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Date - 10/03/2022

14M/2

भारत का नं. 1 संस्थान  
कौटिल्य एकेडमी  
सफलता का प्रवेश द्वार

PART-A

प्रश्न  
संख्या

मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)

1.	1	In a circular motion, centripetal force is the force which works towards the centre. This force is necessary to keep the object moving. e.g. Turning of a car in a turn.	perpendi- cular to velocity
1.	2	The capacity or ability to perform a task is called energy. It is measured in Joules. can be transformed in diff forms.	
1.	3	Buoyant force is the upward force that is applied by the fluid on the floating object in it. e.g. the force applied by the water on the vessel floating in it.	
1.	4	Magnification is the process to enlarge an object apparently, but not actually. It is done by using a magnifying glass.	1 1/2
1.	5	Cell is the most fundamental unit of an organism. It performs all the necessary functions to keep the organism functioning.	

asked about  
electrochemical cell.

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<p>1. 6</p> <p>4</p>	<p>→ <u>diffusion</u> <u>osm</u></p> <p>Osmosis is the process in which a liquid passes through a <u>semipermeable membrane</u>. In this the <u>solvent dissolved particles</u> are not able to cross through the <u>membrane</u>.</p> <p>→ <u>flow of solvent?</u></p>
<p>1. 7</p> <p>2</p>	<p>Vitamins are the <u>micronutrient</u> that are needed for <u>human body to stay healthy &amp; grow</u>. e.g. <u>Vitamin A, B, C etc</u></p> <p>types?</p>
<p>1. 8</p> <p>4</p>	<p>A <u>balanced diet</u> is that diet in which all the <u>nutrients</u> are present in a <u>required or sufficient quantity</u>. <u>nutrients like?</u></p>
<p>1. 9</p> <p>2</p>	<p>Halogens are <u>Group 17 element</u> under <u>block d</u> in the <u>modern periodic table</u>. These include <u>Chlorine, Fluorine, Iodine etc.</u></p> <p><u>abundant in sea water</u></p>
<p>1. 10</p> <p>2</p>	<p>Shagan Portal is related to <u>education</u>. It was launched by <u>Ministry of Human Resource Development</u>.</p> <p>→ <u>feature?</u> → <u>register of complaints</u></p>
<p>1. 11</p> <p>2</p>	<p><u>High level language</u> is that <u>programming language</u> which is written or programmed to <u>understand easily by the user</u>. e.g. <u>Python, Javascript etc.</u></p>

write 3 marks questions in points

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मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)

भारत का ज. 1 संवत्सज  
कौटिल्य एकेडमी  
सफलता का पथ है द्वारा...

1. 12

Cyber crime is the crime or execution of other illegal activities using the law? cyber space such as computer & the internet. E.g. child pornography, fraud, identify theft etc. *adm body?*

1. 13

Probability of getting 3 in a dice =  $\frac{1}{6} = \text{0.166}$  *→ also mention formula*

1. 14

Average age of A, B, C =  $\frac{48+50+60}{3} = 52.6$  years

1. 15

Compound interest is the interest on accumulated interest in addition with the actual principal amount. It is also called as 'interest on interest.'

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2. 1

Chemical properties of metals :

① Reaction with Oxygen — Metals reacts with oxygen & form oxides.  
 eg.  $2\text{Na} + \text{O}_2 \rightarrow 2\text{Na}_2\text{O}$

② Reaction with water — Metals react with water & form hydroxides  
 eg.  $2\text{Ca} + 2\text{H}_2\text{O} \rightarrow 2\text{CaOH} + \text{H}_2$

③ Some metals like sodium & potassium are so highly reactive that they are kept in kerosene.

Try to avoid writing mistakes

add more properties

2. 2.

Atmospheric pressure can be defined as the pressure of a unit <sup>volume of</sup> column of air on a unit area. Atmospheric pressure is measured in Pa.

