

71. Highly plasma protein bound is : **Delhi 1995**
 A. Warfarin B. Atenolol
 C. Digitoxin D. Phenytoin
72. Zero order kinetics occur in following drugs with high dose : **AI 1996**
 A. Phenytoin & Propranolol
 B. Digoxin & Propranolol
 C. Amiloride & Probenecid
 D. Lithium & theophylline
73. Drug level in the blood is monitored because of : **AI 1996**
 A. Side effects
 B. Very low therapeutic index
 C. Long half life
 D. Low therapeutic efficacy
74. Which of the following does not cause hyper-triglyceridemia : **PGI 1995**
 A. Frusemide
 B. Steroid
 C. Calcium channel blocker
 D. Chlorpromazine
75. Cholestatic jaundice is caused by : **PGI 1995**
 A. Imipramine B. Methyl testosterone
 C. Tetracycline D. Lithium
76. Pharmacogenetics are important in metabolism of : **Delhi 1997**
 A. Rifampicin B. Isoniazid
 C. Digitalis D. Propranolol
77. The metabolism of a drug is independent of its concentration in ——— order kinetics : **Delhi 1997**
 A. Zero B. First
 C. Second D. Third
78. True about acidic drug is : **PGI 1997**
 A. Best absorbed in alkaline medium
 B. Best absorbed in acidic medium
 C. Excretion on acidic medium
 D. All of the above
79. Dosage of drug is determined by following except : **PGI 1997**
 A. Volume of distribution
 B. Half life
 C. Body mass
 D. Sex
80. Maximum enterohepatic circulation is seen in : **UP 1998**
 A. Vancomycin B. Ciprofloxacin
 C. Ampicillin D. Erythromycin
81. The distribution of a drug throughout the body is influenced by all of the following factors except : **Manipal 1992**
 A. The extent of protein-binding
 B. The lipid solubility of the drug & differences in Regional blood flow
 C. The pK of the drug
 D. The plasma half-life of the drug
82. A teratogenic drug is most likely to cause congenital anomalies when it is administered to the mother during : **Manipal 1994**
 A. The first trimester of pregnancy
 B. The second trimester of pregnancy
 C. The third trimester of pregnancy
 D. The first stage of labour
83. All of the following drugs are used in the treatment of post-traumatic epilepsy except: **Manipal 1995**
 A. Carbamazepine B. Ethosuximide
 C. Phenytoin D. Valproate
84. Which of the following causes retinal pigmentation is a side effect : **Kerala 1998**
 A. Adriamycin B. Bleomycin
 C. Tamoxifen D. Stibesterol
85. Which of the following does not produce pulmonary fibrosis : **Kerala 1998**
 A. Busulpan B. Stibesterol
 C. Adriamycin D. Bleomycin
86. All of the following drug pairs interact such that one drug enhances the action or toxicity of the other drug, except : **Orissa 1998**
 A. Chlorpromazine & Amphetamine
 B. Corticosteroid & epinephrine
 C. Diazepam & ethyl alcohol
 D. Phenytoin & isoniazid
87. The drug metabolizing enzyme that are oldest in the humans are : **Orissa 1999**
 A. The cytochrome P430 gene family
 B. Choline esterase
 C. Xanthine oxidase
 D. Aldehyde dehydrogenase
88. An agonist is one which has : **PGI 1999**
 A. Receptor auto-regulation
 B. Affinity with intrinsic activity
 C. Affinity only
 D. Intrinsic activity only
89. Pharmacologically undesirable but unavoidable is : **PGI 1999**
 A. Side effect B. Toxic effects
 C. Adverse effect D. Idiosyncrasy
90. True regarding dose-response curve is : **PGI 1999**
 A. Cannot determine the potency of a drug
 B. Log of a drug is sigmoid shaped
 C. Cannot find response to antagonist
 D. A wide range of doses can not be plotted

Ans.	71. A	72. A	73. B	74. C	75. B	76. B	77. A	78. B	79. D	80. C
	81. D	82. A	83. B	84. C	85. B	86. A	87. A	88. C	89. A	90. A

