huge number of tribal residing there due to which forest economy of malwa is very much important and people generate a large sum by trading of minor forest product such as tendu patta, Sambo, Lac

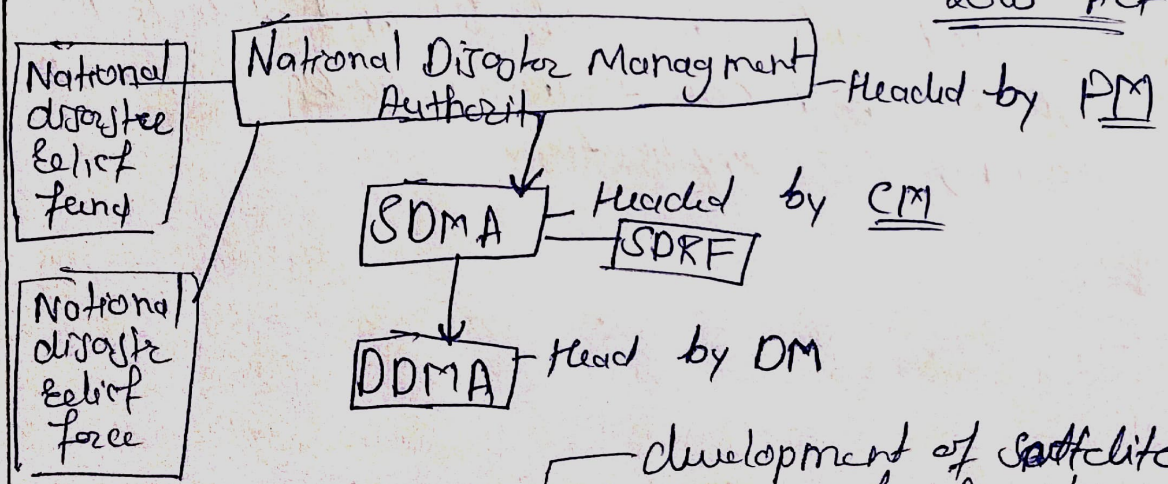
therefore, Malwa plateau contribution in economic development of madhya pradesh is very important and it still have a huge potential undiscovered which can be unlocked by ~~off~~ combined efforts of all the stakeholders such as Government, community and industries.



Answer # Disaster management - It is a continuous process of managing, planning, organizing and implementing ~~relief~~ measures for mitigation prevention, relief, preparedness, rescue during after and before the disaster takes place

# India started developing disaster management system after being severely hit by TSUNAMI in 2004, which resulted in 18,000 deaths as a result indian government came up with the apex legislation dealing with disaster management in India i.e. "Disaster management act 2005" which provided elaborated hierarchy and system of disaster management in India

Administrative # Disaster management system of India according to 2005 Act



# Other measures

- development of satellite network for forecasting
- Early warning system for cyclone under CDMIS
- Capacity building for mitigation and preparedness for disaster
- development of infrastructure in disaster prone areas like safe house, health center etc.

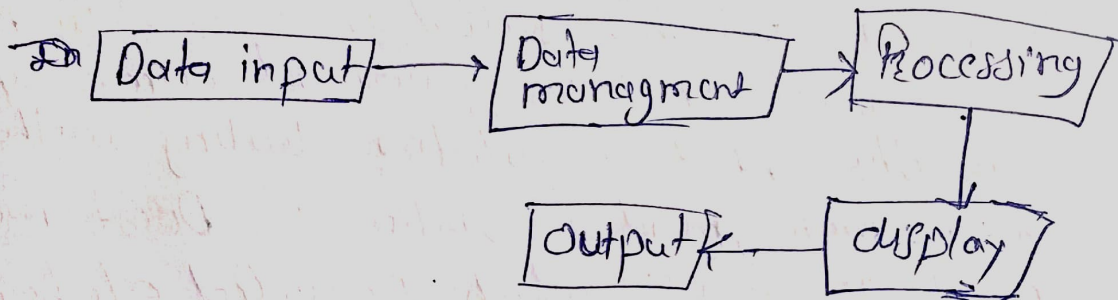


In the GIS software, this data is of two types

- ① Data — [ Geographical / Spatial data  
          [ Attributed / tabular / Non spatial data

### # Methods

It is a well designed plan or standard operating procedure to be followed during the process of GIS



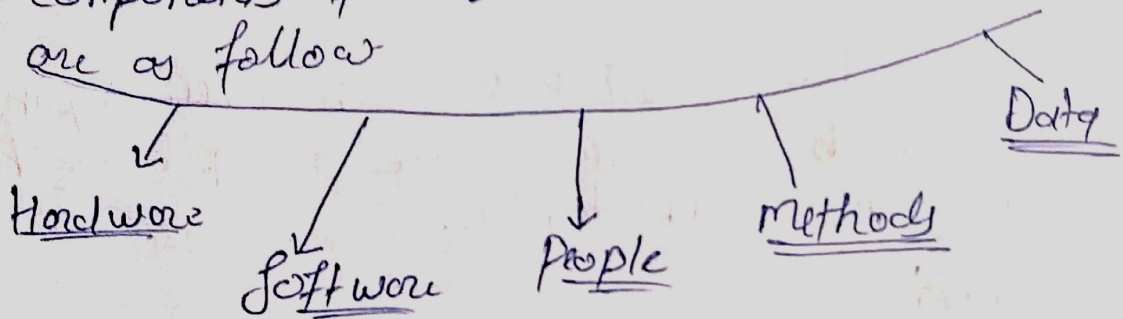
→ These are the main 5 components of the process of Global Information System and all of them are very important because disturbance in the components of GIS can be resulted into un-calibrated and defected results, which can further disturb the process having GIS application.



