

General Science And Ability

Part - II (Section - A)

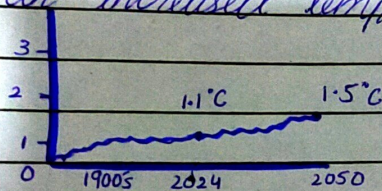
Q.3

(a)

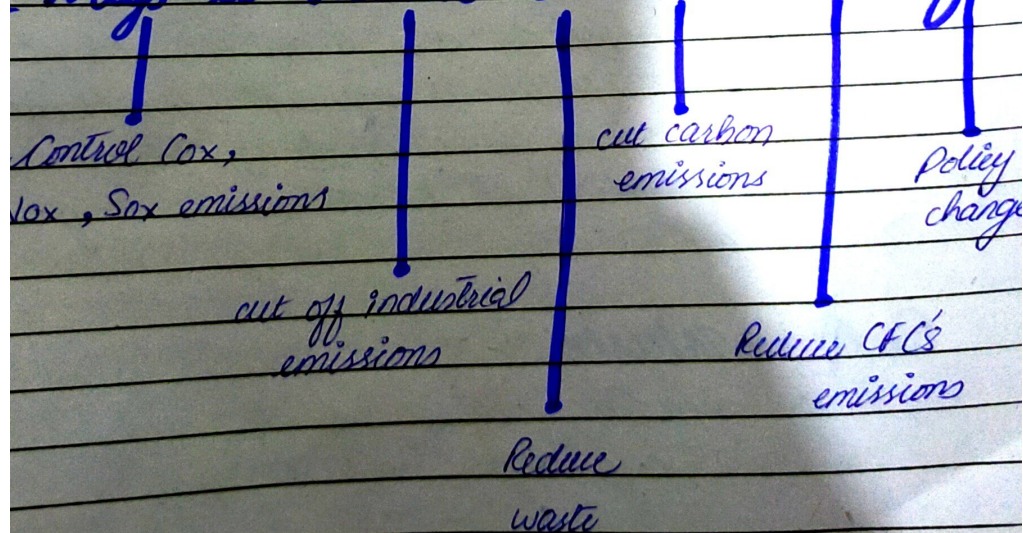
How global warming can be reversed?

Global warming refers to the annual increase in global temperatures. It is majorly caused due to anthropogenic activities and has yielded devastating consequences for humanity, animals and environment.

According to researchers, if the causes of global warming gets out of control, it would result in an increased temperature until 2050.



Ways to Reverse Global Warming



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Control on CO_x, NO_x, SO_x emissions
Carbon, nitrogen and sulphur oxides and their emissions are the leading cause of global warming. It needs to be cut down in order to minimize the consequences.

Cutting down carbon emissions

The policies like (net zero) for cutting off carbon emissions are a great measure to preserve environment. Thus, in order to reduce the levels of global warming, the major contributor (CO_x) needs to be cut off.

Reduce CFC's emissions

By cutting off chlorofluorocarbon emissions can help to promote stable environment. As it is a major cause of ozone depletion. Thus, it needs much attention to control the emissions.

Cutting off Industrial emissions

Industrial emissions are a major cause of air, water pollution as well as certain toxins are also contributing to global warming. So reducing industrial emissions will give positive results.

Reduce Waste

Reducing, recycling waste can also help to minimize pollution, as well as, global warming.

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Policy change.

The governments, NGOs, environmental inspectors can make a strict policy in order to save the world against this disaster.

* Previous policy and summits on climate impacts, CDD++, Montreal Protocol, Kyoto protocol, Agenda 21, earth summit

'And no challenge poses a greater threat to future generations than climate change.'

~ Barack Obama

— (Qb) —

Define Ceramics. Give properties and applications of ceramics

'A ceramic is an inorganic non-metallic solid made up of clay that have been shaped and then hardened by heating to high temperatures.'

