



**Birla Institute of Technology and Science, Pilani, Pilani-Campus, Rajasthan**  
**Mid Term- Examination: 1<sup>st</sup> Sem-2022-2023**

**Course Code and Title: PHA F 415: Pathophysiology**

Max. Marks: 32

Closed Book

Date: 02/11/22

Duration: 90 Min

**Instructions:** Answer all the questions. Be crisp and answer to the point

Q-1: What do you mean by pro-inflammatory cytokines? Explain with the help of suitable example, how cytokines modulation could be targeted to treat clinical problems. 3.0 M

Q-2: Patients with inflammatory joint disorders including arthritis and gout, represent a possible high-risk group to COVID-19 infection. Many patients were associated with Multisystem inflammatory syndrome in which different body parts become inflamed, including the heart, lungs, kidneys and brain.

a) How does the diagnosis be done based on symptoms for RA and Gout? Also, discuss the pathological mechanism-based drug class used for Gout treatment. 3.0 M

b) What are the symptoms and pathogenic mechanism of Sjögren's syndrome? 1.5 M

Q3: Comments/justify with the help of suitable reasoning to the following 9.0 M

- Padagra, a painful condition of the big toe, is a common symptom in RA patients?
- Chronic stress on the heart may resulted- hyperplasia as an adaptive response.
- Lepromin test is negative in lepromatous leprosy?
- Following years of exposure to irritating cigarette smoke- gradually the irritation and mucus secretion reduce, why?
- In apoptosis-Intrinsic death pathway: plasma membrane receptors-ligand-TNF- $\alpha$ /Fas-Fas –binding to start the process.
- NSAIDs -not prefer in asthma while steroids are used, why?

Q-4: Explain the following : 6.0 M

- i) Anti-CCP Antibody Test      ii) Mantoux skin test      iii) MDR and XDR –TB iv) Dystrophic and Metastatic calcification

Q-5: How does the heart maintain unidirectional blood flow? Why does papillary muscle damage result in heart failure? 2.0 M

Q-6: What are the pathological mechanisms based on kidney involvement targeted for treating hypertension, explain with the help of suitable example? 3.0 M

Q-7: a) What are the common symptoms of MI? Draw a representative ECG, for the diagnosis of MI and Torse de-points patient? 3.0 M

Q-8: How does pyrazinamide work –in Latent TB control? 1.5 M

\*\*\*\*\*