Q. 3 [D] Global information system is a computer based technology used for processing data in the form of raw facts [spatial or non spatial] into furnished pieces of information in form of maps, it is helpful in varied field of work like Agriculture, town planning, cartography, disaster management etc

→ Purpose of GIS to provide highly optimized and positively manipulated information to policy makers for making informed decision

→ components of Global information system are as follow



# Hardware → It is the technical instruments used for the process of GIS. It is divided into two parts —  
 — output devices → display, printer  
 — input devices → scanner etc.

# Software → It provide tools for —  
 — storing the data  
 — Analyzing data  
 — representing data

# People → Person involved in the process of GIS  
 Generally they are of two types

↳ GIS Engineers → one who deals with technical aspects  
 ↳ GIS operator → who follows the instruction of Engineer

# Data → this is the raw facts feeded into

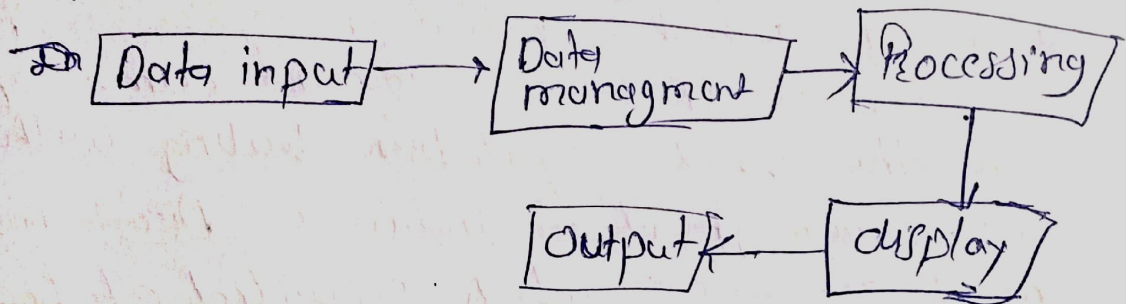


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### # Methods

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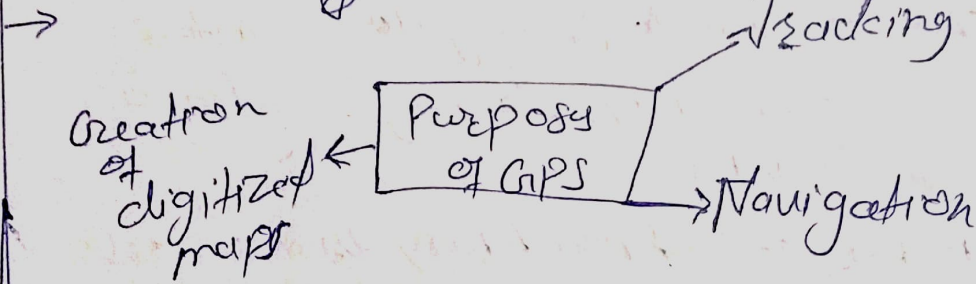


→ These are the main 5 components of the the process of Global Information System and all of them are very important because disturbance in the components of GIS can be resulted into un-calibrated and defected results, which can further disturb the process having GIS application.



Q3] E GPS (Global positioning system) is a satellite based navigation system which provides information about time and position of a object in real time, it was first developed by USA but India is also a major player with constellation of ~~satellite~~ satellites in space for navigation systems like Navic and Gagan

~~→ GPS has major been built~~



→ GPS has its application in various number of fields such as

Agriculture

- It is used for the automation of agricultural machines like tractor, sprayer etc
- can also be used for positioning marking of specific trees in Horticulture

Navigation

- It helps people to navigate through towns, cities, roads by the use of application like Google maps
- Aerial navigation for aircrafts like India's Gagan
- Marine navigation with the help of ~~the~~ GPS

Military

- To get positioning of enemy bunkers
- To get info about ~~the~~ attempts to capture area by enemy nation



Implementation  
Automobile

- GPS helps in automation of cars by providing real time position
- Geo tags like apple tags made by apple are used for tracking lost vehicles

Tracking

- Tracking of food delivery
- tracking of devices used for online fraud by police
- Automatic delivery by drones

Disaster management

- to speed up the process of relief work
- to track the safe routes and safe houses

Governance

- to track the "Toilets" build under Swachh' Bharat abhiyan during checking by a geo-tagged location to reduce subsidy leakage
- Geo-tagging of subsidized machinery provided by government to prevent its misuse.

This are some of the application of the GPS technology, and in this modern world people are rapidly moving towards Artificial intelligence and Internet of thing. GPS provides a very crucial base for all this technologies to work.