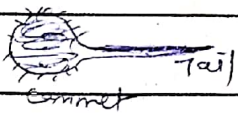
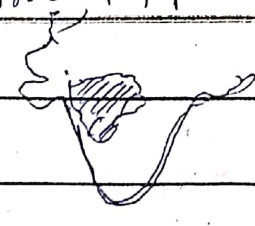


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मुख्य परीक्षा उत्तर पुस्तिका
(Mains Answer Sheet)

1	A	→ Extra terrestrial body consists of <u>dust</u> , rock, minerals and <u>gases</u> -
		→ Revolve around the Sun 
		→ When nearer to it, gets <u>heated</u> and started <u>glowing</u> and <u>burning</u> .
1	E	→ Local wind <u>blow</u> flows in <u>South Africa</u> Continent
		→ Dry and <u>Dust laden</u>
		→ Flows from <u>East</u> to <u>west</u> (<u>Coast of Guinea</u>)
1	D	→ <u>Moraine</u>
		→ <u>Cirque</u>
		→ <u>U-shaped valley</u>
1	B	→ <u>Apoogee</u> - when earth is at <u>farthest</u> distance from <u>moon</u> while revolving in its orbit.
		Date → <u>3 January</u>
		→ <u>Perigee</u> - when earth is at <u>nearest</u> position ^{from moon} while revolving in its orbit
		Date → <u>4 July</u>
1	E	→ Rock series formed after <u>Archean</u> Rock series
		→ Formed by <u>erosion</u> and <u>sedimentation</u> of <u>Archean</u> series

<input type="checkbox"/>	<input type="checkbox"/>	→ Found in Karnataka, Maharashtra, M.P
<input type="checkbox"/>	<input type="checkbox"/>	→ Chilpi Series - Balaghat
<input type="checkbox"/>	<input type="checkbox"/>	→ Saugar series - Chindwara
<input type="checkbox"/>		
1	F	→ Asia largest <u>Salt Water Lake</u>
<input type="checkbox"/>	<input type="checkbox"/>	→ Location - <u>Orissa</u>
<input type="checkbox"/>	<input type="checkbox"/>	→ <u>Ranma</u> <u>Witand</u> <u>Site</u>
1	G	→ <u>Himalayan</u> <u>pass</u> <u>lies</u> <u>in</u> <u>Uttarakhand</u>
<input type="checkbox"/>	<input type="checkbox"/>	→ <u>Connect</u> <u>India</u> <u>with</u> <u>Tibet</u>
<input type="checkbox"/>	<input type="checkbox"/>	→ <u>Used</u> <u>for</u> <u>pilgrimage</u> <u>to</u> <u>Kailash</u> <u>Mansarovar</u>
1	H	→ <u>Four</u> <u>&</u> <u>six</u> <u>lane</u> <u>National</u> <u>Highway</u>
<input type="checkbox"/>	<input type="checkbox"/>	→ <u>for</u> <u>smooth</u> <u>travel</u> <u>experiences</u>
<input type="checkbox"/>	<input type="checkbox"/>	→ <u>Constructed</u> <u>by</u> <u>National</u> <u>Highway</u> <u>Authority</u> <u>of</u> <u>India</u>
<input type="checkbox"/>	<input type="checkbox"/>	→ <u>Example</u> - <u>Yamuna</u> <u>Expressway</u>
1	J	→ <u>Major</u> <u>River</u> <u>that</u> <u>flows</u> <u>in</u> <u>North</u> <u>East</u> <u>Region</u>
<input type="checkbox"/>	<input type="checkbox"/>	→ <u>Length</u> - <u>900</u> <u>km</u>
<input type="checkbox"/>	<input type="checkbox"/>	→ <u>Drain</u> <u>into</u> <u>Bay</u> <u>of</u> <u>Bengal</u>
<input type="checkbox"/>	<input type="checkbox"/>	→ <u>Flow</u> <u>through</u> <u>Assam</u> , <u>Manipur</u> , <u>Nagaland</u>

