

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

**Comprehensive- Examination, First Semester 2021-2022**

**Course Title : PHA F 415**

**Course Title : Pathophysiology**

Max. Marks: 13 +27 (40)

Date: 23/12/22

Open and Closed Book

Duration: 180 Min

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**PART-B Open Book**

**Max Marks: 13**

**Max.Time: 70 Min**

Q-1: Explain the followings:

2.0 M

- i) Zymogen and gastrinoma
- ii) Sub P and CGRP

Q-2:a) Why does pyrazinamide an essential component of Latent TB control in the community?

1.0 M

b) Why does GHON complex formed in tuberculosis infection? Some time the wheezing sound also started in patient, What causes wheezing in lung sounds?

1.5 M

c) Suggest the treatment for a INH resistant -TB patient.

0.5 M

Q-3: Bupropion be prefer in the treatment of problematic online game play-addiction in younger patients, why?

1.0 M

Q-4: Comments on the following with proper reasoning:

5.0 M

i) Why does chronic kidney disease patients be prone to anemia? What type of anemia is associated with chronic kidney disease?

ii) Why do you have sometime slow, dull and not-localized pain but sometime sharp and localized ?

iii) Chronic use of Aspirin/Indomethacin may be associated with peptic ulcer.

iv) Leukotriens antagonist can be used in Asthma but not NSAIDs, why?

v) Domperidone is the choice to prevent and treat nausea and vomiting but not metaclopramide in PD patient?

Q-6: Interpret the below given two ECG (a &b): What could be the condition based on the ECG and how it be treated ?

1.5 M



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PART-A Closed Book

Max Marks: 27

Max.Time: 110 Min

Q-1: How do RAAS and Adrenergic NS pathogenic mechanism involved in hypertension? What are the classes of drugs have been developed based on adrenergic NS, discuss with suitable examples?

3.0 M

Q-2: Ignorance and lack of knowledge for UTI and STDs, resulted sometime with very serious complication for e.g management of syphilis is quite easy if diagnose early but advanced stage may associated with complication including blindness. Most of the infections are due to -ve bacterial and viral infections that may increased the risk of many health related complications.

a) What are the symptoms and pathogenesis of Complicated Cystitis? How does it be managed ? 2.5 M

b) What are the clinical relevance of leukocyte esterase and nitrite dipstick test ? 1.0 M

c) How do enzyme inhibition be an effective approaches in HIV -STD infection? Discuss with the help of suitable examples. 3.5 M

d) During covid-19 infection, ant-RA drugs were used, why and how do they provide benefit? 1.5 M

Q-3: Identify the disease/disorders based on the symptoms? Write the pathogenesis and treatment for these clinical problem. 2.0 M



Fig-1



Fig-2

Q-4: What do you mean by miliary tuberculosis, MDR-TB and EDR-TB? Discuss the drug treatment strategy and how long is MDR -TB treatment should be, as per WHO? 2.5 M

Q-5: Differentiate between the following: 4.0 M

a) Systemic lupus erythematosus and Sjögren's syndrome      b) Cystitis and Pyelonephritis      c) Hemoglobin SS and Hemoglobin SC disease      d) Myelofibrosis and Lymphoma

Q-6: What is the function of the papillary muscles of the heart? If there is a blockage between the AV node and the AV bundle, the brugda syndrome, how will this affect the appearance on ECG? 2.0 M

Q-7: How does Erythema nodosum leprosum managed clinically? 1.5 M

Q-8: Comment on the following combinations: 2.0 M

- a) Nitrofurantoin and nalidixic acid should not be given together
- b) Dopamine and Levodopa can be combined

Q-9: Write the MOA and clinical condition in which the following used: 1.5 M

- i) Febuxostat
- ii) ceftazidime /cefepime and Trastuzumab

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