**Name:** **Irfan Ullah**

**ID #** **14854**

**Subject** **: Mycology and Parasitology**

**Q.1**

Answer : causative agent are Aspergillus Fumigatus

. condition is Allergic brancho pulmonary aspergillosis .

Possible diagnosis;

Imaging test. You may to test through X-ray of the chest or CT scan of your lungs or of those parts of the body which are suspected

Blood test;

In severe immune compromised person blood test can help in diagnosis

**Q.2**

**Answer:**

**1. Definitive host** ; The organism in which the parasite are developing and reaches into its mature from

**Example** Malarial parasite use female Anopheles mosquito as difintive host for maturation

**2. Intermediate host;** The organism in which the parasite are developed only.

**Example.** Malarial parasite use human for development

**3. Vector ;** A living organisms Which act as a carrier that transfer the pathogenic organism from an infected host to a non infected host

**Example .** The female Anopheles mosquito that transfer malaria

**Q.3**

**Answer:**

**Transmission :** primarily plasmodium is transmitted by female Anopheles mosquito bites but can transmit through placenta by blood transfusion and also by intravenous drug abuse

**Life cycle of plasmodium**

Two phases

**1 Asexual phase**

**2 sexual phase**

**Asexual phase ;** This phase are occur in intermediate host (humans) also called schizogony because schizonts are produces

The life cycle in human begin when the sporozoites are enter into the blood from saliva of biting female Anopheles mosquito

The hepatocytes taking the sporozoites within 30 minutes. this exoerythrocytic phase consists of multiplication and differentiation into merozoites

Liver cells release merozoites which infect red blood cells

The organism are differentiates into a ring shaped trophozoites . During the erythrocytic phase then grow and differentiate into schizonts which fill with merozoites are released from the schizonts cell which infect the red blood cells

**Sexual phase**

Primarily occur in mosquito , also called sporogony because of sporozoites are formed

The sexual cycle begins when some merozoites are convert into male and others into female gametocytes

When female Anopheles mosquito bite the infected person it suck the red blood cells having merozoites develop into a female macro gamete and eight sperm like male micro gametes in their gut

After the fertilization a motile ookinete are produce that burrow into the gut wall where it grows into oocysts where Which produce many haploid sporozoites

Sporozoites are release into the salivary gland of female Anopheles mosquito and ready to complete the cycle

~~Thanks~~