



**MBBS SECOND PROFESSIONAL**  
**MODEL PAPER FOR ANNUAL 2009**  
**General Pathology and Microbiology**  
**(Short Essay Questions)**

Max. Marks 70

Time Allowed 2 hours

1. a) Define chronic inflammation. Give TWO characteristics of chronic inflammation. 1,1  
b) Enumerate THREE causes of chronic inflammation. 3
2. The causes of cell injury range from the gross physical trauma of a motor vehicle accident to the single gene defect that results in a defective enzyme underlying a specific metabolic disease:  
a) Mention six major categories in which they can be grouped. 3  
b) List four potentially toxic agents encountered daily in our polluted environment. 2
3. An American PREDATOR fired two HELL FIRE missiles on a remote house in North Waziristan. Many family members died, but a few survived despite lack of medical or surgical treatment. There was excessive loss of cells and tissues and large defects were created on the body surfaces with extensive loss of normal architecture:  
a) What will be this type of healing known as? 1  
b) How does it differ from primary healing? 4
4. A 35-year old female patient of type II diabetes mellitus cut her hand with a knife in the kitchen; the wound failed to heal even after two weeks:  
a) What cause/causes of delayed healing you would suspect in this patient? 1  
b) List four other local/systemic factors that influence wound healing. 4
5. A child brought to a pediatrician was found to be mentally retarded, had flat facies with epicanthal fold, Siamese crease, abundant neck skin, umbilical hernia and hypotonia with increased gap between first and second toe:  
a) What is this child suffering from? 1  
b) What is the chromosomal abnormality and what is its cause? 1  
c) In addition to phenotypic abnormality and mental retardation, name three other clinical features worthy of note? 3
6. Name five CHEMICAL CARCINOGENS which can affect LUNG, SKIN, PROSTATE, STOMACH and the HEMOPOITIC SYSTEM of the body. (One Each) 5
7. Tuberculosis is an important public health problem in Pakistan and WHO has declared it a global emergency:  
a) What is the basis of tuberculin test? 1  
b) Give four other examples of T Cell-Mediated type IV hypersensitivity? 4
8. Now Sexually transmitted diseases (STD's) are amongst the commonest infectious diseases worldwide. More than 20 STD's have been identified. The incidence of STD's is rising, in the last few decades.  
a) Name SIX diseases or infections included in the list of STD's by the WHO. 3  
b) Mention FOUR reasons attributed to this increase. 2
9. Women of child bearing age are far more prone to UTI's than men because of the shortened urethra:  
a) Enlist two bacteria in order of frequency which can cause UTI in women of child bearing age. 1  
b) Give four risk factors, which predispose to UTI. 4

10. Mycobacterium tuberculosis has a complex cell wall which confers many properties to the organism:
- Why is heating required in the staining process in the Zeihl Neelson method? 1
  - Name four complex lipids and the properties they confer to the Mycobacterium. 4

11.

## The Sydney Morning Herald

The above mentioned newspaper reported the following news item.

### SMUG AS A BUG:

"He was so sure he was right and conventional medical wisdom wrong about the cause of stomach ulcers that he swallowed bacteria to prove his point. Now once-skeptical peers are talking about a possible Nobel prize. MELISSA SWEET reports." Saturday, August 2, 1997

Finally Barry **Marshall** and Robin **Warren**, got half the Nobel prize each, in 2005, by proving that most stomach ulcers and gastritis were caused by infection by this bacterium and not by stress or spicy food as had been assumed before:

- Which bacteria was one of them talking about? 1
  - How were Koch's postulates fulfilled to prove, whether an organism was pathogenic in the disease it caused in this case. Narrate in less than seventy words? 4
12.
  - Name the protozoan which affects the maximum women in the world. 1
  - Give its route of infection. 2
  - Mention two symptoms produced by this protozoan. 2
13.
  - What is the name given to the study of the most common infectious agents? 1
  - Give three properties of the infectious agent which makes them differ from bacteria. 3
  - Name an infectious particle smaller than this particle. 1
14. Nearly 300 of the 100,000 to 200,000 species (depending on how they are classified) are thought to cause disease.
- What is the study of these organisms known as? 1
  - Classify mycosis in FOUR groups. 4