

Answer Key

PH.D Entrance Exam (PET-2024)

Discipline-Pharmacy (MCQ based Questions-40)

Question number	Answer	Question number	Answer
Q1	B	Q21	A
Q2	A	Q22	B
Q3	C	Q23	B
Q4	B	Q24	C
Q5	B	Q25	A
Q6	C	Q26	C
Q7	D	Q27	A
Q8	D	Q28	B
Q9	D	Q29	B
Q10	C	Q30	C
Q11	B	Q31	B
Q12	B	Q32	B
Q13	C	Q33	D
Q14	B	Q34	C
Q15	D	Q35	D
Q16	A	Q36	C
Q17	A	Q37	B
Q18	D	Q38	C
Q19	B	Q39	B
Q20	A	Q40	C

As received from examinee  
CSTH  
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**Ph.D. Entrance Examination of PHARMACY**

- Q1. Moisture content of empty gelatin capsule shell lie in the range of
- A. Below 10%
  - B. 12-15%
  - C. Above 16%
  - D. None of the above
- Q2. The medicinally important plants such as Cinchona and Ipecac belong to which of the following family?
- A. Rubiaceae
  - B. Apocynaceae
  - C. Solanaceae
  - D. Liliaceae
- Q3. Which of the following is a long acting neuromuscular blocking agent?
- A. Rapacuronium
  - B. Mivacurium
  - C. Tubocurarine
  - D. Rocuronium
- Q4. The active species in Fries rearrangement is
- A. Anion
  - B. Cation
  - C. Free radical
  - D. All of the above
- Q5. Surfactants most suited as wetting agents exhibit HLB values in range of
- A. 1-3
  - B. 7-9
  - C. 11-14
  - D. None of the above
- Q6. Trimethorpim (2, 4-Diamino-5-(3,4,5-Trimethoxybenzyl) pyrimidine), a potent inhibitor of dihydrofolate reductase can be synthesised from
- A. 3, 4, 5-trimethoxy benzaldehyde via hydrocinnamic acid
  - B. 3, 4, 5-trimethoxybenzaldehyde via cinnamionitrile
  - C. Both A and B
  - D. Only A is correct and B is incorrect
- Q7. Which of the following CNS stimulant belongs to nootropics?
- A. Camphor
  - B. Pantocrin
  - C. Sydnocarb
  - D. Piracetam
- Q8. In plant tissue culture, surface sterilization of explant is carried out by
- A. Sodium hypochloride
  - B. Bromine water
  - C. Hydrogen peroxide
  - D. All of the above

- Q18. A B C D
- Q9. Which of the following case is not a part of a typical prescription?  
A. The superscription  
B. The inscription  
C. The subscription  
D. The description
- Q10. Which of the following ring is present in sulphamethoxazole?  
A. Pyrazole  
B. Thiazole  
C. Isoxazole  
D. Oxazole
- Q11. Which of the following drugs has low molecular weight?  
A. Dicumarol  
B. Enoxaprin  
C. Heparin  
D. Phenprocoumon
- Q12. For the formation of shoot, which ratio of plant growth regulator(s) is required?  
A. Auxin:cytokinin (1:4)  
B. Auxin:cytokinin (4:1)  
C. Auxin:cytokinin (100:1)  
D. Auxin:cytokinin (1:100)
- Q13. A dose of drug sufficient to produce a plasma concentration of drug that would fall within the therapeutic window after only one dose over a very short interval is  
A. Bolus dose  
B. Maintenance dose  
C. Loading dose  
D. None of the above
- Q14. The starting material of diazepam is  
A. 2-amino-5-chloro-benzophenone  
B. 2-amino-7-chloro-benzophenone  
C. 3-amino-5 chloro-benzophenone  
D. 4-amino-5 chloro-benzophenone
- Q15. Which of the following anti-anginal drug is a  $K^+$  channel opener?  
A. Dipyridamole  
B. Validol  
C. Atenolol  
D. Minoxidil
- Q16. Which of the following crude drug(s) can be identified by the presence of characteristic prismatic type calcium oxalate crystals in its entire or powdered form?  
A. Rauwolfia  
B. Belladonna  
C. Cinnamon  
D. All of the above
- Q17. Which of the following facts are true for steady state?  
A. The time required to reach steady state depends on elimination half-life and not infusion rate  
B. The rate of change of amount of drug in the body becomes maximum  
C. The time required to attain steady state depends only on the rate of the infusion  
D. Both A and B

Q18. The major clinical use of  $\text{Ca}^{2+}$  channel blockers is

- A. Angina pectoris
- B. Hypertension
- C. Supraventricular tachyarrhythmia
- D. All of the above

Q19. Which of the following technique is used for the identification of crude drug when chemical and physical methods are inapplicable?