$1 \text{ Pa} = 10^5 \text{ N/m}^2$

which Atmospheric pressure is used in determining or predicting the weather phenomena. A sudden fall in mercury is indicator of storm. A slow fall is indicator of rainfall. And a slow rise is indicator of normal weather. Atmospheric pressure is measured with Barometer.

also compare it at diff altitudes & mediums

2/2

प्रश्न संख्या

मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>2. 3</p> <p><u>Viscosity</u> - The relative difference in the motion of a liquid between its different layers is called viscosity. It is symbolized by <math>\eta</math>.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>3</p> <p><u>Elasticity</u> - The deformation caused by a deforming external force on object &amp; after removing the force the object comes back to its initial original shape. This characteristic of an object is called elasticity.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>2. 4</p> <p><u>Sulfur</u> is an element in modern periodic table with the atomic number 16. It falls under the group under the block d.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>Sulfur is highly reactive element.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>1) It is of yellow colour in appearance.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>2) It is crystalline in nature.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>3) It is generally a by product of petroleum &amp; natural gas.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>4) It is found in Gulf of Florida, K-G Basin, etc.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>5) It is used in manufacturing fertilizers, pesticides, fungicides etc.</p>

Good penmanship

ms Answ  
ue is  
gokh  
wood  
rio  
don  
iA  
is  
r  
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5

Nuclear decay is also called radioactive decay, nuclear disintegration or radioactivity of an atom. When an unstable atom releases its nuclei through radiation, this is referred as nuclear decay. In this process huge amount of energy is released. There are different kinds of radioactive decay such as:  $\alpha$  decay,  $\beta$  decay &  $\gamma$  decay. (alpha, Beta & Gamma decay.)

mention radio-active elements

2/2

6

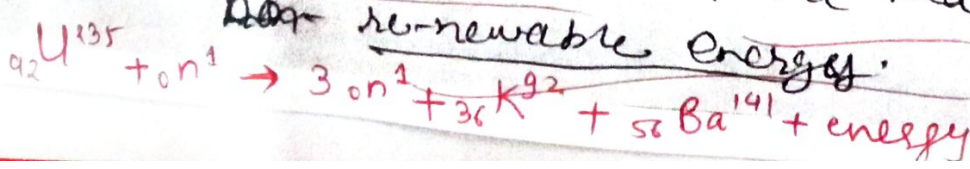
When an nucleus atom splits into two nuclei of nearly equal mass, this is called as nuclear fission.

The newly made nuclei further split & thus they start a chain reaction.

also write for nuclear reaction

Nuclear reactors are based on the chain reaction of nuclear fission.

$U^{235}$  is generally used as the fissionable material. The chain controlled chain reaction performed in nuclear reactors generate huge amount of energy, which is called as nuclear power, which a major source of non-renewable energy.



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(Mains Answer Sheet)

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write in reading  
cause  
effect  
solution  
features

2.	7	<p>Genetic diseases are those diseases which occur due to alteration or modification in the genetic code of an organism. The DNA inside the cell contains the genes which contain the genetic information. Any alteration in the genes causes genetic disorders. These diseases can be hereditary or inherited by the parents such as haemophilia, sickle cell anaemia, or they can be caused due to mutation of genes such as cancer.</p>
<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.	8	<p>Computer virus is a programme designed to alter the way a computer device works. This can be easily inserted into a computer through a file or document. It can replicate &amp; transfer as well. Just like the living virus it also needs a host that is computer &amp; it can spread through the internet to the other systems. Once inserted in a device it can corrupt the computer, steal information or data theft, &amp; are can be used for cyber crime. Such viruses are Melissa, LINDA etc.</p>
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	

def  
features  
spread  
solution  
examples

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मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)

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9

$$23x - 21y = 196 \rightarrow \textcircled{1}$$

$$21x - 23y = 220 \rightarrow \textcircled{2}$$

29.

10

Given: selling price = 140 Rs

$$140 \times \frac{30}{100} = 42$$

$$140 + 42 = 182 \text{ Rs}$$

To get 30% profit, he should sell the article in 182 Rs.