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मुख्य परीक्षा उत्तर पुस्तिका
 (Mains Answer Sheet)

1	K	→ Full form: Food Safety And Standard Authority of India → Formation: - August 2011
		→ Functions: Monitoring and Regulation of standard of food items in India
L	L	→ Dedicated area for export of Agricultural product → M.P has 5 Agricultural export Area.
		→ Industries obtain various subsidies & concessions in setting industries here.
1	M	→ Type of Land Reform → Bringing small sized land holding and grouping them together → Helps in Cooperative Farming
H	N	→ Kind of precise Irrigation technique → Involves mixing of fertilizers in Irrigation system. → Improve nutritional intake of plant

1	N	<p>Apex institute for <u>training</u> and <u>capacity building</u> for <u>disaster related issue</u> in <u>India</u>.</p> <p>+ HQ - <u>New Delhi</u></p> <p>+ Year - <u>1995</u></p>
3	A	<p><u>Salinity</u> + <u>Increase</u> in the <u>nutritional content</u> of <u>water</u> generally <u>Sodium</u> and <u>Magnesium salts</u> is called <u>Salinity</u>.</p> <p>+ Water having <u>salinity</u> greater than <u>35 PPT</u> termed as <u>Saline water</u>.</p>
		<p>Temperature</p>
		<p>Ocean current</p>
		<p>Wind</p>
		<p>Evaporation + Evaporation directly affect <u>Salinity</u> of <u>water</u>.</p> <p>+ If <u>rate</u> of <u>evaporation</u> is <u>high</u>, <u>salinity</u> will be</p>

more.

Freshwater inflow & If freshwater inflow is high, then salinity will be less.

→ That's why mouth of river, when lakes, river meet ocean have low salinity.

wind & wind blows ocean water from one place to another and transfer less

saline water into more saline waterbody.

Ocean Current & Ocean Current forces

denser/saline water downward and causes less saline water upward,

→ that's why sea surface salinity is less

+ Creation of Upwelling Zone is function

temperature & If temperature is high, it

causes water molecules to move apart,

therefore they become less denser & less

saline.

Location & Region in and around equator

has low salinity because of high Rainfall
high Humidity and less evaporation due
to cloudy atmosphere.

→ Salinity increases ~~like~~ towards sub tropical
region, due to less Rainfall, more
evaporation.

→ Salinity further reduced/minimum toward
pole.

Salinity in water body is big concern as
it makes water unfit for consumption
∴ we must focus on clearing and
maintaining our water bodies clean and
free from contamination.

