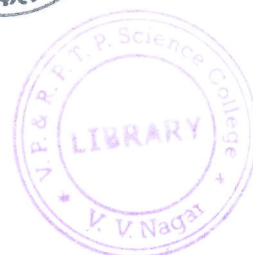




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VALLABH VIDYANAGAR-388120



Bachelor of Science (Semester 4) Internal Examination - 2026
US04MAZOO02, PHYSIOLOGY

Date: 09/03/2026

Time: 2:45 P.M to 4:15 P.M

Total marks :30

Q-1 Multiple choice questions.

(6 Marks)

1. Calcium binds to which protein to initiate contraction?

- a) Actin b) Troponin c) Myosin d) Tropomyosin

2. Which type of muscle is involuntary and striated?

- a) Smooth b) Skeletal c) Cardiac d) Visceral

3. The functional unit of the kidney is called

- a) Glomerulus b) Alveolus c) Neuron d) Nephron

4. The Loop of Henle is mainly responsible for

- a) Filtration b) Storage of urine c) Secretion d) Concentration of urine

5. Hormone responsible for ovulation is:

- a) LH b) FSH c) Estrogen d) Progesterone

6. The largest lymphatic organ in the human body is

- a) Lymph node b) Spleen c) Tonsil d) Thymus

Q-2 Describe the microscopic structure of skeletal muscle with labelled diagram. (6 Marks)

OR

Q-2 How muscles are getting energy during muscle contraction? Explain the sources. (6 Marks)

Q-3 Write down the structure and function of kidney with label diagram. (6 Marks)

OR

Q-3 Explain the mechanism of formation of diluted and concentrated urine. (6 Marks)

Q-4 Describe the male reproductive system with labelled diagram. (6 Marks)

OR

Q-4 Explain the different phases of menstrual cycle. (6 Marks)

Q-5 Write a note on Non-specific resistance. (6 Marks)

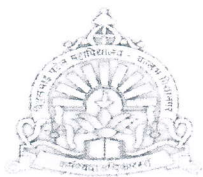
OR

Q-5 Write about any two auto immune diseases. (6 Marks)

No of printed pages: 01

Supervisor sign.....

Seat No.:



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B.Sc. (Semester -4) Quiz - 2026 US04MAZOO02, PHYSIOLOGY

Date: 9-03-26, MONDAY

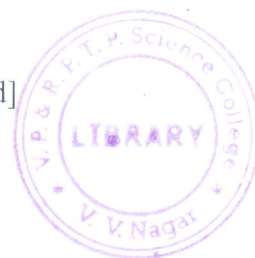
Time: Maximum 20 minutes

Total marks: 15

Q-1 Fill in the blanks with appropriate answer given in the bracket.

[08]

1. Calcium ions are released from the _____ during muscle contraction.
[Sarcoplasmic reticulum / Mitochondria]
2. Cardiac muscle fibers are connected by _____ discs. [T-tubules / Intercalated]
3. The tube that carries urine from the kidney to the bladder is the _____.
[ureter / Bowmen's capsule]
4. The normal pH of urine is slightly _____. [acidic / basic]
5. Fertilization normally takes place in the _____. [uterus/ Fallopian tube]
6. AIDS is caused by the _____ virus. [HIV/ herpes]
7. The organ where T-lymphocytes mature is the _____. [Bone marrow/ thymus]
8. Memory cells help in producing a _____ immune response. [Primary/secondary]



Q-2 Whether the following statement is true or false. Write your answer in the box

[07]

1. Skeletal muscle contraction is faster than smooth muscle contraction. []
2. Smooth muscles are under voluntary control. []
3. The urinary system plays no role in maintaining blood pH. []
4. The average menstrual cycle lasts about 28 days. []
5. Colostrum is the first milk produced after childbirth. []
6. Lymph nodes filter blood directly. []
7. Acquired immunity develops only after vaccination. []