

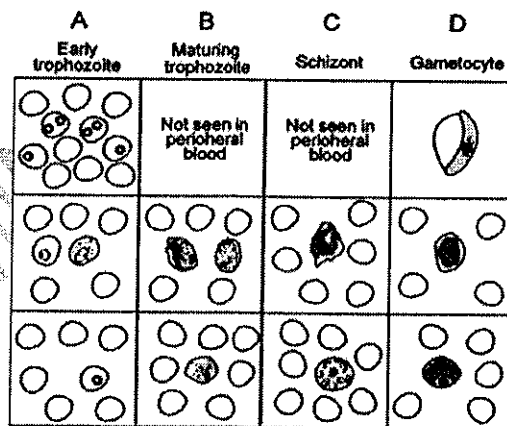
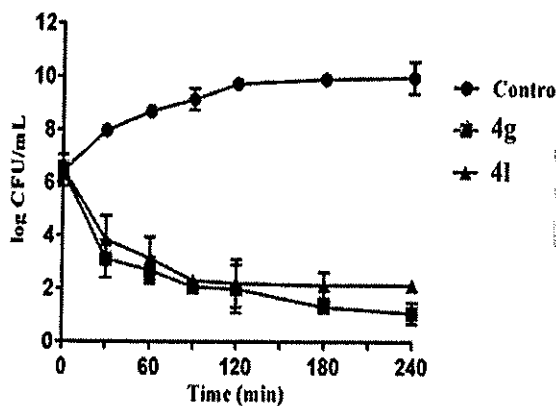
*Note: All questions are compulsory. Marks are indicated against each question in square brackets.*

Q1a). How the infectious disease pose economic impact globally. Explain with an example of recent outbreak of corona infection. [3]

b) Explain Disability-Adjusted Life Year (DALYs) [2] [CO II]

Q2A). Interpret the following graph (in figure A) for growth of *S. aureus* in presence of test compound 4g and 4l and give your findings. [2] [COIII]

B) Study the Figure B and indentify various forms of malaria [2] [COIII]



C) How the following factors affects susceptibility to Malaria a) Surface protein on Red Blood Cell b) Sickle cell disease. [2][COIII]

D) Explain the brief, how malaria is caused by *plasmodium falciparum*. What are the current recommendations for malaria treatment, and what are the factors that dictate the regimen of choice? [4] [COIII]

Q3. Explain outcome associated with exposure to *Mycobacterium tuberculosis*. What is MDR TB? Explain therapeutic regimen used for tuberculosis and resistance mechanism adopted by the *Mycobacterium tuberculosis* bacteria? [5] [COIV]

Q4. Compare true and opportunistic fungal infections. How to identify fungal isolate from biological sample? Explain by taking one suitable examples. Which classes of drugs are used to treat fungal infections? [5] [COIV]