3 B

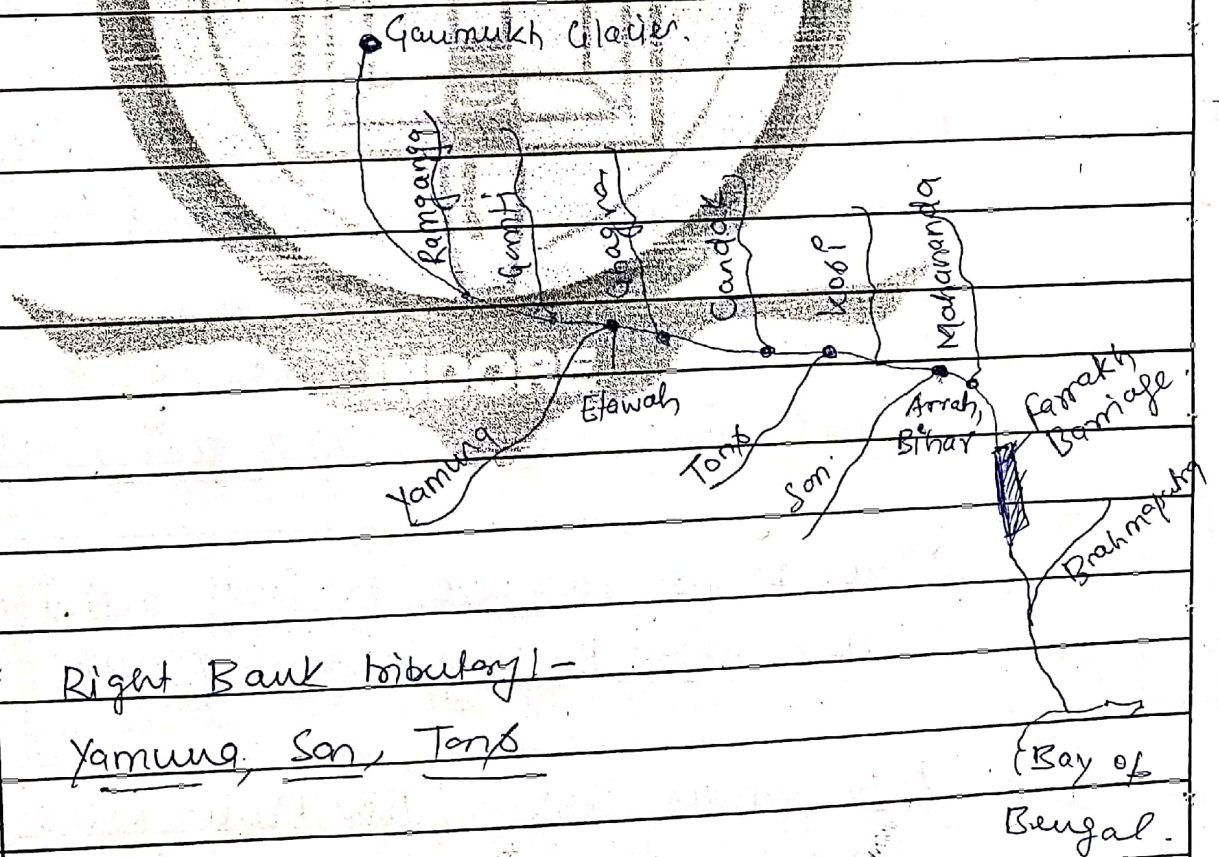
Ganga River, which is worshipped in India as Mother and goddess, plays a vital role in socio-economic life of people in India

Origin:- Gangmukh Glacier, Uttarakhand

Length:- 2525 km

States through which it flows:- Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, West Bengal

Drains into Bay of Bengal, Sagar Island



Right Bank tributary:-

Yamuna, Son, Tons

Left Bank tributary:-

Ranganga, Gomti, Gogra, Gandak, Kosi, Maharanda

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मुख्य परीक्षा उत्तर पुस्तिका
(Mains Answer Sheet)

<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	Significance of <u>Ganga River System</u> :-
<input type="checkbox"/>	<input type="checkbox"/>	→ Cover an total of <u>26.3%</u> of total geographical system
<input type="checkbox"/>	<input type="checkbox"/>	→ Forms vast <u>fertile plain</u> of Northern India
<input type="checkbox"/>	<input type="checkbox"/>	→ Its <u>fertile soil</u> , resulted in prosperous agricultural region of India like <u>Uttar Pradesh</u> <u>West Bengal</u> , certain portion of <u>Bihar</u> .
<input type="checkbox"/>	<input type="checkbox"/>	→ Provide <u>Navigable inland waterway</u> ◦ <u>NH-1</u> , connect Allahabad to Haldia
<input type="checkbox"/>	<input type="checkbox"/>	→ Various <u>pilgrimage</u> places lies on its shore like <u>Prayag</u> , <u>Varanasi</u> , <u>Hardiwar</u> .
<input type="checkbox"/>	<input type="checkbox"/>	→ Provide for <u>Adventure tourism</u> activities like <u>river Rafting</u> , <u>diving</u> etc.
<input type="checkbox"/>	<input type="checkbox"/>	→ 5 famous Prayag, [<u>Dev</u> , <u>Rudra</u> , <u>Nandi</u> , <u>Vishnu</u> <u>Karn Prayag</u>] lies near its origin, which is major <u>pilgrimage</u> site, therefore helps in development of tourism and

economy of India & people living there

→ Ganga River ~~River~~ System not only is a boom from cultural perspective, it is very important from economic and social point of view.

