Course No:
Course Title: Pharmaceutics III
Date: 00/11/2017
No. of Questions: (4)
Time: 1hours
Using Calculator (No)

University of Palestine

Second Mid. Exam
2017/2018
Total Grade:15

Instructor Name: _____
Student No.: _____
Student Name: _____
College Name: _____
Dep. / Specialist: _____
Using Dictionary (No)

Question One: Write briefly: (6 Mark)

A. Regarding an sterile ophthalmic suspension dosage form, write about:

1. Crystal growth over time
2. Intrinsic Solubility Parameter.
3. Quality control, Microscopic Test.
4. Quality control, Preservative Efficacy Test.

B. what are the aim of :

1. PFGylated of **Protein**.
2. Polymeric matrix system of **Gentamycin.**

Question Two: Compare between: (Two Differences are Enough) (3 Mark)

1. Chemical PEGylation **Vs**. Enzymatic PEGylation
2. Biodegradable implant **Vs.** Non-Biodegradable implant
3. Chemical drug **Vs.** Biological drug.

Question Three: Mention and Explain the role of each excipient in biological dosage form. (3Mark)

- Biomolecule ……..… As per dose
- Polyvinylpyrrolidone ……. 2.5%
- Pluronic …….. 1.5%
- Sucrose ……..... 35%
- Methyl Paraben …….. 0.01%
- Sodium chloride ……...….eq. 0.9%
- Sterile water for injection, USP ……. Q.S.

Question Four: Answer the question (3Mark)

In drugs manufacturing, you need to formulation a new in-situ ophthalmic gel, if you know the drug properties and available excipient, choose the requirement material and explain your choice. (don't write the concentration)

Active Ingredient Properties (concentration 0.9%): Hydro-soluble, Stable in water along of time, Good Membrane Permeation, and similar sodium chloride in tonicity activity.

Available Excipient: Sodium Chloride, Sterile Water For Injection, Purified Water, Cellulose Acetate Phthalate, Carbopol, Acetate Buffer, Phosphate Buffer, EDTA Benzalkonium Chloride , Chlorhexidine, Glycerol, Hydroxyethylcellulose, Sodium Metabisulfite, and Polysorbate 80.

Good Luck