1.14 PHARMACOLOGY

163. Drug undergoing Entero Hepatic circulation is :
Karnataka 1998
A. Sulfonamide B. Penicillin
C. Erythromycin D. Streptomycin
164. Loading dose of a drug is given :
Delhi 1998
A. When half-life of a drug is long
B. When serum concentration is to be achieved rapidly
C. When therapeutic index is low
D. When drug follows first order kinetics
165. The following can be associated with fatty liver except :
UPSC 2007
A. Amiodarone B. Zidovudine
C. Sodium valproate D. Chlorpropamide
166. Which one of the following is an antiemetic with minimal CNS side effects?
UPSC 2007
A. Ondansetron B. Chlorpromazine
C. Metoclopramide D. Prochlorperazine
167. All of the following have receptors which are transcription factors except :
AI 2007
A. Insulin B. Estrogen
C. Glucocorticoids D. Vitamin D
168. Prothrombin Time (PT) of a patient is 26, Control PT is 13 seconds and Sensitivity index is 1.41. What will be the INR of this patient ?
AI 2007
A. 26/13 B. $(26/13) \times 1.41$
C. $(26/13)141$ D. $(26/13) 1/141$
- W169. Which of the following is a prodrug?
AI 2007
A. Ticlopidine B. Aspirin
C. Clopidogrel D. Dipyridamole
170. The following drug acts by hypomethylation :
AI 2007
A. Gemcitabine B. Capecitabine
C. Decitabine D. Cytosine arabinoside
171. Good clinical practices (GCPs) are not a part of :
AIIMS 2007
A. Preclinical studies B. Phase-I studies
C. Phase-II studies D. Phase-IV studies
172. Bone marrow aplasia is seen with all except :
AIIMS 2007
A. Methicillin
B. Chloramphenicol
C. Alpha methyl hydantoin
D. Phenylbutazone
173. Therapeutic index is an indicator of :
Delhi 2007, AI 2008
A. Safety B. Efficacy
C. Potency D. Toxicity
174. Which one of the following is true about Phase-II clinical trial?
AI 2008
A. Large number of patients are included
B. Efficacy
C. Toxicity
D. Safety
175. Xenobiotics involves all of the following enzymes except :
AI 2008
A. Hydroxylation B. Cytochrome oxidase
C. Cytochrome P450 D. Methylation
176. Drugs causing urine discoloration include all of the following except :
AI 2008
A. Quinine B. Pyridine
C. Rifampicin D. Nitrofurantoin
177. Which of the following is an inhibitor of the CYP 450 enzymes ?
AIIMS 2008
A. Phenobarbitone
B. Ketoconazole
C. Rifampicin
D. Phenylbutazone
178. Free water clearance is reduced by :
AIIMS 2008
A. Chlorpropamide B. Furosemide
C. Clofibrate D. Vincristine
179. The loading dose of a drug depends on :
AIIMS 2008
A. Half life of the drug
B. GFR
C. Volume of distribution
D. Rate of metabolism

Ans.	163. C	164. B	165. D	166. A	167. A	168. C	169. A,C	170. C	171. A	172. A
	173. A	174. D	175. B	176. A	177. B	178. A	179. C			

Although, KDT also attributes respiratory depression and reduced gut motility to delta receptors. The fact that they have not been mentioned in Katzung indicate these to be minor functions with δ -receptors if at all. Hence supraspinal analgesia here is the answer of choice.

16. Ans. — A Head injury :

Precaution and Contraindications of Morphine :

1. *Head injury : Morphine is contraindicated in patients with head injury (KDT).* Reasons are :-

- a. By retaining CO_2 , it increases intracranial tension which will add to that caused by head injury itself.
- b. Even therapeutic doses can cause marked respiratory depression in these patients.
- c. Vomiting, miosis, and altered mentation produce by morphine interfere with assessment of progress in head injury cases.

2. *Branchial asthma :* Morphine can precipitate an attack by its histamine releasing action.

3. *Hypothyroidism*, liver and kidney disease patients are more sensitive to morphine

4. Infants and elderly are more susceptible to the respiratory depressant action of morphine.

5. It is dangerous in patients with respiratory insufficiency (Emphysema, pulmonary fibrosis, cor pulmonale) sudden deaths have occurred.

6. Hypotensive states and hypovolemia exaggerate fall in BP due to morphine.

7. Undiagnosed acute abdominal pain—> morphine can aggravate certain conditions e.g., diverticulitis, biliary colic, pancreatitis.

8. Elderly male —> chances of urinary retention are high.

9. Unstable personalities —> are liable to continue its use and become addicted.

- * Morphine should thus not be used in cases of head injury and bronchial asthma both. However, as the text uses the term 'contraindicated in association with head injury,

we select this as a better answer from the options provided and draw the following inference to justify answer.