10



3.	1	<p><u>Mixture</u> can be defined as the blend of two or more substances in which their <u>chemical properties</u> are <u>not changed</u>.</p> <p>e.g. Blend of <u>sugar</u> and <u>sand</u>.</p>
		<p><u>Properties of mixture</u>:-</p>
		<p>① They are <u>blend mechanically</u>, <u>not chemically</u>.</p>
		<p>② <u>The components of a mixture</u> retain their <u>chemical properties</u>.</p>
		<p>③ They are <u>not blended in a fixed proportion</u>.</p>
		<p>④ <u>The components of the mixture</u> can be <u>separated manually</u>.</p>
		<p>⑤ <u>The different component of a mixture</u> is <u>generally visible</u>.</p>
		<p>There are <u>different types of mixture</u> which can be <u>elaborated as follows</u>:</p>
		<p>① <u>Homogenous mixture</u> - In this type of mixture the <u>components of mixture</u> are <u>mixed uniformly</u> and their <u>particles</u></p>

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can not be seen with naked eyes.

Such as mixture of sugar & water

is an example of homogeneous mixture.

(2) Heterogeneous mixture - In this type of mixture the components of

the mixture can be seen & can be segregated manually.

Such as Crude oil is a mixture of different hydrocarbons. It can

be refined and different petroleum products such as petrol, diesel

etc can be segregated from it.

If we see around, our daily life is surrounded by the different

kind of mixture. In fact, at more or less all the things we see

or consume are the mixture of something. Such as the air we

breath, is mixture of different gases, the food we eat, is also

a mixture of different food items & nutrients. Mixtures are very

important part of human's day today life.

Write in points the properties of heterogeneous & homogeneous mixtures

6



9.	2	<p>An electric cell is a device that converts the <u>chemical energy</u> into <u>electric energy</u>.</p>
		<p>liquid</p> <p>Electric cell was a <u>chemical</u> that contains <u>two rods</u> which work as <u>electrode</u>. These are connected to an <u>external electric circuit</u> or <u>power source</u>. When the system is <u>activated</u> <u>negatively charged</u> rods released <u>negatively charged ions</u> which flow towards the <u>positively charged rod</u> &amp; thus the <u>electricity starts</u> or the <u>electric current is generated</u>.</p>
		<p>Such <u>electrical cell</u> based on <u>liquid chemicals</u> are known as <u>voltair</u> or <u>galvanic cell</u> as well.</p>
		<p>In this, the <u>positively charged zinc rod</u> &amp; <u>negatively charged copper rod</u> are placed in the <u>chemical solution</u> of <u>diluted sulphuric acid</u> (<math>H_2SO_4</math>)</p>

draw diagram



And thus when this is connected through a electric circuit, the electric currents start generating.

There are different types of electric cells. such as:

① Primary cell - These are non-rechargeable electric cell. The

chemical reaction happens inside the cell. and once discharged

they can't be recharged. e.g.

Daniel cell etc. voltacell, leclanche cell

② Secondary cell - These are rechargeable cell. Once discharged they

can be recharged & thus they are long lasting. All modern day

batteries are this type of cell only. of mobile batteries, inverter batteries

The electric cell's discovery was an event in itself. It brought revolutionary changes in the modern man's life & it continues to be evolving.

The modern Lithium-ion batteries are example of modern day rechargeable batteries.

6/2

3.	3	<p>Infectious diseases are those diseases that are caused by pathogens such as bacteria, fungi, virus, worms etc.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>Some of the infectious diseases are more deadly as they can be transmitted from human to human or from animal to human.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>Generally, these diseases are caused by the consumption of contaminated water or food, living in unhygienic conditions etc.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>The major infectious diseases can be described as follows:</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>① <u>Malaria</u> - It is caused by protozoa. It is characterised by high fever &amp; fatigue. Female anophiles mosquito is its carrier.</p>
<input type="checkbox"/>	<input type="checkbox"/>	<p>② <u>Dengue</u> - It is caused by virus. It is also characterised by high fever, body aches &amp; fatigue. Aedes mosquito is carrier of this.</p>

3) Tuberculosis - It is caused by virus.  
In this lungs are affected & constant  
coughing can be experienced.

4) Tetanus - It is caused by bacteria.

5) AIDS - It is caused by HIV virus.  
It weaken the immune system.

6) Whooping cough - It is caused by  
pertussis virus. continuous cough is  
major symptom of it.

7) Covid-19 - It is caused by SARS-COV  
virus. It spreads very rapidly. It  
is characterized by respiratory problems,  
fever & fatigue.