Properties Of Ceramics

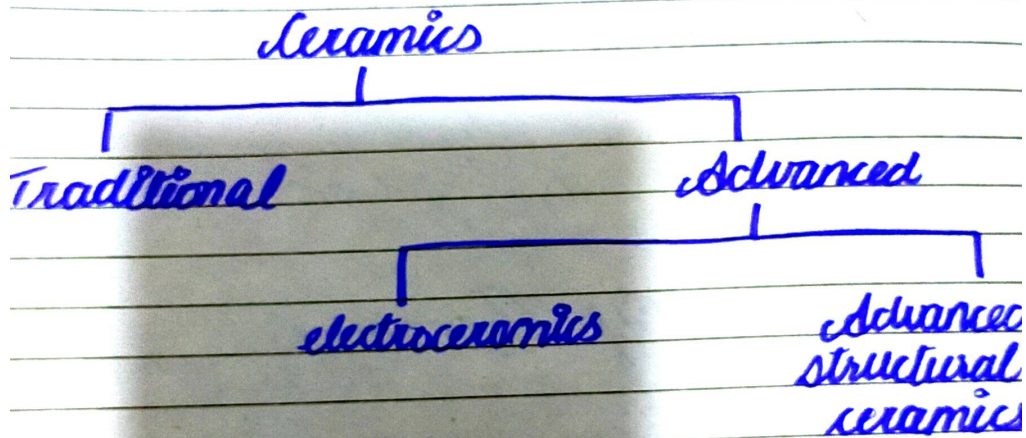
1. Ceramics are hard
2. Extremely strong, showing considerable stiffness under compression and bending.
3. Wear-resistant and durable.
4. Have high melting point.
5. Corrosion-resistant
6. Oxidation-resistant.
7. Brittle
8. Less elasticity
9. Inert to chemical actions

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10 Thermal Insulators.

Applications Of Ceramics

1. Microscope
2. Consumer usage
3. Construction
4. Automobile Industry
5. Medical (Bio-ceramics)
6. military equipment
7. Nuclear ceramics
8. Computers
9. Optical ceramics
10. Pyroceramics

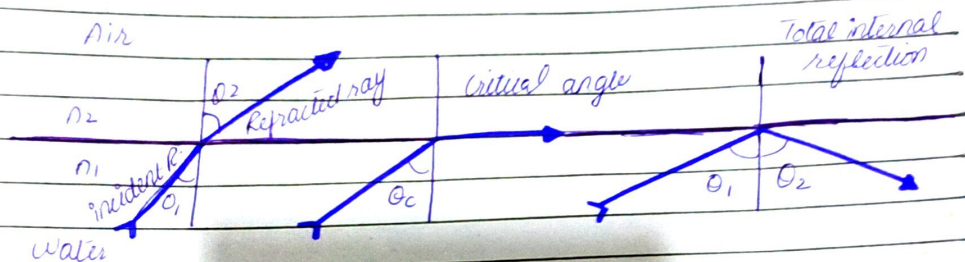


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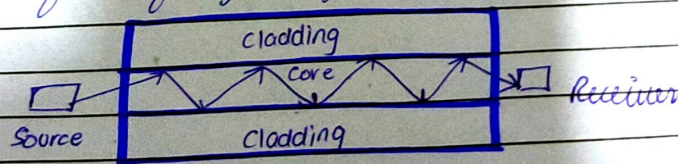
Qc Explain the working of: Optical Fibres.

Optical fibres refers to the medium and tech associated with transmission of information as light pulses along a hollow glass tube or plastic wire.



Working Of Optical Fibers

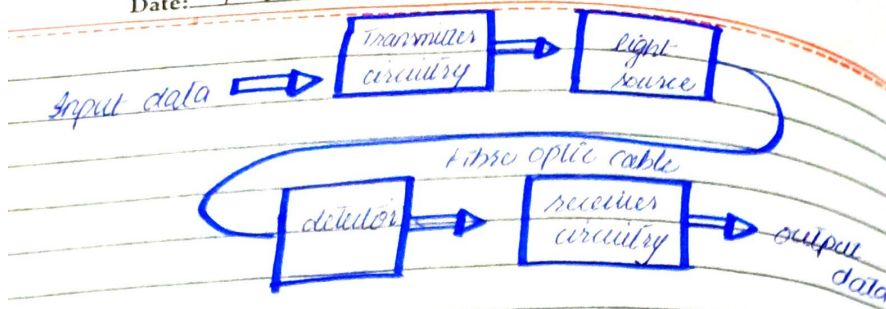
It involves the transmission of signals in the form of light from one point to another.



