

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE, PILANI
DEPARTMENT OF PHARMACY
Comprehensive Examination- December 2022
Cellular and Molecular Pharmacology PHA G625 (Closed Book)

Weightage: 35%

Duration: 180 Mins

Date: 19/12/2022

Instructions:

- ✓ Write correct and precise answer.
- ✓ No spelling mistakes.
- ✓ Marks will only be given to correct and well explained answer and not to partial answers.
- ✓ Write in clear and legible handwriting.

1. Define the term Epigenetics and Epigenomics. Explain the role of epigenomics in understanding the β -cells & metabolism and complications. **7M**
2. Explain the significance of protective axis of renal angiotensin system using *in vivo* studies to prove its protectiveness in type II diabetic renal dysfunction with the help of experimental molecules. **10M**
3. "Essential hypertensive patients treated with AT1 receptor blockers regresses structural and functional abnormalities of the vascular wall suggest that Ang II plays a critical role in abnormal behavior of vascular cells in hypertension". Explain role of Ang II in the structural remodeling under hypertensive condition. **8M**
4. What you understand from the below picture? Write your observations and conclusions from the pictures and what experiments you will do to achieve this? Explain in detail. **10M**