- A. Ash value determination
- B. Lycopodium spore method
- C. Paper chromatography
- D. None of the above

Q20. According to pH-partition theory, the drugs compounds which are primarily transported across the bio-membrane by passive diffusion

- A. Possess molecular weight more than 100
- B. Possess molecular weight less than 100
- C. Possess molecular weight more than 1000
- D. Possess molecular weight less than 1000

Q21. Penicillin on hydrolysis with alkali gives

- A. Penicilloic acid
- B. Penaldic acid
- C. Penicillic acid
- D. dehydro thiazolidine system

Q22. Tamoxifen is

- A. Antoprogesterin
- B. Antiestrogen
- C. Androgen
- D. Antiandrogen

Q23. The moisture content in the crude drug obtained from Digitalis should be

- A. Not more than 8%
- B. Not more than 5%
- C. Not less than 8%
- D. Not less than 5%

Q24. When two or more drug products are identical in strength, quality, purity, disintegration and dissolution characteristics, they can be regarded as

- A. Chemical Equivalent
- B. Therapeutic Equivalent
- C. Pharmaceutic Equivalent
- D. Biologically Equivalent

Q25. Which of the following emulsifying agent is cationic in nature?

- A. Cetrimonium bromide
- B. Poloxamer 188
- C. Acacia
- D. Sodium lauryl sulphate

Q26. Which of the following enzyme is used in cancer therapy?

- A. Pepsin
- B. Urokinase
- C. L-asparaginase
- D. Lipase

- Q27. Which of the following heterocyclic alkaloid is used for the therapeutic management of asthma?
- Lobeline
  - Ephedrine
  - Mescaline
  - Hordenine
- Q28. In physiological terms, renal clearance is expressed as
- Rate of secretion + rate of filtration- rate of reabsorption
  - Rate of filtration + rate of secretion-rate of reabsorption
  - Rate of filtration+ rate of secretion+ rate of reabsorption
  - Rate of reabsorption- rate of filtration- rate of secretion
- Q29. Examples of indirect acting sympathomimetics include
- Amphetamine
  - Methoxamine
  - Hydroxyamphetamine
  - Phenylephrine
- Q30. The detector used in HPLC is
- Differential refractometer
  - Photodiode array
  - Both a and b
  - None of the above
- Q31. The test in which the drug solution treated with dilute iodine solution results in the formation of reddish-brown colour, is known as
- Dragendorff's Test
  - Wagner's Test
  - Mayer's Test
  - Hager's Test
- Q32. In a first order degradation kinetics, which of the following is correct?
- plot of Conc versus Time yields straight line
  - plot of logarithm of conc versus time yields straight line
  - plot of conc versus logarithm of time yields straight line
  - plot of logarithm versus time yields straight line
- Q33. Manifestations of ganglionic blockade include 1) mydriasis 2) urinary retention 3) tachycardia 4) decreased venous return?
- 1,2,3
  - 1,3
  - 2,4
  - 4 only
- Q34. Which antipsychotic drug causes Minor T wave abnormality?
- Clozapine
  - Quetiapine
  - Thioridazine
  - Sulpiride
- Q35. Which of the following chemical test is employed to confirm the presence of saponin glycosides?
- Antimony trichloride test
  - Foam test
  - Haemolysis test
  - Both B and C

Q36. Which of the following mechanism is responsible for chemical degradation?

- A. Oxidation
- B. Photolysis
- C. Hydrolysis
- D. Decarboxylation

Q37. Which of the following local anaesthetic is a useful anti-arrhythmic agent?

- A. Cocaine
- B. Lidocaine
- C. Bupivacaine
- D. Ropivacaine

Q38. The drug of choice for clinical cure of all types of malaria other than resistant cases is

- A. Quinine
- B. Artemether
- C. Chloroquine
- D. Proguanil

Q39. Which of the following active constituent is not found in peppermint oil?

- A. Menthone
- B. Carvone
- C. Menthol
- D. Cineole

Q 40. Which of the following technique is NOT employed for solubility enhancement?

- A. Cosolvency
- B. Hydrotrophy
- C. Ion-exchange Resins
- D. Complexation