Infectious disease are very easy to  
catch by the human. But, by maintaining  
cleanliness, hygiene, & proper life-  
style it can be prevented to  
a great extent.

good  
copy  
6/2

प्रश्न संख्या

मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)

3. 4

The computers and Information technology system have shaped the human life in recent years in more advanced & more comfortable one.

Things have dramatically changed with the advent of the new age computer technology. It has made the life more easier & simpler.

The modern computer technology has come up with new advancement in the field of science & technology. It can be explored as follows:

① Cloud computing - Cloud computing allows a person to access the data from any where. e.g. the Google apps such google drive, digitlocker etc

Platform  
IaaS,  
PaaS,  
SaaS.

② Artificial intelligence - Now machine with using computers are enabled to perform the task which were only man could perform.

e.g. Automation of IPO.

long intro

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③ Big data analytics - With the help of new age computers the big data analysis has become a simple task. This big data analysis is useful in making policy decisions, business & marketing.

④ Mobile applications - Different mobile applications with the changing needs of the society are made. These apps are proven to be very helpful in education, travel, health sector etc.

As the man evolves, the technology ~~evolve~~ evolves his needs evolve. And to fulfill these needs the technology evolves. The new computer technology is an example of it. This has made the things possible which were once unimaginable. The advent of super-computer & Quantum-computer has been proven to be revolutionary change in the history of mankind. And it is serving its purpose very well.

Quantum computing  
DNA computing  
Optical computing

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**PART - B**

प्रश्न संख्या

मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)

भारत का नं. 1 संस्थान  
**कौटिल्य एकेडमी**  
सफलता का प्रवेश द्वार...

1.	2	'Mission Parivar vikas' is launched by Ministry of Health & Family Welfare. It is focused on family planning. It aims at bringing down the <u>Total Fertility Rate</u> to <u>2.1</u> .
1.	3	<u>Laasha</u> or <u>Labour Room Quality Services delivery Programme</u> is an initiative of Ministry of Health & Family Welfare to provide better health services to expecting mothers.
1.	4	<u>RRCAT</u> stands for <u>Raja Ramanna Centre for Atomic Research</u> . It is a research unit of Department of Atomic Energy. It is headquartered in <u>Indore, Madhya Pradesh</u> .
1.	5	<u>NRSC</u> stands for <u>National Remote Sensing Centre</u> . It is headquartered in <u>Bengaluru, Hyderabad</u> . It comes under <u>Indian Space Research Organization (ISRO)</u> . It monitors the remote sensing satellites.

write in points  
aim? launched by? outcome or stakeholders?

2

2

2

2

year? 1996

teaching training research institute

A) L  
B) C  
C) I  
D) J  
E) K  
F) L  
G) M  
H) N  
I) O

मुख्य परीक्षा उत्तर पुस्तिका  
 (Mains Answer Sheet)

प्रश्न संख्या

9. 8  
 1/2

Clones are identical organisms produced from a single cell of a mother.  
 e.g. Sheep Dolly.

by asexual method

1. 7

2

Ocean thermal energy or Ocean thermal energy conversion is energy produced through the <sup>temperature</sup> difference between the different layers of ocean water. The turbine is moved using <sup>such</sup> ~~the~~ steam & energy is generated. renewable

calculated by Global Footprint Network  
 29 July 2017

1. 8

1/2

Earth overshoot day is the day when the human demands <sup>of</sup> surpass the ecological resources surpass the resource generation capacity of the earth for a given year.

$$\text{Earth overshoot day} = \frac{\text{Earth's capacity}}{\text{Ecological footprint}}$$

1. 9

2

Erosion of rocks done by the stream channel is known as stream channel erosion. This is of two types :-  
 ① vertical erosion - valleys are formed  
 ② lateral erosion - widening of flood plain.

प्रश्न संख्या

मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)



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

1. 10 The carbon stored in coastal <sup>marine</sup> ecosystems & ocean is known as blue carbon.  
e.g. carbon stored in mangroves, marshes etc.

