

سوئکس 3

بسم الله الرحمن الرحيم

Alazhar University-Faculty of Pharmacy

Department of Pharmaceutics and Industrial pharmacy

13/06/2013

3

سوئکس

Pharmaceutics (3) Final exam

اسم الطالب:

Section	Marks
Section 1	/20
Section 2	/20
Section 3	/20
Total	/60

Section 1:

Put true or false and fill the table illustrated in the following page:

1. Sterile suspension of Zn-insulin crystals in an aqueous medium buffered to between pH 7.2 and 7.5 with sodium acetate in the insulin Zinc suspension.
2. The benzalkonium chloride 0.1 % and chlorbutanol 0.5 % are used as antimicrobial agents for the aqueous parenteral preparations.
3. The borosilicate glass has low thermal coefficient of expansion and is chemically resistant glass.
4. The cession of alkali elements in the powdered soda-lime glass require less H_2SO_4 to neutralize the pH of the medium rather than the type two glass.
5. The Acrylics type thermoplastics has excellent weather ability, good electrical resistivity and high heat resistance.
6. As chemical indicator for testing of the sterilization operation a green spot for high vacuum moist heat sterilization operating at 130 C or more is used.
7. Excellent electrical resistance and low moisture absorption and permeability have the polypropylene type thermoplastics.
8. The liquid filtration method which removes many types of large atomic molecules by forcing the liquid at low pressure through a membrane with pores to allow the smaller molecules to pass through is called reverse osmosis.
9. The polyesterene type thermoplastics are the oldest and the most widely used plastics with high heat resistance.
10. The polyethylene and polypropylene polyofines are used as additives in the production of the thermoplastics to reduce the coefficient of friction of the material.
11. The time of thermal death includes the time of heating and the time of penetration.

12. The wave length λ is directly proportional to the transmitted energy in the radiation sterilization.
13. The sodium- bisulfate 0.01 % is frequently used to prevent oxidation of the sterile dosage forms.
14. The dose of 2.5 rads is equivalent to the effect of 120 C during 30 minuts.
15. The Nylons type thermoplastics are used widely in the production of medical articles as tubing and special trays for use in urology and spinal procedures.
16. The β type should be obtained when the Van-der Graaf system is used and has a high penetration capacity.
17. The pore size recommended for sterilization by filtration is 0.020 - 0.022 μm .
18. The chemical dosimeter gives an accurate measurement of radiation absorbed dose in the testing of sterilization operation.
19. The polyvinyl alcohol is used in the ophthalmic preparations basically to prevent the microbial contamination because the eye is a sensitive organ.
20. The polypropylene type thermoplastics is lighter than the polyethylene type, more heat resistant than the polypropylene with the same electrical resistance.

من فضلك انقل الاشارة عند التأكد من الاجابة النهائية

Q	A	Q	A	Q	A	Q	A
1		6		11		16	
2		7		12		17	
3		8		13		18	
4		9		14		19	
5		10		15		20	

Section 2

Answer the following four questions. Briefly present.

1. What is the difference between a σ -algebra and a σ -ring?

2. Explain the concept of a σ -finite measure and its importance.

3. What is the Radon-Nikodym theorem and its significance?

4. What is the sorption and explain its mechanism?

5. Explain how the relative humidity affects the efficacy of the chemical method for sterilization?

6. Explain the basis of the bubble pressure test and why is used?

7. What you know about the prompt-insulin Zinc suspension?

8. Give the basis of the Royce-sacchet tset?

9. What you know about the crystal indicators?

10. Give the equation that permits to calculate the amount released from the occusert?

section 3:

1. Define the following
 - A. Distillation

B. DL_{50}

C. Inactivation factor.

D. Rad

E. Occusert 40 $\mu\text{g}/\text{h}$

2. Mention and explain in details the testing of Glass?

✓*

3. Mention and explain in details the biological test procedures of plastics?

4. Fill the following table:

Characteristics	UV	Ionizing radiations
Activity		
Units		
Mechanism		
Advantages		
Disadvantages		

Good luck
Dr. Issam Abushammala