

**Birla Institute of Technology and Science, Pilani, Pilani-Campus, Rajasthan**  
**Mid-Semester-Examination: Second Sem. 2022-2023**

Course No.: PHA F214

Course Title: Anatomy, Physiology and Hygiene

Max. Marks: 32

Date: 29/04/23

Closed Book

Duration: 90 Minutes

Note: Give answers in points and use flow charts wherever possible for substantiation

Q-1: Explain the following with the help of a suitable example wherever deemed necessary: 3.0 M

- a) Holocrine and Apocrine Glands
- b) Chromosomes and chromatin
- c) Confusing epithelial tissue?

Q-2: How do female gonadal hormones regulate, synthesize by glands, and work in the body (receptor)? Explain with the help of suitable examples. 3.0 M

Q-3: Blood is around 5 liters that is circulated by the heart and during an emergency if needed, blood can be transfused. But, blood will be given based on the blood group. 6.0 M

- a) What do you mean by blood ABO System? Who invented it?
- b) If your blood group is AB + , how will you confirm it?
- c) How does Aplastic anemia differ from Pernicious anemia?
- d) Why does hemoglobin and hematocrit value decrease during pregnancy?

Q-4: Discuss the clotting process (Extrinsic and Intrinsic pathways). Give an example of anticoagulant and thrombolytic agent used in clotting diseases. 2.5 M

Q-5: a) Why does steroids not advised to be stopped suddenly and tapering of dose is advised? 3.0 M

b) How does stress in the younger generation increase the risk of cardiac disorders?

Q-6: How do hormones and bone cells be involved in Calcium regulation in your body? 2.0 M

Q-7: Comments on the following with the help of suitable reasoning 7.5 M

- a) Why do viruses not use erythrocytes as host cells?
- b) How does your body adjust to breathing difficulty at higher altitudes?
- c) Renal failure patients have risk of anemia?
- d) Ganglia and plexus are absent in the autonomic nervous system?
- e) Unmyelinated neurons have faster conduction?

Q-8: Why pancreas is called heterocrine/ composite gland? 1.0 M

Q-9: Write the steps involved in the sliding filament theory of muscle contraction. 2.0 M

Q-10: Identify, in which organ they present and which nervous system regulates their activity? 2.0 M

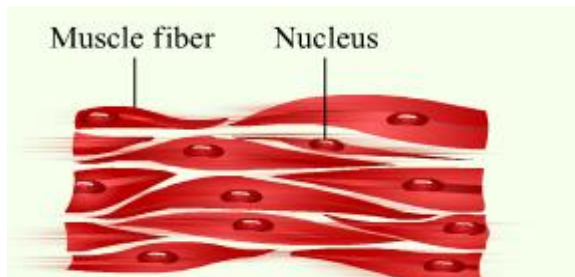


Fig-1



Fig-2

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