Birla Institute of Technology and Science, Pilani,

Pilani-Campus (Rajasthan)

Mid Sem. Examination: 2nd Sem:2021-2022

Course No: PHA G 611

Course Title: Advanced Pharmacology

Max. Marks: 28 Closed Book Date: 15/03/2022 Duration: 90 Min.

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<u>Instructions:</u> Answer all the questions. Be crisp and answer to the point

Q-1: Explain the followings with suitable example:

6.0 M

- i) Anticancer agents -marine sources ii) Schedule -H and Schedule-H1 drugs iii) Irreversible Suicidal enzyme inhibitor
- Q-2: a) What will you observe in ECG if a patient suffering with Torsade de pointes? Explain by drawing the ECG tracing-with suitable reasoning.

 3.0 M
 - b)How does the change/appearance to be observed on ECG for a MI and Brugda syndrome patient? What are the biomarkers along with ECG be taken into consideration to confirm it.
- Q-3: i) What do you mean by Lipinski's rule of five and BCS?

4.5 M

- ii) If BITS research group, made a New chemical entity and found it is highly soluble and highly permeable? How does it be confirmed?
- iii) When the group testing the formulation and placing- normal RBCs, resulted the lysis of the cells, why?
- Q-4: Comments on the following with suitable reasoning:

4.5 M

S.No	True/False	Justification/Reasoning
a		

- a) Epinephrine injection can be used to control anaphylactic reaction?
- b) Axons of some neurons in the CNS, may be forming a myelin sheath around the axons, why?
- c) Glycoprotein IIb/IIIa receptor contribute in CVS disease, how, explain with the help of example

Q-5: During Covid -19 pandemic, anxiety, fear and tress is believed a strong risk factor and major contributor for respiratory distress and CVS disorders. Ms. Sarita Devi, a 34 years old patients was admitted in hospital with high B.P. She had history of respiratory problem, she complained respiratory difficulties- in breathing, coughing and sneezing after treatment started by local nurse. After 2 weeks, 3rd generation beta blocker is suggested to be started

4.5 M

- a) How does stress can increase the risk of CVS problem?
- b) What 3rd generation beta blocker drug to be suggested to this patient and why?
- c) Suggests the antihypertensive drugs/ class in pregnancy.

Q-6: Write the clinical class and MOA of the following:

2.0 M

a) Nicorandil and Ivabradine

- b) Alteplase and eptifibatide
- Q-7: How does dual -ACE and NEP inhibition may work as an attractive approach for hypertension?

1.5 M

Q-8: How does GABA synthesized and degraded? If you want to incrase the inhibitory neurotransmission, what are the basic approaches

2.0 M
