Time: 3 hours  
Max. Marks: 100

Important instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

1. Classify mycoplasma and enumerate the various mycoplasma associated with humans. Briefly describe the pathogenicity and laboratory diagnosis of Mycoplasma pneumoniae.  
   (2+2)+(2+4)

2. Enumerate various bacterial zoonotic diseases with their causative agent. Briefly write on the epidemiology and recent advances in the laboratory diagnosis of human brucellosis.  
   3+(2+5)

3. Briefly describe the various Shigellae with special reference to their pathogenicity and laboratory diagnosis.  
   4+4+2

4. Enumerate the various invasive and non-invasive infections caused by H.influenzae. Briefly describe its characteristics on various media used for its isolation. How will you prevent its infection?  
   3+5+2

5. Briefly write on the various virulence markers, epidemiology and advances in prophylaxis of S.pneumoniae.  
   3+3+4

   1+4+5

7. Write briefly on various types of botulism and its laboratory diagnosis.  
   6+4

8. Enlist opportunistic fungal infections in an AIDS case and discuss the clinical presentation, pathogenesis and laboratory diagnosis of cryptococcal infections.  
   2+2+2+4

9. Enumerate the conditions and causative agents of fungal infections of the hair. Briefly describe the laboratory diagnosis of each condition.  
   4+6

10. Enumerate the various virulence factors of S.aureus and briefly write their role in human disease.  
    4+6

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