→ In order to keep it clean & pure, govt had initiated various schemes like Har Har Ganga, Nirmal Ganga, Aival Ganga

Land Reforms

Various reforms that were initiated in order to improve the condition of land and giving ownership right of land to cultivators is called as land Reform.

Why Land Reforms?

During, British era, land revenue policies

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मुख्य परीक्षा उत्तर पुस्तिका
(Mains Answer Sheet)

like Ryotwari system, Mahalwari system
and Permanent settlement, completely
devoted Indian agricultural society;

- o - Deprived cultivator from ownership right
- o Reduced them to mere tenants
- o Charged high land revenue

Therefore, after independence, government
decided to improve and uplift condition
of Indian agricultural society by
bringing land reforms in India

Tenancy
Right

consolidation of
land holding

Land Reforms

Absolution of
Zamindari

Land Ceiling

Absolution of Zamindari :-

- o Government abolished system of Zamindari
- o Confiscated lands belong to big Zamindars
- o Distributed land among farmers

Consolidation of land Holding :-

- Government consolidated small sized land holding into one big agricultural land to promote cooperative farming

Land Ceiling

- Government fixed maximum size of land one can own.
- Transferred surplus land needy.

Tenancy Reform :-

- Bought many tenancy reforms.
- Make cultivator owner of land.
- Provided subsidy for cultivation.

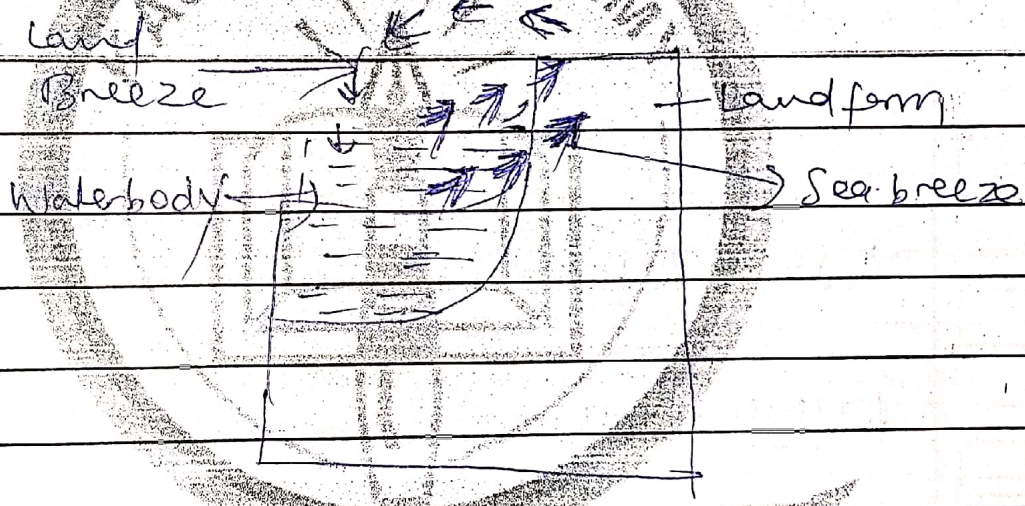
Right to land, initially was fundamental right but through 1st Constitutional Amendment it was removed from Fundamental right and made legal right to implement land reforms.

