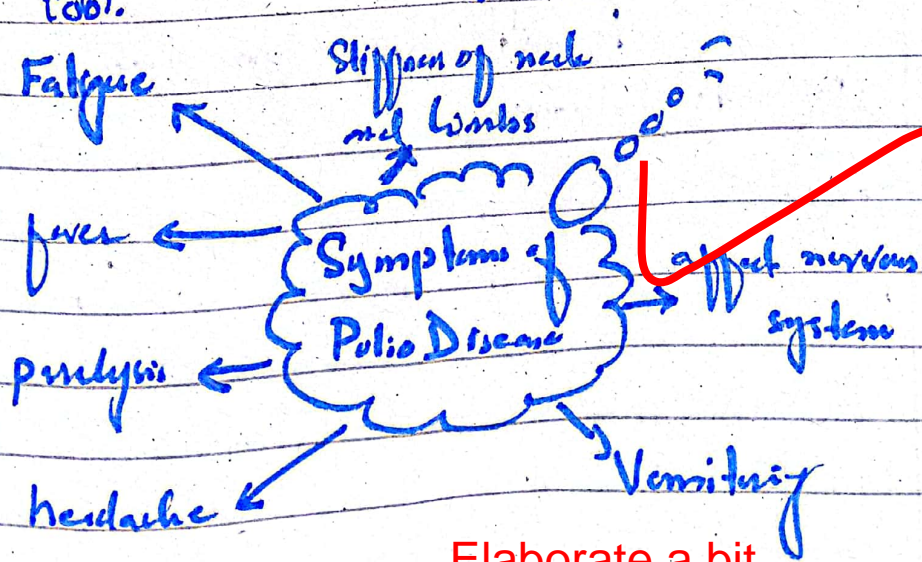


Q1) Describe Polio disease. Its symptoms and immunisation of polio vaccine.

Answer Polio  
Polio is a viral disease. It affects young children. Moreover, polio is caused by poliomyelitis (polio virus). Hence, it is a viral disease that affects young children.

### Symptoms of Polio

Symptoms of polio disease includes, fatigue, stiffness of neck and limbs, high fever, paralysis, and headache. Moreover, polio virus attacks nervous system. A polio affected young often do vomiting too.



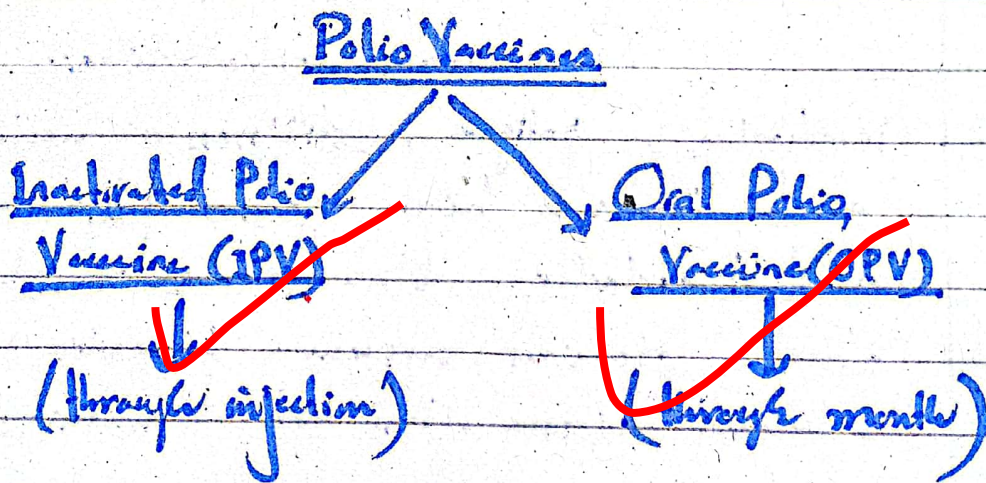
Elaborate a bit

## Prevention of Polio

There is no cure of polio, only immunization of vaccine of polio virus can prevent from polio disease.

## Immunizing Polio Vaccine

Two types of Polio Vaccine are as:



A child have four doses of IPV as follows:

<u>Age of child</u>	<u>Dose of Vaccine</u>
2 months	(IPV)
4 months	(IPV)
6 to 18 months	(IPV)
4 to 6 years	(IPV)

Give a short concluding sentence here

Qb) Define optical fibre. Also describe its types parts.