1. 11 Use of organisms such as bacteria & fungi to degrade the pollutants is called bioremediation. It is used in <sup>technique</sup> removing oil from ocean during oil spill situation. <sup>waste mgmt.</sup>

1. 12 The specific or unique function or an position of species in the ecosystem is called ecological niche. <sup>biological, chemical, physical factors req for survival of a specie</sup>

1. 13 Denudation can be referred as to strip off or to uncover. Erosion & weathering are example of denudation. In this the layers of rocks are uncovered by the different agents such as water, wind etc. 12

1. 14 The water stored between the rocks below the earth surface is known as groundwater. It is stored in a reservoir called aquifers.

write in points  
↳ define  
↳ cause  
↳ impact  
↳ example

मुख्य परीक्षा उत्तर पुस्तिका  
 (Mains Answer Sheet)

प्रश्न संख्या

1. 15

Sedimentary rocks are made out of process of lithification that is contraction & compaction. All kinds of rocks when denuded become sedimentary rocks.  $\phi$ ?

2. 1

Ministry of Health and Family Welfare is a ministry under Government of India. It is responsible for policy making & implementation & regarding health & family planning.

The ministry has taken several steps & is in favour of schemes & initiatives to bring better execution of the policies. These schemes & initiatives are:

- ① Pradhan Mantri Surakshit Matruva Yojna
- ② National Health Mission
- ③ National Ayushman Bharat
- ④ Janani Shishu Suraksha Yojna
- ⑤ Lalsha ~~initiat~~ Initiative etc

write under heading

↳ Initiatives  
 ↳ outcomes

2/2

प्रश्न संख्या

मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)

2. 2	<p><u>Atyaman Bharat is world's largest health schemes. It has two components</u></p> <p>① <u>PM-JAY</u> → <u>PM Jan Arogya Yojna</u> → <u>Under this a health insurance cover of upto 5 lakh is provided.</u> → <u>In which pre &amp; post hospitalization charges are covered.</u></p>
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	<p>② <u>Health and Wellness Centres</u> — <u>Under this existing primary health care centres to be converted into health &amp; wellness centres to ensure better health service delivery.</u></p>
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
2. 3	<p><u>Genetic engineering can be explained as the process by which the genome of an organism is manipulated or modified. This is done using biotechnology such as CRISPR tech. Genetic engineering is used in different sectors such as health, industry, agriculture etc. seeds of BT cotton is made using genetic engineering. Hereditary diseases can be cured using genetic engineering.</u></p>
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	

date?

no families covered

doctor to patient ratio?

category  
↳ GE in field of agri  
↳ GE in health  
↳ GE in energy tech

मुख्य परीक्षा उत्तर पुस्तिका  
 (Mains Answer Sheet)

प्रश्न संख्या

2. 4.

Artificial Intelligence is the <sup>technology</sup> ~~art~~ to make the machines able to perform the task which one can only be performed by man. This is done through machine learning. The computer is programmed to think & act like a human brain. It enable the machine to experience the senses of man & use them in decision making. This can be used in delivering better health services, education & business etc.

*same answer*

2

2. 5.

Energy gram is the concept in which the villages are made self-reliant for their energy needs. The use and generation of renewable energy such as solar-power at ground level is main objective of energy gram concept. On this the villagers are taught how to produce renewable energy & use it in day to day life. eg. use of solar cooker for cooking or use of solar pumps for irrigation.

*mention scheme by govt*

2/2

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मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)

भारत का नं. 1 संस्करण  
कौटिल्य एकेडमी  
सफलता का प्रवेश द्वार

2. 6

India always has been a country where environment protection has cultural significance. This can be seen through various practices we follow:

① Natural forces such as fire & water are have been worshipped as gods.

② Trees such as peepal, neem, tulsi are considered sacred & preserved.

③ Sacred groves are worshipped & protected.

④ Animals such as snakes are worshipped.

⑤ Nature itself called mother, hence respected & protected.

Mata Bhumi Pater  
sham Prithviya.

2. 7

Chandrasekhar Venkat Raman was an Indian physicist & scientist.

He was born in Tamil Nadu.

He is known for his light scattering experiment.

It was later popularised as

Raman Effect.

He got Nobel prize for this also.

