





# MICROBIOLOGY HSSC-II

Time allowed: 2:20 Hours

Total Marks Sections B and C: 40

**NOTE:** Answer any THIRTEEN parts from Section 'B' and any TWO questions from Section 'C' on the separately provided answer book. Use supplementary answer sheet i.e. Sheet-B if required. Write your answers neatly and legibly.

## SECTION – B (Marks 26)

**Q. 2** Answer any THIRTEEN parts. The answer to each part should not exceed 2 to 4 lines. ( 13 x 2 = 26 )

- (i) What is systemic mycosis? Also enlist pathogens causing this disease.
- (ii) Draw, label and describe egg of *Schistosoma mansoni*.
- (iii) Which parasite(s) can be seen in CSF?
- (iv) What will be the total magnification of microscope with 40x objective, 10x eyepiece and mechanical tube length of 160mm?
- (v) Briefly enlist signs and symptoms of Chagas disease.
- (vi) What are general characteristics of moulds? Also enlist medically important moulds.
- (vii) Draw, label and describe schizonts of *Plasmodium vivax*.
- (viii) What is difference between fungi and actinomycetes?
- (ix) What are the advantages of thick and thin film in diagnosis of malarial parasite?
- (x) What is meant by definitive host? Name the definitive host in case of *Taenia saginata*.
- (xi) Describe the term "Coccidia" with examples.
- (xii) Enlist microbial pathogens transmitted by Household fly.
- (xiii) Enlist the structures found in faeces that require differentiation from parasites.
- (xiv) Why only female mosquito takes a blood meal?
- (xv) Why is the immersion oil used while reviewing a slide under 100x objective of a light microscope?
- (xvi) How *Schistosoma* species are transmitted?
- (xvii) Describe signs and symptoms due to strongyloidiasis.

## SECTION – C (Marks 14)

**Note:** Attempt any TWO questions. All questions carry equal marks. ( 2 x 7 = 14 )

- Q. 3** Enlist at least five species of dermatophytes. Describe the laboratory techniques and microscopic examination to identify dermatophytes infection in respective specimen types. Draw a figure.
- Q. 4** Describe the life cycle, pathogenicity and laboratory diagnosis of *Leishmania donovani*.
- Q. 5** Discuss lifecycle, pathogenicity and laboratory diagnosis of *Enterobius vermicularis*.