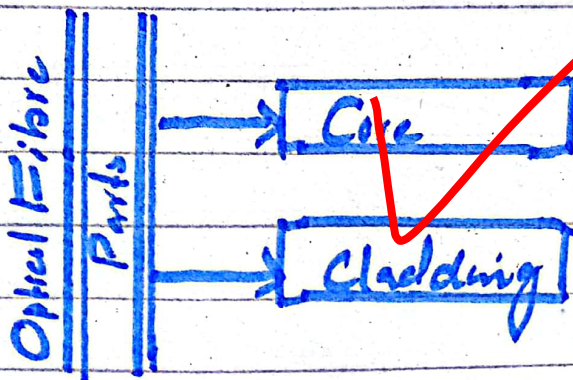
Answer

## Optical Fibre

Optical Fibre is a strand of glass that transmit light rays from one point to another point for the purpose of telecommunication. In fact, optical fibre is useful for telecommunication and process for it.

## Parts of Optical Fibre

Two parts of optical fibre are as below:



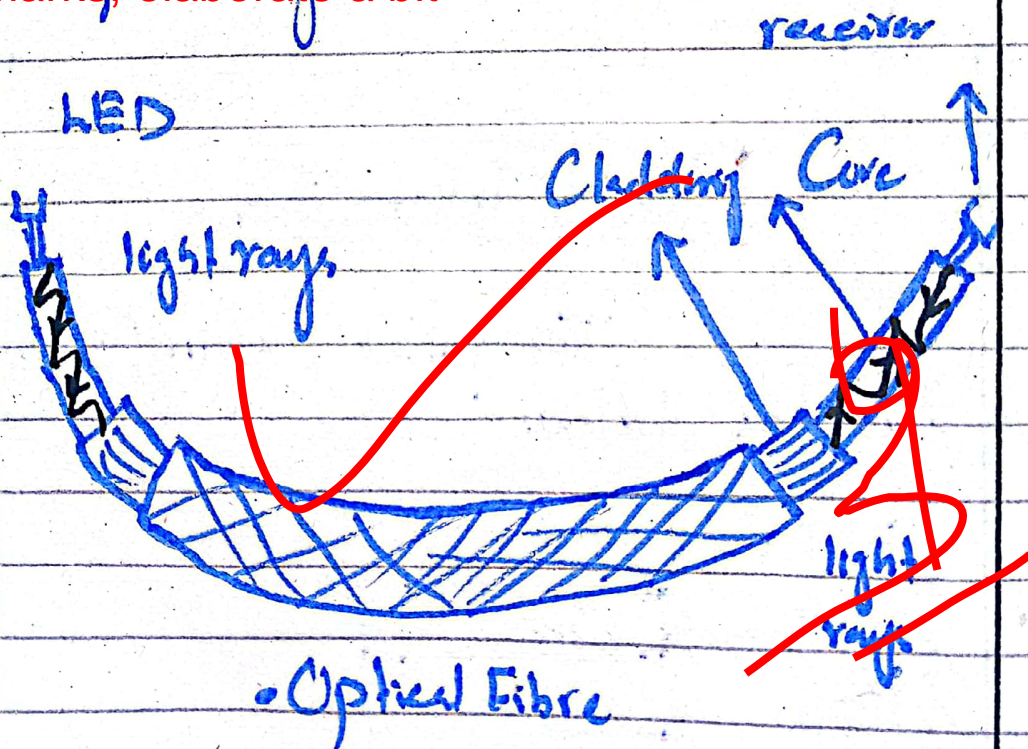
a) Core of Optical Fibre  
Core is centered

part of optical fibre. It has high density and high refractive index. Moreover, it bends light highly enough.

### b) Cladding of Optical Fibre

Cladding is a surrounding part over core of optical fibre. In fact, it has low density and low refractive index. It bends light very low.

For five marks, elaborate a bit



Qc) Define Hepatitis disease. Its symptoms and diagnosis of hepatitis.

