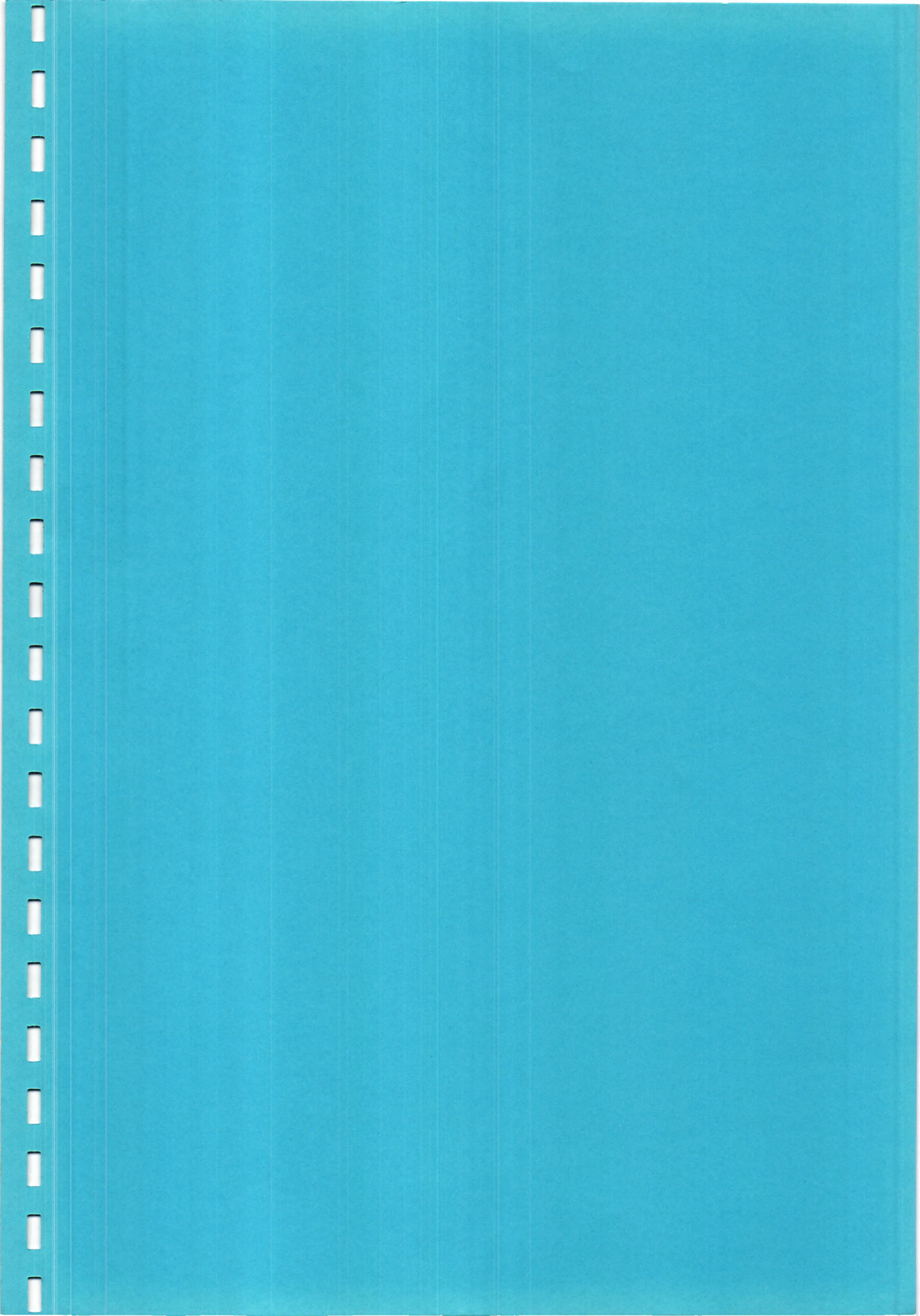


KATHMANDU UNIVERSITY
End Semester Examination
March/ April, 2017

Marks Scored:

Level : B.Sc.
Year : I

Course : HBIO 102
Semester : I



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Exam Roll No. :

Time: 30 mins.

F. M. : 20

Registration No.:

Date :

APR 11 2017

SECTION "A"
[10Q × 0.5 = 5 marks]

Choose and tick [✓] the most appropriate answer.

1. Water content of a normal man is
[] 50% [] 60% [] 55% [] 65%
2. Diameter of microfilament
[] 10nm [] 25nm [] 7 nm [] 15nm
3. Spherical bacteria in clump is called
[] Staphylococcus [] Streptococcus [] Tetrad [] Diplococcus
4. *ras* oncogene point mutation is detected in cancer of
[] bladder [] blood [] skin [] cervix
5.is a start codon.
[] UAA [] AUG [] UAC [] UAG
6. Which site of ribosome binds to the tRNA carrying the next amino acid to be added?
[] P site [] E site [] C site [] A site
7. Storage units of genes is
[] genome [] locus [] allele [] chromosome
8. Which of the following have highest bioavailability?
[] Intravenous [] Sublingual [] Oral [] Inhalation
9. Constant fraction of drug is eliminated from the body per unit time is
[] zero order kinetics [] first order kinetics
[] mixed order kinetics [] second order kinetics
10. In human, during menstrual cycle, ovulation occurs on.....day.
[] 14 [] 15 [] 16 [] 17

SECTION "B"
[10Q × 0.5 = 5 marks]

Fill in the blanks:

11. _____ serve as structural link for inner membrane to the cytoskeleton.

12. _____ are large invagination of cell membrane that can be associated with cell replication.
13. _____ is the chemical responsible for heat resistance of bacterial spores.
14. _____ protein is involved in braking mechanism that normally prevent cells from passing through G₁ restriction point.
15. The holoenzyme is responsible for _____ of transcription.
16. The pattern of bands in a gel electrophoresis is known as a _____.
17. _____ is used to select HGPRT⁻ cell.
18. Endotoxins are produced by Gram _____ bacteria.
19. Ebola virus is _____ in shape.
20. _____ causes kuru disease in humans.

SECTION "C"
[10Q. × 1=10 marks]

Define in one sentence:

21. Virulence:
22. Bioreactor:
23. Clone:
24. Viroids:
25. Mycology:
26. Spermatogenesis:
27. Pregnancy:
28. Bioavailability:
29. Receptor:
30. Metastasis:

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SECTION "D"

(Long answer questions)
[4Q. × 7 = 28 marks]

Answer ANY FOUR questions.

1. Describe the Female Reproductive System of human with labelled diagram.
2. Write different pattern of genetic inheritance along with example.
3. Write the parameters of pharmacokinetics. Explain the different factors which affect the drug absorption.
4. Explain the process of DNA replication in Eukaryotes.
5. Explain the genetics of cancer.
6. Briefly describe the structure of virus and process of viral replication.

SECTION "E"

(Short answer questions)
[5Q. × 4 = 20 marks]

Answer ANY FIVE questions.

7. Describe the negative feedback mechanism.
8. Describe the process of hybridoma technology.
9. Explain the ultra structure of cell membrane.
10. Describe the different types of organ transplantation.
11. Explain the methods of cancer treatment.
12. Explain the Female Hormonal Level throughout the menstrual cycle.

Differentiate between:

13. Gram positive and Gram negative Bacteria [4]
14. Polyclonal and monoclonal antibodies [3]