2	A	<p>Earth internal structural</p>	
		<p>mainly composed of</p>	
		<p>① Crust</p>	
		<p>② Mantle</p>	
		<p>③ Core</p>	
		<p><u>Crust</u></p>	
		<p>→ outermost layer of earth</p>	
		<p>→ Thickness - 0-10 km</p>	
		<p>→ Made of <u>Silicon</u> and <u>Aluminium</u></p>	
		<p>→ Density - <u>3 g/cm³</u></p>	
		<p><u>Mantle</u></p>	
		<p>→ <u>Second layer</u> of earth interior.</p>	
		<p>→ Thickness - <u>2900 km</u></p>	
		<p>→ Made of <u>Silicon</u> and <u>Magnesium</u></p>	
		<p>→ Density - <u>5-8 g/cm³</u></p>	
		<p><u>Core</u></p>	
		<p>→ <u>Innermost layer</u> of earth crust</p>	
		<p>→ Made of <u>Nickel</u> and <u>Iron</u></p>	
		<p>→ Density - <u>13 g/cm³</u></p>	
		<p>→ Outer core is <u>liquid</u> and inner is <u>solid</u></p>	
		<p>Crust is the layer which support <u>human life form</u></p>	

2 B

Sea Breeze

- o Air that flows from Sea to land.
- o Blows during day time
- o Moisture laden
- o Decreases temperature in the region where it flows
- o More frequent in Summer Season
- o Sea Breeze are deep



Land Breeze

- o Air that blows from land to Sea
- o Generally dry in Nature
- o Shallow
- o Blows during Night time
- o More frequent in Winter and Autumn Season
- o Do not affect temperature much.

2 D

Wind :-

Movement of air from one region to another with high speed is called wind.

Landform Created by Wind

Depositional Landform

Erosional Landforms

- Barchans
- Sand Dunes

→ Mushroom Rock

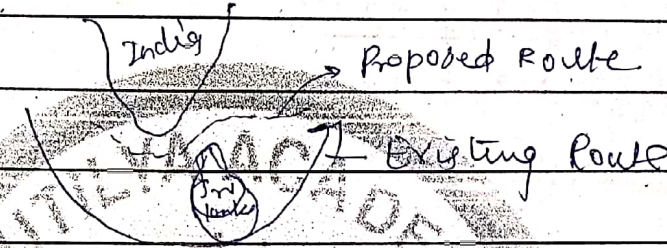
Barchans :- Crescent shaped sand dunes.

Sand Dunes :- when wind flows over desert area, it carry sand particles from one region to another and deposit it at another place, and form high elevated area called sand dunes.



Mushroom rock

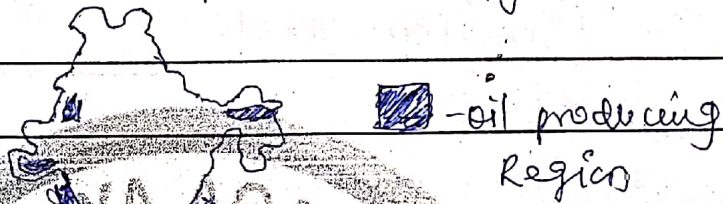
Mushroom Rock :- Wind that blows in Desert cuts/erode the lower surface of rock more than upper surface, and thus gives rise of Mushroom Rock feature

2	F	<p><u>Setusamudra Project</u></p>
		<p>◦ Proposed project to create a <u>shipping route</u> in the shallow water of <u>Palk Bay</u> between <u>India</u> and <u>Sri Lanka</u></p>
		
		<p>In <u>2005</u>, government of <u>India</u> proposed & approved this <u>project</u>.</p>
		<p>However, there are certain <u>concerns</u>:-</p>
		<p>◦ Digging <u>44.9</u> <u>metre</u> <u>wide</u> <u>channel</u> requires <u>high</u> <u>expenditure</u></p>
		<p>◦ May affect <u>India's</u> <u>sovereignty</u> in <u>Indian Ocean</u></p>
		<p>◦ <u>Security</u> <u>concern</u> to <u>India</u></p>
		<p>◦ Government in <u>2018</u> said to <u>Supreme Court</u> that digging or affecting <u>Ram Setu</u></p>
		<p>in <u>Palk Bay</u> may have many <u>socio-cultural</u> and <u>economic</u> <u>disadvantage</u></p>
		<p>Creating the project may have reduce the <u>shipping route</u> but for <u>India</u> it may <u>not</u> be of very much <u>importance</u> as <u>India</u> usually trade with <u>west</u> and <u>east</u> from <u>other</u> <u>coast</u>.</p>

