

Birla Institute of Technology and Science, Pilani, Rajasthan
Mid. Sem. Examination: First Sem: 2023-2024

Course Title: PHA F 415

Course Title: Pathophysiology

Max. Marks: 30

Date: 10/10/23

Closed Book

Duration: 90 Min

Q-1: Explain the following:

6.0 M

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|---------------------------------|--|
| i) Wet and Gas Gangrene | ii) Pyknosis and Karyolysis |
| iii) Metaplasia and Dysplasia | iv) Phagocytosis: oxygen-independent killing |
| v) Hyperalgesia and Hemiagnosia | vi) Descending pain inhibitory pathway component |

Q-2: Pain and inflammation go hand in hand in some tissue injury. Inflammatory pain refers to increased sensitivity due to the inflammatory response associated with tissue damage. More painful condition with inflammation have been observed in joint pain disorders/diseases.

In joint inflammatory pain condition, most of the symptoms start overlapping and are difficult to diagnose without specific biomarkers for e.g in Gout and RA- inflammation, joint pain, and stiffness are observed.

- a) How does the diagnosis be done based on symptoms and biomarkers for diagnosis the RA and Gout inflammatory pain? 2.0 M
- b) Explain with the help of examples, what are the clinical approaches to prevent uric acid synthesis, uric acid degradation, and faster uric acid excretion? 3.0 M
- c) What are the symptoms of Sjögren's syndrome that may be present in RA? How could it be identified and managed clinically? 3.0 M
- d) How are margination, rolling, and Diapedesis processes facilitated during inflammation? 3.0 M

Q-3: Comments with suitable reasoning on the following (use example wherever deemed suitable):

6.0 M

- i) Opsonin may diminish phagocytosis response?
- ii) The κ -opioid- receptor modulator can produce analgesia but is associated with serious undesired side effects like respiratory depression?
- iii) Chronic irritation (chemical or physical) may result in metaplasia ?
- iv) Biological modifiers agents be useful in autoimmune diseases ?

Q-4: What do you mean by atrophy ? Explain, what are the pathological mechanisms involved?

3.0 M

Q-5: What do you extrinsic and intrinsic apoptosis cell death process?

2.0 M

Q-6: How will you identify the Burgada syndrome and MI, make representative ECG?

2.0 M

ALL THE BEST
