

QP Code: 106328

Reg No: .....

**First Year M.Pharm Degree Examinations – September 2013**

(2011 Scheme)

**(Pharmacology)**

**Paper II – Biochemical and Molecular Pharmacology**

**Time: 3 hrs**

**Maximum Marks: 100**

- *Answer all questions*
- *Draw diagrams wherever necessary*

**Essays:**

**(2x20 =40)**

1. Explain the biochemical modification and pathophysiology of diabetics.
2. Explain various reactive oxygen species chemical reaction and its role in the inducement of cell injury. Add a note on endogenous antioxidants.

**Short Essays:**

**(6x10=60)**

3. Name various growth factors. Explain VEGF role in pathogenesis.
4. How will you differentiate cellular apoptosis with necrosis
5. Explain multi drug resistance protein and cystic fibrosis transmembranes regulator.
6. Explain the gene regulation in eukaryotes. Add a note on gene amplification.
7. Name various plasmids that can be used for genetic recombination.
8. What are knockout animals and explain how they are produced.

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