Department: Pharmaceutics

Subject: Ph. D Entrance Model Question Paper

1. Which of the following USP Dissolution Test Apparatuses is used to study drug release from TDDS?

   A. Paddle over Disc (Type V)

   B. Rotating Cylinder.

   C. Basket Apparatus.

   D. Both A & B.

   Ans: D

2. Which of the following route is commonly used for penetration of the drugs into skin,

   A. Transcellular Route

   B. Intercellular Route

   C. Intracellular Route

   D. Both A & B.

   Ans: D

3. Silicone is used as _____ in the Transdermal patch.

   A. A backing membrane.

   B. An adhesive.

   C. A polymer.

   D. A permeation enhancer.

   Ans: B

4. Azone TS & SRPA are used in TDDS as,

   A. Drug Carrier.

   B. Polymer matrix.

   C. Penetration enhancer.

   D. Adhesive.

   Ans: C

5. Identify the correct order of layers for “Microreservior Patch”.

A. Backing Membrane, Occlusive Base, Drug Microreservior, Release liners.

B. Backing Membrane, Drug Adhesive Mix, Release liners.

C. Backing Membrane, Controlled Release Membrane, Drug Microreservior, Release liners.

D. Occlusive Base, Drug Microreservior, Backing Membrane, Release liners.

Ans: A

6. Which of the following factors does not affect diffusion of the drug through stratum corneum?

A. Drug concentration.

B. Surface tension.

C. Partition coefficient of the drug.

D. Aqueous solubility of the drug.

Ans: B

7. Which of the following is not associated with TDDS as a side effect,

A. Urticaria

B. Erythema

C. Contact dermatitis

D. Hyperchlorhydria

Ans: D

8. Which of the following is NOT an advantage of the TDDS?

A. Noninvasive

B. Avods GI tract

C. Larger doses can be administered

D. Useful for drugs with narrow therapeutic indices

Ans: C

9. The first drug used for TDDS was,

A. Cetirizine

B. Nicotine

C. Scopolamine

D. Fantanyl

Ans: C

10. Which of the following characteristics is suitable for selection of a candidate for TDDS?

A. Large Dose.

B. Larger molecular Size.

C. Higher first pass effect.

D. Metabolism in Skin.

Ans: C

11. Which of the following statements is true with effect of "Skin Thickness" on rate of permeation?

A. Rate of permeation is not dependent on thickness of the skin.

B. Rate of permeation increases with an increase in skin thickness.

C. Rate of permeation decreases with an increase in skin thickness.

D. Rate of permeation increases skin thickness.

Ans: C

12. Iontophoresis is used in TDDS as a,

A. Physical penetration enhancer.

B. Chemical penetration enhancer.

C. Drug Carrier.

D. Polymer matrix.

Ans: A

13. Which of the following molecular weights is considered an ideal for the candidate of TDDS?

A. Not More Than 400 Dalton

B. Not More Than 600 Dalton

C. Not More Than 800 Dalton

D. Not More Than 1000 Dalton

Ans: A

14. The mechanism of chemical permeation enhancer is,

A. Cause deposition of penetrant in the stratum corneum.

B. Alters physicochemical properties of stratum corneum.

C. Causes reversible damage to the stratum corneum.

D. Both b & c.

Ans: D

15. Which of the following is not a candidate for TDDS?

A. Drugs with short half-lives

B. Drugs with narrow therapeutic indices

C. Easy removal and termination

D. Local healers for peptic ulcer

Ans: D

16. Identify the component which is not a part of the Transdermal Patch.

A. Seal Coat.

B. Adhesive layer.

C. Backing membrane.

D. Polymer matrix.

Ans: A

17. From which of the following mechanisms most of the drugs get absorbed via skin.

A. Active transport

B. Passive Transport

C. Facilitated transport

D. Osmosis

Ans: B

18. From which of the following anatomical structures the drugs from TDDS enters the systemic circulation.

A. Epidermis

B. Dermis

C. Sweat Glands / Hair follicles

D. Hypodermis

Ans: B

19. The primary barrier for the TDDS is,

A. Dermis

B. Hypodermis

C. Subcutaneous Tissue

D. Epidermis

Ans: D

20. Well developed "intercellular lipid lamellae" is a feature of which layer of the epithelium.

A. Stratum basale

B. Stratum spinosum

C. Stratum lucidum

D. Stratum corneum

Ans: D

21. The approach (s), which is/are currently followed to produce human monoclonal antibodies, is/are known as

A. transformation of antigen specific B lymphocytes (EBV)

B. hybridization of 6-thioguanine-resistant human plasmacytoma with immune human lymphocytes

C. combination of EB Vandhybridoma techniques

D. all of these

Ans: D

22. Some cross reactions with monoclonal antibodies (MAbs) can occur. Unexpected cross reactions occur more frequently with

A. Ig MAbs

B. IgG

C. IgA

D. IgE

Ans: A

23. Preliminary clinical results with a humanized antibody against the interleukin-2 receptor have suggested the

A. absence of human immune response against murine proteins (HAMA) response

B. presence of HAMA response

C. poor recognition of immunoglobulin Ig constant regions

D.all of the above

Ans: A

24. The cross linkage of antigens by antibodies is known as

A. agglutination

B. complement fixation

C. a cross reaction

D. all of these

Ans: A

25. In monoclonal antibody technology, tumor cells that can replicate endlessly are fused with mammalian cells that produce an antibody. The result of this cell fusion is a

A. hybridoma

B. myeloma

C. natural killer cell

D. lymphoblast

Ans: A