

## GPAT Sample Questions

1. A Pharmaceutical company plans to market a generic version of a drug produce whose patent has expired

has expire(d) Which type of documentation must be submitted to the FDA

- (a) IND
- (b) NDA
- (c) ANDA
- (d) SNDA & Letter of intent

2. Which of the following does not produce azeotropic mixture with water

- (a) Methanol (b) Ethanol
- (c) Propanol (d) Isopropanol

3. For a particular durg, the rate of absorpion but not the extent of the absorpion of GIT, is affected by

presence of food in GIT then taking the drug with food will result in

- (a) Smaller area under the plasma drug concentration time curve
- (b) Smaller maximal plasma drug concentration
- (c) Smaller time at which the maximal plasma drug concentration occurs
- (d) Smaller fractional bioavailability and total clearance

4. According to USP Alcohol contains

- (a) 94.9 to 96% Ethanol
- (b) 94.9 to 96% Methanol
- (c) 50% Ethanol
- (d) 50% Methanol

5. What does in mean that a cell is polyploid

- (a) That is contains more than 2 copies of one or a few of its of chromosomes
- (b) That is contains more than 2 copies of a full set of homologous chromosomes
- (c) That is contains more than 2 copies of its sex chromosome
- (d) That is contains more than 2 copies of its autosomal chromosomes

6. Amount of dextrose in large volume infusion fluids

- (a) 5% w/v
- (b) 10% w/v
- (c) 25% w/v
- (d) 50% w/v

7. \_\_\_\_\_, Anthelmintics having Immunosuppressant activity.

- (a) Piperazine

- (b) Levamisole
- (c) Ivermectin
- (d) Niclosamide

8. Choose correct statement for PEGylation:

- (A) Used to enhance In-vivo half-life of smaller Peptides and proteins
- (B) Avoidance of Reticulo-endothelial (RES) clearance
- (C) Reduce clearance rate through kidney
- (D) All

9. Characteristics feature if hemorrhagic dengue fever is

- (a) Reduction in platelet count
- (b) Reduction in RBC count
- (c) Reduction in coagulation factors
- (d) Increased RBC

10. The carbonyl stretching frequency for simple aldehydes, ketones, and carboxylic acids is about 1710  $\text{cm}^{-1}$

whereas the carbonyl stretching frequency for esters is about .....  $\text{cm}^{-1}$

- (a) 1650
- (b) 1700
- (c) 1750
- (d) 1850

11. Polarographic method of analysis to obtain individual amounts of  $\text{Cu}^{2+}$  and  $\text{Cd}^{2+}$  in a given mixture of the two

ions ( $\text{Cu}^{2+}$  and  $\text{Cd}^{2+}$ ) is achieved by measuring their

- (a) Half-wave potentials
- (b) Migration currents
- (c) Decomposition potentials
- (d) Diffusion currents

12. Consider the reaction:  $A \rightleftharpoons B + C$

The unit of the thermodynamic equilibrium constant for the reaction is

- (a)  $\text{mol L}^{-1}$
- (b)  $\text{L mol}^{-1}$
- (c)  $\text{mol}^2 \text{L}^{-2}$
- (d) Dimensionless

13. \_\_\_\_\_, system does not have orifice to release the drug.

- (a) Elementary Osmotic Pump
- (b) L-OROS
- (c) Sandwich Osmotic Pump Tablet
- (d) Controlled Porosity Osmotic Pump Tablet

14. Sanguinarine belongs to the subgroup of:

- (a) Morphinans
- (b) Benzyl isoquinolines
- (c) Phthalide isoquinolines
- (d) Benzophenanthrenes

15. Identify the IUPAC of dexamethasone

- (a) 2-Chloro-6, 9-difluoro-11, 17, 21-trihydroxy-16-methylpregna-1,4-dien-3, 20-dione
- (b) 9-Fluoro-11, 17, 21-trihydroxy-16-methylpregna-1, 4-diene-3, 20-dione
- (c) 9-Fluoro-11, 17, 21-trihydroxy-16-methylpregna-1, 4-diene-3, 20-dione
- (d) 6-Fluoro-11, 21-dihydroxy-16-methylpregna-1, 4-diene-3. 20-dione