He is remembered as revered scientist who contributed his whole life to science.

boom →  
famous for →  
awards →  
contributions →

प्रश्न संख्या

2. 9

methods of obtaining minerals

Minerals are micronutrients that are needed for human body to stay healthy & grow. These are organic & inorganic substance occur in the environment. These include Potassium, Zinc, Copper, Magnesium, Iron etc. Human body doesn't synthesizes these minerals. These are taken from the plants & animals in the form of food. Water<sup>is</sup> also a mineral as it contain different micronutrients.

2. 10

Major Petroleum basins in India:

- ① Gujarat - Ankleshwar, Tulf of Khamhat
- ② Maharashtra - Bombay high, Bassine, Aliabet
- ③ Assam - Digboi, Guwahati
- ④ Tamilnadu - Cauvery delta, Krishna-Godavari delta.
- ⑤ ~~Western~~ coasts of western & eastern ghats

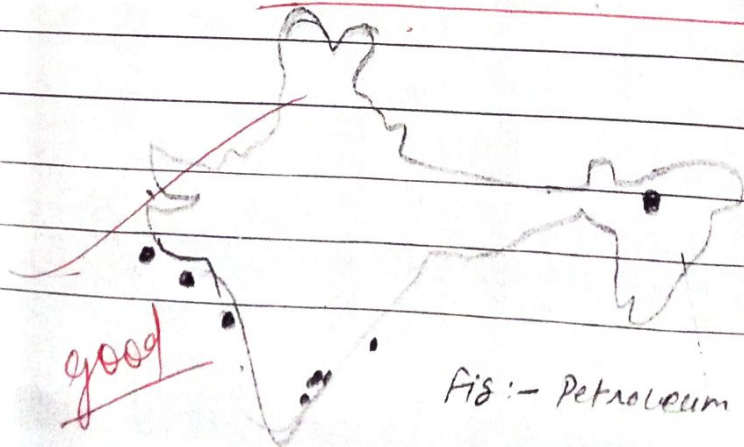


Fig:- Petroleum Rich regions



3. 1

Family health plays a significant role in the development of a nation.

A nation's growth & development is directly affected by the health of its population.

A healthy population has following bearing on a nation's development & growth:

① A healthy population means better development of brains at early stages of childhood.

② This will further enhance the child the cognitive capacity.

③ Excellence in all fields.  $\downarrow$  IMR, MMR

④ Better & skilled manpower. Happiness index  $\uparrow$

⑤ Increases competitiveness

⑥ which will ultimately lead to development & growth.  $\uparrow$  is competitiveness index

To ensure that family health is improved, government is taking various steps, such as:

① National health mission - under this family planning & health of entire household is considered.

Categories as  
↳ @ national level  
↳ @ state level  
↳ @ local level

प्रश्न संख्या

② Swakshat Matritva Yojna - under this pregnant women & lactating <sup>mothers</sup> ~~women~~ are taken care of.

③ Jarani Swaksha Yojna - under this institutional delivery is promoted.

④ Integrated child & women development under this anganwadi food services are provided.

⑤ SABIA scheme - under this adolescent girls are targeted. Their nutrition need is taken care of through anganwadis.

Government is making continuous efforts to bring the family health conditions at par with other nations. By

implementing the above schemes more vigorously the manpower or the human resource can be converted into human capital & could contribute more & efficiently in the development of the nation.

don't focus only on women & children also include BPL family

telemedicine

increase in share of GDP expenditure

improve doctor to patient ratio

मुख्य परीक्षा उत्तर पुस्तिका  
 (Mains Answer Sheet)

प्रश्न संख्या

3.	2	Geostationary satellite. are those satellite which are placed in the Geostationary orbit of the earth.
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	Geostationary orbit is that orbit of the earth which is at the height of about 36,000 km.
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	This is also called as geo-synchronous orbit as it is in sync with the equatorial plane of the earth. The satellite placed in it appears to be stationary as the rotation of the satellite is in sync with the rotation of the earth. Hence, they appear as if they are stationary in one place, hence, are called geostationary satellite.
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	Indian satellite as INSAT by ISRO is such an example.
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	Geostationary satellites are usually placed to monitor & predict

write in point form

draw diagram

different position

मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)

प्रश्न  
संख्या

the weather phenomena. such as  
rainfall pattern, prediction of  
cyclones etc.

