

**Birla Institute of Technology and Science, Pilani, Pilani-Campus, Rajasthan
Comprehensive-Examination**

Course No.: PHA F214

Second Sem. 2022-2023

Course Title: Anatomy, Physiology and Hygiene

Closed Book

Max. Marks: 40 (26+14)

Date: 15/07/2023

Max. Time: 180 Minutes

Be specific and write legibly

Part-A: Closed Book Max marks: 26: Time: 80 Min

Q-1: Explain the followings: 4.0 M

- i) Pheochromocytoma ii) Paroxisomes and lysosomes iii) Condylloid and Pivot joints
- iv) Annuloplasty and Aneurysm

Q-2: What are different hormones synthesized by adrenal glands? 1.5 M

Q-3: What do you mean by Conduction and neural deafness? 1.5 M

Q-4: Discuss the functions of different lymphocytes? 1.5 M

Q-5: Eye is one of the most important but complex sensory organ parts of the body. The different parts of the eye allow to adjust the light and perceive objects around us. The colour of eye may be vary in population.

- a)How do lens of eye be adjusted in near and far vision? 3.0 M
- b) How, cataract and Glaucoma occur in older age?

Q-6: Which glial cell of PNS and CNS wrapped the neuron with myelin sheath and why? 1.5 M

Q-7: Discuss with example, how does intestinal hormones contributes in digestion? 3.0 M

Q-8: What do you mean by bomarkers?Draw a representative-ECG for MI and Brugada syndrome. 2.5 M

Q-9: What are the functions of different uterus wall? 1.5 M

Q-10:Comments on the followings with proper justification? 6.0 M

- a) The symptom i.e swelling of neck occured in both Grave and Goiter?
- b) Mature sperm is produced by testes in male?
- c) Pineal gland -prevent the onset of puberty before the appropriate age.
- d) Cartilages heal slowly as compared to smooth muscle?

**Birla Institute of Technology and Science, Pilani, Pilani-Campus, Rajasthan
Comprehensive-Examination**

Course No.: PHA F214

Second Sem. 2022-2023

Course Title: Anatomy, Physiology and Hygiene

Closed Book

Max. Marks: 40 (26+14)

Date: 15/07/2023

Max. Time: 180 Minutes

Part-B: Open Book Max marks: 14 (16.5): Time: 80 Min

Q-1: Comments on the following: 5.0M

- a) Hemophilia is more common in male?
- b) Somatic cells are diploid but why are human gametes haploid instead of diploid?
- c) Epinephrine is the main sympathetic neurotransmitter in brain?
- d) Expiration is a passive process in normal breathing?
- e) Papillary muscle -dysfunction or rupture may resulted MI?

Q-2: If you are studying, which part of eye is responsible to allow for sharp and central vision? 1.0 M

Q-3: a) As the person age grow, the lens become opaque, why? 2.0 M
b) Which part of the eye and how eye color be regulated?

Q-4: Explain the following with suitable reasoning: 6.0 M

- 1) If you will take a drop of Plasma and serum along with whole blood from pulmonary vein, placed them separately on three slides. What will you observe related to blood clotting?
- ii) **Pain killer-Aspirin not advised while PCM used to manage pain?**
- iii) Why you need to maintain isotonicity of a parenteral drug formulation ?
- iv) Why does swelling of neck occur in iodine deficiency?
- v) When you traveling by car or bus in higher altitude like hill area, you may feel squeezing pressure in your ear, why? How does your body manage it?
- vi) Why, some time you feel the pain is sharp and localized while sometime -very dull and not localized?

Q-5: Do interpret the below given ECG of a patient (PR, QRS, HR and T wave). Based on the ECG tracing, What might be the condition? 2.5 M