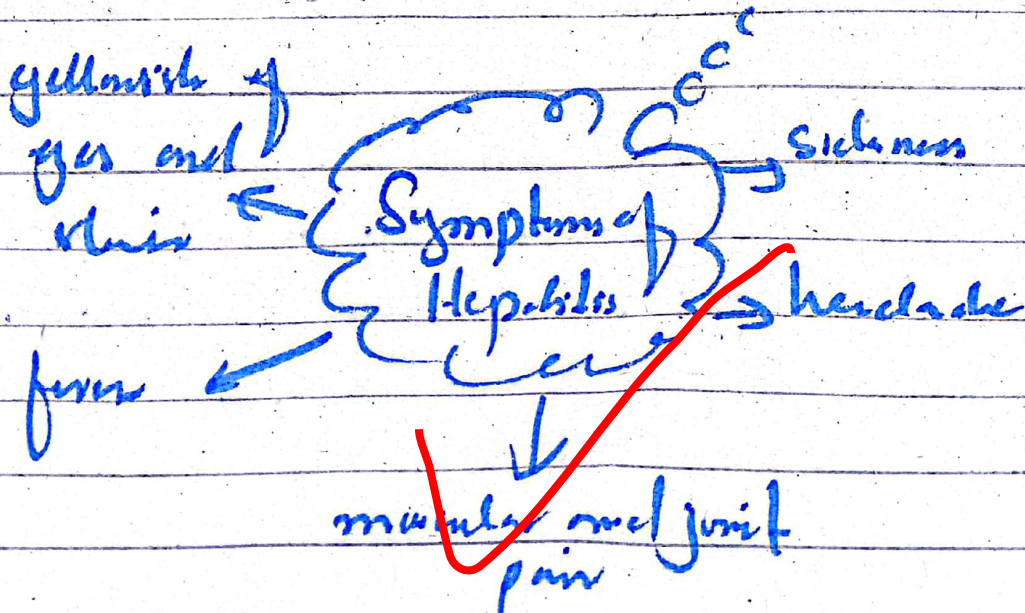
Answer

## Hepatitis

Hepatitis is an inflammatory disease of liver. In fact, it is also a viral disease like polio. Hence, hepatitis is a viral disease that affects liver functioning adversely.

## Symptoms of Hepatitis

A hepatitis patient feels sick, headache, having yellowish color of eyes and skin. Moreover, he/she suffers from a high temperature of  $38^{\circ}\text{C}$  or  $100.4^{\circ}\text{F}$ . He/she also feels muscular and joint pain.



## Diagnosis of Hepatitis

Diagnosis of hepatitis can be done as follows:

### a) Liver Biopsy

Liver biopsy is a test of liver tissue. Liver biopsy helps in recognition of liver functioning capacity. Hence, liver biopsy is a test of diagnosis of hepatitis.

### b) Liver Functioning Test (LFT) of Liver

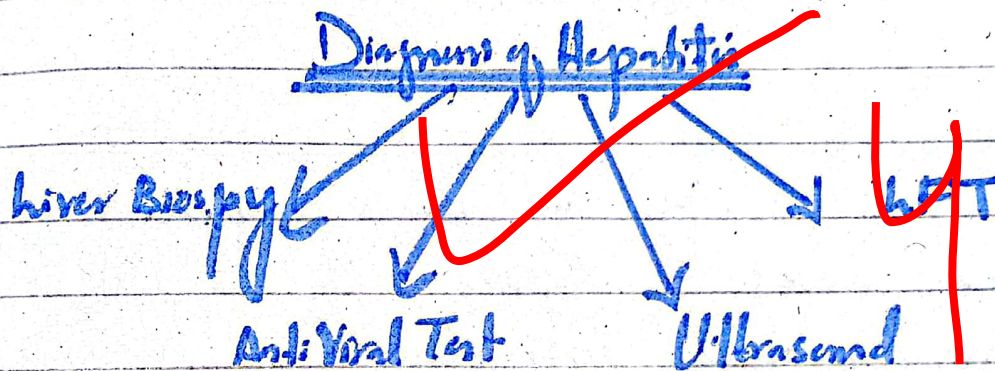
Moreover, LFT will help in understanding liver functioning process. So, first, a blood sample is taken and diagnosis of hepatitis is clear from LFT of a patient.

### c) Ultrasound of Liver

Further, ultrasound helps in diagnosis of liver functioning. UV rays help in hepatitis diagnosis.

## d) Anti-Viral Test of liver

Antiviral test is another method of diagnosis of hepatitis. It helps to identify type of virus. Hence, anti-viral test plays a role in diagnosis of hepatitis.



Concluding line

Qd Describe biofuel/bio-energy and its advantages

Answer

## Biofuel/Bio-energy

Bio-fuel is a type of renewable energy source. In fact, bio-fuel can be converted into liquid form such as ethanol. In fact, Pakistan has sufficient capacity of generation of bio-fuel energy.

✓ About 5,500 MW of energy can be

produced from biofuel.<sup>3</sup>  
(The World Bank)

Therefore, biofuel is a source of alternative energy generation.

### Advantages of biofuel

Advantages of biofuel are as below:

a) Renewable source of energy - clean energy

Biofuel is a source of clean energy. Hence, it is environmental friendly.

b) Efficient energy production

Biofuel energy reduces energy crisis in Palestine. Hence, biofuel energy is efficient source of energy.

c) Economic stability: reduce dependency of imported hydrocarbon

Moreover, biofuel energy helps in reducing economic crisis. Dependency on hydrocarbon is



replaced by biofuel energy.

d) Environmental and health friendly

Biofuel energy reduces health hazards as it promotes clean energy. Hence, biofuel energy is health friendly, too.