There are other orbits also, such as:

① low earth orbit

② Sun synchronous orbit

③ polar orbits etc.

Geostationary satellite have  
been very useful in weather  
forecasting. & play a vital role.

is

Applications?

↳ satellite phone

↳ mobile phone

↳ navigation

↳ 2000 datacasting

↳ internet

प्रश्न  
संख्या

मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)



भारत का नं. 1 सरकार  
कौटिल्य एकेडमी  
सफलता का पतेरा है।

<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	With the growing prices of conventional energy sources such as fossil fuels, the need to develop the non-conventional energy sources has been risen in recent part.
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	Moreover, India has been at the forefront of developing and harnessing non-conventional or renewable energy sources. There are various sources that India has been utilizing. They are:
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	① <u>Solar Energy</u> - India being a tropical country has immense potential utilize its solar power. India is at forefront of harnessing the solar power as alternative.
<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 <u>Wind Power</u> - India at Tariffadu has the Asia's largest wind farm. India produces both onshore & offshore wind energy using the wind mills farm.
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	

Mention various targets fixed by govt for renewable energy

target till 2022

मुख्य परीक्षा उत्तर पुस्तिका  
(Mains Answer Sheet)

प्रश्न संख्या

③ Tidal wave energy - Using the tidal waves turbines are moved & energy is produced. Gulf of Khambhat is leading in this.

④ Biomass energy - Biomass energy such as gobar gas is one of such source which is highly used in remote area to cook food & for other activities.

⑤ Geothermal energy - Energy that is produced using the heat trapped by earth in hot springs, geysers, rocks above magma etc. Manikaran plant of Himachal Pradesh is one such example where hot springs are used to produce energy.

Non-conventional energy are the new norm now. India intends to produce 175GW of renewable energy by 2022 under its Internationally determined contribution. Which can be achieved if more focus can be given.

Mention current than of conventional & non-conventional energy sources

International agreement

New technologies

5

<input type="checkbox"/>	<input type="checkbox"/>	3.	<input type="checkbox"/>	<input type="checkbox"/>	India is one of the leading countries in the world which has taken various steps at different levels towards environmental protection.
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	The major steps can be described as follows:
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	① <u>Legal steps</u>
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	① <u>Environment Protection Act, 1986</u> -
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	It was enacted to formulate policy guidelines to deal with all the issues regarding environment protection.
<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 <u>Air (Pollution &amp; Protection) Act, 1981</u> -
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	to deal with air pollution.
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	③ <u>Water (Pollution &amp; Protection) Act, 1974</u> -
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	to check on the water pollution.
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	④ <u>Wildlife Protection Act, 1972</u> - To
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	conserve the natural environment & habitat of the wildlife.
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	⑤ <u>International treaties</u> -
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	India has signed multiple treaties & convention regarding environment

Also mention various established bodies under the acts

प्रश्न  
संख्या

Mention  
about  
recent  
Glasgow  
summit

<input type="checkbox"/>	<input type="checkbox"/>	protection such as :- ① <u>United Nations Convention to Combat</u> <u>Desertification</u>
<input type="checkbox"/>	<input type="checkbox"/>	② <u>United Nations Framework for Convention</u> <u>for Climate Change.</u>
<input type="checkbox"/>	<input type="checkbox"/>	③ <u>Paris Climate Change Agreement</u>
<input type="checkbox"/>	<input type="checkbox"/>	④ <u>Convention on biological diversity etc</u>
<input type="checkbox"/>	<input type="checkbox"/>	⑤ <u>Other steps &amp; initiatives</u>
<input type="checkbox"/>	<input type="checkbox"/>	⑥ <u>CMPA Fund</u>
<input type="checkbox"/>	<input type="checkbox"/>	⑦ <u>National Climate Action Plan (NAP)</u>
<input type="checkbox"/>	<input type="checkbox"/>	⑧ <u>National Ganga River Basin Authority</u>
<input type="checkbox"/>	<input type="checkbox"/>	⑨ <u>Internationally determined</u> <u>contribution (INDC)</u>
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	In <u>last few decades</u> <u>India has done a lot to protect</u> <u>environment &amp; is continuing</u> <u>doing it. It has etc etc</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"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	





3 5

Soils are formed due to denudation of rocks. The parent material of soil that is rock plays a vital role to determine the characteristic of any soil.