2 4

Petroleum derive from two word "Petro" and "oleium" which means rock oil

→ It is liquid mineral composed of mainly hydrogen and produce energy on burning



Region

on-shore

off-shore

ON-SHORE

Assam

Rajasthan

o Digboi

o Basmel

o Moran

o Major region

Gujrat

in largest on-shore oil

o Ankleshwar -

producing Region in India

o Sanand

o Kalol

o Mehsana

<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<u>off shore</u>
<input type="checkbox"/>	<input type="checkbox"/>	o Gulf of khambat
<input type="checkbox"/>	<input type="checkbox"/>	o Mumbai High
<input type="checkbox"/>	<input type="checkbox"/>	o Aliabet
<input type="checkbox"/>	<input type="checkbox"/>	o Bassin
<input type="checkbox"/>	<input type="checkbox"/>	o Cauvery Basin
<input type="checkbox"/>	<input type="checkbox"/>	o Godavari Basin
<input type="checkbox"/>	<input type="checkbox"/>	oil in India mainly found in tertiary deposit and in limited quantity
<input type="checkbox"/>	<input type="checkbox"/>	India mostly import crude oil from foreign countries.
<input type="checkbox"/>	<input type="checkbox"/>	however, recently <u>strategic oil Reserve</u> have been created by <u>government of India</u>
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	

2 H Dandakaranya Plateau

o This plateau derive its name from Dandak forest found in Bastar Region

o ~~19~~

o Major portion lie in Orissa, Chattisgarh & Andhra Pradesh, some part of M.P.

o Length 320 km from North to South and 480 km from East to West

o M.P. Bilaspur, Balaghat, and Mahadashra Gandia region lie in it

o Mineral rich region, Manganese, limestone Iron found in abundance

o Important from Mythological perspective

o River Mahanadi and Godavari flow from this region.

o Made of Red yellow soil and some part of it from loamy soil.

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(Mains Answer Sheet)


2	II	<u>Chernobyl Accident (1986)</u>
		It was the worst nuclear disaster of the world that took place on <u>26th April, 1986</u> .
		<u>Place</u> → <u>Ukraine</u>
		<u>Type</u> → <u>Manmade Disaster</u> .
		<u>Causes</u> →
		○ <u>Blast in Nuclear Reactor No. 4</u>
		○ <u>Human Negligence</u>
		○ <u>Faulty design of Reactor RBMK</u>
		○ <u>Due to faulty design and human negligence, the automatic shutdown mechanism was shut down during routine maintenance, when Reactor started, uncontrolled chain reaction started and Reactor Blast</u>
		<u>Result</u> →
		○ <u>Loss of human life, hundred lost their life and many other suffered from chronic disease</u>
		○ <u>Damag. to nearby forest, genetic life</u>

① Many affected from Thyroid Cancer some
lost their vision.

Disaster Management

- Immediate rescue operation started.
- Evacuation of people from affected area.
- Medical facilities was provided to affected.
- Entire area was sealed.
- Government granted relief fund to affected.

Thus, it was the worst nuclear disaster
that the world has ever seen, the
beautiful forest near Chernobyl now turned
in Red dead trees.