1. Input data in form of electrical signals
2. It is given to transmitter circuit, it converts electrical signals into light signals.
3. The light source is carried by a fiber to the destination circuitry.
4. The receiver consists of a photo detector with electronic circuit.

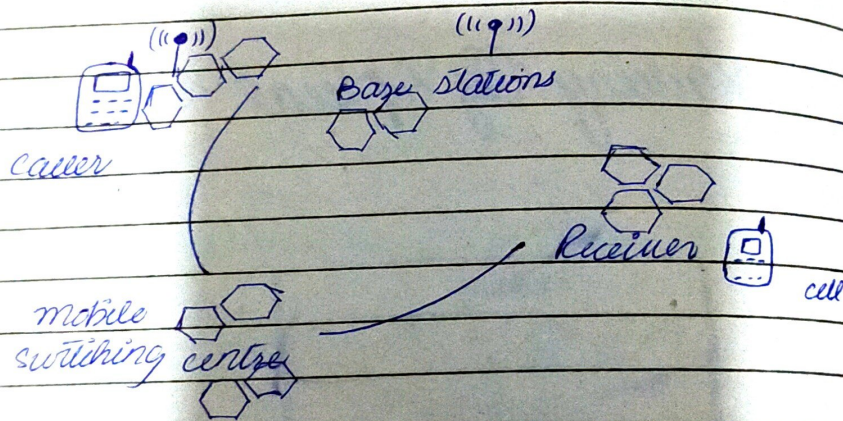
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Mobile Phone

Mobile phone works by converting voice / data into digital signals, which are transmitted as radio waves to nearby cell towers.



1. Voice / data → digital data
2. Digital → Radio waves
3. Cell Towers and Networks
4. Receiver's phone
5. Cellular architecture

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—(d)—

Define the following and give examples

Food Additives

The substances which are added to the food while processing or packaging to enhance its shelf life and taste are known as food additives.

examples: flavouring agents, stabilizers, preservatives.

Food preservatives

It prevents or slows down the growth of bacteria or fungi, so that food can be kept longer.

Food adulteration

It is an intentional act of adding substances that lower the quality of food by addition of inferior substance or removal of some valuable ingredient.

Example: insects, rodent hair, starch, stones and pebbles in lentils and rice, papaya seeds in black pepper.

Food Contamination

The pollutants that contaminate the quality of food by adding poisonous substances.

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Section - B

— Q8 —

(a)

D house is in the middle

i. A is to the right of B.

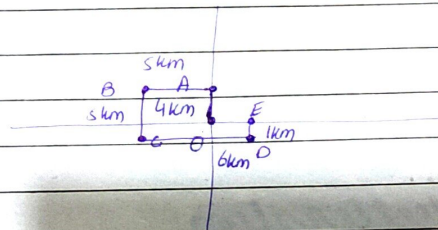
ii. E is to the left of C and right of A.

iii. B is to the right of D

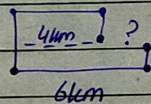
ECDBA

So, D is in the middle

(b)



i. About 2 km away from the place I started



$$4\text{ km} - 6\text{ km} = 2\text{ km}$$

ii. Towards ~~west~~ North

iii. Towards West

iv. Towards West in order to reach the point I started.

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(c)

- a. THRSI = SHIRT
- b. AOTC = COAT
- c. EOUBSL = BLOUSE
- d. KTRIS = SKIRT
- e. RETAEWS = SWEATER

(d)

How many triangles can you find in the diagram.

There are 34 triangles in the diagram

(Q6)

a.

a Mother in law.