There are various kinds of soil are found in India. They can be classified as:

→ 1. covered

① Alluvial soil - These are found in the terai belt of lower Himalayas. Spreading across, Uttar Pradesh, Bihar, West Bengal along the gangetic belt. This soil is very fertile & support crops such as paddy, wheat, sugarcane etc.

② Black soil - It is also called regur soil. This soil is basaltic in origin. This is confined in the Peninsular plateau & Kathiawan plateau of Gujrat. It is known for its cotton cultivation. It is highly water retentive & acidic in nature.

Write under sub-heading  
Region →  
crop →  
main →  
dominant →  
chemical composition  
speciality →

मुख्य परीक्षा उत्तर पुस्तिका  
 (Mains Answer Sheet)

प्रश्न संख्या

<input type="checkbox"/>	<input type="checkbox"/>	3) <u>Red &amp; Yellow soil</u> - It is found in Central India, Eastern part of MP, Chhattisgarh etc. Major crops are paddy, wheat, pulses etc.
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	4) <u>Laterite soil</u> - This is found in the areas of heavy rainfall. Western Ghats & North-east have this soil. This soil supports tea & coffee cultivation & cashew nuts.
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	5) <u>Desert soil</u> - Low rainfall areas such as Ra Western Rajasthan has such soil.
<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/>	6) <u>Mountain-forest soil</u> - It is found in Himalayan region.
<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"/>	

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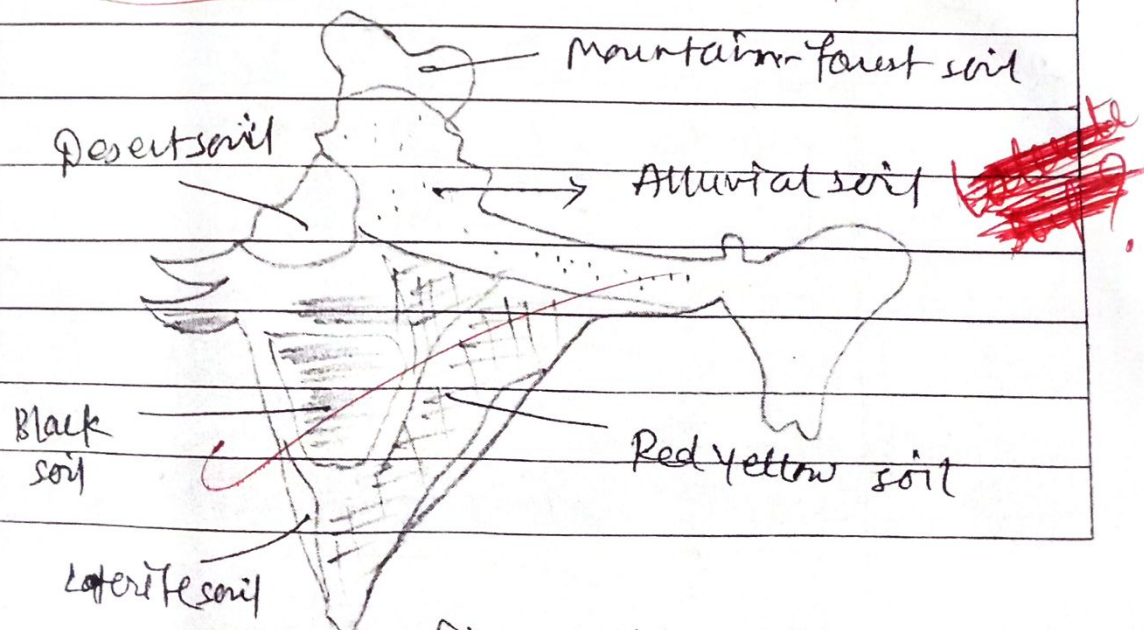


Fig:- Soil distribution in India