16. Tamoxifen is nonsteroidal drug acting at steroid receptor(s) It produces which type of effects

- (P) Androgen (Q) Antiestrogen
- (R) Antiprogesterone (S) Estrogen

- (a) P and Q
- (b) Q and S
- (c) Q and R
- (d) R and S

17. Which enzymes is used by the HIV to form DNA in the host cell

- (a) Restriction endonuclease
- (b) DNA-directed polymerase only
- (c) Reverse transcriptase only
- (d) Both (b) and (c)

18. 'Sparging' is the process where

- (a) Silanol groups react with trimethylsilyl group
- (b) An inert gas is bubbled through the solvent reservoir to remove dissolved gases
- (c) Solvents are mixed together in a fixed ratio
- (d) Column is washed with solvents from nonpolar to polar and reverse

19. Morphine does not cause:

- (a) Constriction of pupil
- (b) CNS depression
- (c) Respiratory depression
- (d) Diarrhoea

20. Which of the following is not recommended in patients with renal insufficiency or cardiac dysfunction

- (a) Aloe
- (b) Bisacodyl

- (c) Isapghol
- (d) Magnesium hydroxide

21. Higuchi model is applicable to drug that is..... In the formulation

- (a) Dissolved in formulation
- (b) Dispersed in formulation
- (c) Chemically bound to carrier in formulation
- (d) Osmotically controlled in the formulation

22. Which of the following is correct about parenteral nutrition

- (a) Parenteral nutrition solutions are hypertonic solutions and IV fluids are isotonic
- (b) Parenteral nutrition solutions and IV preparations are isotonic solutions
- (c) Parenteral nutrition solutions are hypertonic solutions and IV fluids are isotonic
- (d) Parenteral nutrition solutions can be supplemented with medications

23. Cyclic AMP (cAMP) is an important second messenger in signal transduction pathway(s) Which enzyme

catalyzes the generation/accumulation of cAMP after a receptor – ligand interaction

- (a) Protein kinase A
- (b) cAMP phosphodiesterase
- (c) Guanylyl cyclase
- (d) Adenylate cyclase

24. Which of the following is not included in immunization programme as per WHO recommendations for all children

- (a) BCG
- (b) Oral polio
- (c) Measles
- (d) Typhoid

25. Match the given condition with appropriate drug used for its treatment

- (1) Pernicious anemia (P) Erythropetin
- (2) Megaloblastic anemia (Q) Oprelvekin
- (3) Anemia associated with chronic renal failure (R) Parenteral Vitamin B12
- (4) Thrombocytopenia due to cancer chemotherapy (S) Folic acid

- (a) 1-P, 2-Q, 3-R, 4-S
- (b) 1-R, 2-S, 3-P, 4-Q
- (c) 1-R, 2-Q, 3-S, 4-P
- (d) 1-R, 2-P, 3-S, 4-Q

26. In mammals, The major fat in adipose tissue is:

- (a) Triglyceride
- (b) Cholesterol

- (c) Sphingophospholipids
- (d) Phospholipids

27. Polarographic method of analysis to obtain individual amounts of  $\text{Cu}^{2+}$  and  $\text{Cd}^{2+}$  in a given mixture of the two

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28. What is the objective of trademark

- (a) To claim exclusive properties of products or services
- (b) To claim innovation of products or services
- (c) To deal with market place of expressive ideas
- (d) To protect consumers from being misled

29. Turbulent flow is exhibited by fluids whose

- (a)  $Re < 40$
- (b)  $Re > 40$
- (c)  $Re = 40$
- (d) All of the above

30. Characteristics of drug-protein binding

- (P) Often parallels drug lipid solubility
- (Q) Drug-plasma albumin binding tends to be relatively nonselective
- (R) Acidic drugs bind to albumin while basic drug bind to glycoproteins
- (S) In rheumatoid arthritis patients, increased alpha1- acidic glycoprotein tends to promote increased lidocaine protein binding