2	J	<p><u>Cyclone</u></p>
		<p>Region of low pressure air surrounded</p>
		<p>by Region of High pressure air in swirling</p>
		<p>motion is called cyclone</p>
		
		<p>eye of cyclone</p>
		<p><u>Condition</u> <u>Measures</u></p>
		<ul style="list-style-type: none"> o Pre-existing low pressure zone
		<ul style="list-style-type: none"> o Mean surface (sea) temperature $> 27^{\circ}C$
		<ul style="list-style-type: none"> o Small variation in vertical wind speed
		<ul style="list-style-type: none"> o Coriolis force
		<p><u>Measures to Avoid it</u></p>
		<p>↓</p>
		<p><u>Structural</u> <u>Non-structural</u></p>
		<ul style="list-style-type: none"> o structural design
		<ul style="list-style-type: none"> o Afforestation
		<ul style="list-style-type: none"> o Shelter belt
		<ul style="list-style-type: none"> → Round top, dome shaped roof
		<ul style="list-style-type: none"> → Avoid using Mirrors in window and door.
		<ul style="list-style-type: none"> → Strong latching mechanism for door and window

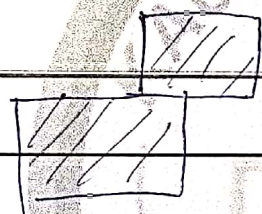


→ Symmetrical layout of building

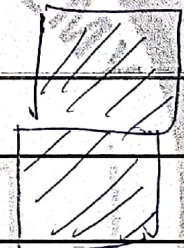
→ Avoid Window just below roof

○ Strong foundation

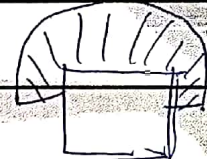
○ Avoid building house near coast line,
at least 250m away.

(Wrong design)



(Right design)

(Right design Roof)



(Wrong design Roof)

2 k

Irrigation

It is the process of artificially providing water to plant to fulfill their water requirement and stimulate growth.

→ Localized Irrigation

o water is supplied to root of plant with help of tubes under low pressure

→ Drop Irrigation

o water is supplied to roots drop by drop to avoid wastage and runoff.

Methods

→ Fertigation

o Fertilizer is mixed with Irrigation system to improve nutritional intake of Plant.

→ Sprinkler & water is sprayed over crop in form of water droplets of small size

→ Gun Blast & water is sprayed over crop under high velocity over long distance

Government initiative KUSUM scheme is welcoming step.

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मुख्य परीक्षा उत्तर पुस्तिका
(Mains Answer Sheet)

2	L	<p><u>Food Processing</u></p>
		<p>It is the process of converting raw material into more valuable good through series of industrial process.</p>
		<p>Productivity → Infrastructure</p>
		<p>Proposed in M.P.</p>
		<p>Government Initiative → Connectivity</p>
		<p><u>Infrastructure</u></p>
		<ul style="list-style-type: none"> o 5 Agro-export zone o 45 Industrial zone
		<ul style="list-style-type: none"> o 8 Mega Food Park o Cheap availability of land
		<ul style="list-style-type: none"> o Vibrant industrial base
		<p><u>Connectivity</u></p>
		<ul style="list-style-type: none"> o Eastern & western Rail Route passes through M.P.
		<ul style="list-style-type: none"> o Centrally located
		<ul style="list-style-type: none"> o Nearness to major ports

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मुख्य परीक्षा उत्तर पुस्तिका
(Mains Answer Sheet)

भारत का नं. 1 संस्थान
कौटिल्य एकेडमी
सफलता का पथ है द्वारा...

Productivity

- o 11 Agro-climatic zone
- o 5 crop zone
- o varied soil and climatic condition for cultivation
- o largest producer of -
 - Pulses
 - Soyabean
 - Cotton
 - Maize

Government Initiative

- o Dedicated portal to attract investor and submit proposal -
- o Auto renewal of "Consent to work" form.
- o Electricity subsidy for MSMEs and Industries
- o Single ID for all taxes

So, state of M.P which was earlier lagging behind in food processing sector now accelerating and on right track of becoming major processing centre in India -