- * Morphine is contraindicated in patients with head injury.
- * Morphine should be avoided in patients with bronchial asthma as it has the potential to exacerbate or precipitate an attack.
- * Patients with hypothyroidism are more sensitive to effects of morphine. This however, does not contribute as a contraindication to its use and a dose reduction may probably be all that is required for these.

17. Ans. — C Low oral bioavailability always and necessarily means poor absorption :

"Bioavailability of a drug is defined as the fraction of unchanged drug reaching the systemic circulation following administration by any route"

18. Ans. — B Concurrent food intake may severely reduce the rate of absorption of phenytoin.

- * Presence of food in the stomach delays absorption of digoxin as well as digitoxin.
- * Absorption of Halofrantine can be dramatically increased if give with food (6 to 10 times):

Oral bioavailability of halofrantine is greatly increased when microionised or taken with fatty food.

- * Food and volume of fluid ingested do not affect absorption of hydrochlorothiazide although some conflicting reports are present.
- * Absorption of phenytoin by oral route is slow because of poor aqueous solubility. Presence of food may interfere with its absorption.

19. Ans. — A Phenytoin :

Phenytoin administration, is plagued by several side effects, even at therapeutic plasma concentration, when use has been prolonged.

"Pancytopenia (Granulocytopenia) has also been mentioned as a side effect of phenytoin in Harrison's 14th/426"

MCQ's OF NERVOUS SYSTEM (CENTRAL & PERIPHERAL)

What is important in nervous System

Neurotransmitters, Alcohol, Neuroleptics, Antidepressants, (newer) Benzodiazepines (duration, effects), Antiepileptic drugs (mechanism of action, indications and side effects), Adrenergic and cholinergic agonists and antagonists (effects, uses), Antihistaminics and Antiserotonergics (uses). Ergot alkaloids, Muscle relaxants, CNS stimulants, Antiparkinsonian.

- All of the following antiepileptic drug act via Na⁺ channel, except : **AI-2007**
A. Vigabatrin B. Topiramate
C. Valproate D. Phenytoin
- Which one of the following is not an antiepileptic : **AI 2007**
A. Phenobarbitone B. Carbamazepine
C. Phenytoin D. Flunarizine
- Which of the drug is not an atypical antipsychotic ? **AIIMS-2006**
A. Thoridazine B. Risperidone
C. Clozapine D. Olanzapine
- Naltrexone is used in which of the following conditions ? **AIIMS-2006**
A. For opioid overdose
B. For opioid abuse
C. Benzodiazepine abuse
D. All of the above
- Drug which is widely used for long term maintenance of morphine withdrawal ? **AIIMS-2006**
A. Methadone B. Naloxone
C. Naltrexone D. Nalbuphine
- Which of the following is a benzodiazepine antagonist ? **AIIMS-2006**
A. Flumazenil B. Naloxone
C. Naltrexone D. Buprenorphine
- Prolonged use of one of the following anticonvulsant can produce weight loss : **AIIMS 2006**
A. Gabapentin B. Oxcarbazepine
C. Topiramate D. Valproic acid
- When listing barbiturates in order from shortest acting to longest acting, which of the following is correct? **AIIMS 1985, 96**
A. Thiopental, phenobarbital, pentobarbital
B. Phenobarbital, pentobarbital, thiopental
C. Pentobarbital, phenobarbital, thiopental
D. Thiopental, pentobarbital, phenobarbital
- Which of the following hypnotics may be given to a patient with marked respiratory insufficiency ? **AIIMS 1986, 98**
A. Diazepam B. Glutethimide
C. Methaqualone D. None of the above
- Chlorpromazine is effective as an antiemetic by : **AIIMS 1999**
A. Quieting stomach
B. Blocking the chemoreceptor trigger zone
C. Depressing the vomiting center
D. Decreasing nervous input from the vestibular apparatus to the vomiting centre
- Hyperplasia of the gums is a common side effect of long term therapy with : **AIIMS 1986, 99**
A. Diphenylhydantoin B. Diazepam
C. Trimethadione D. Phenobarbital
- Each of the following agents is used therapeutically to suppress epileptic seizures except : **PGI 1980, 92**
A. Diazepam B. Reserpine
C. Phenytoin D. Ethosuximide
- Most specific Beta-2 agonist is : **Delhi 1995**
A. Norepinephrine B. Dobutamine
C. Phenylephrine D. Salbutamol
- Maximum muscarinic cholinergic activity is by : **Delhi 1995**
A. Bethanechol B. Carbachol
C. Methanecol D. Acetylcholine
- Fluphenazine decanoate is drug of choice in : **AIIMS 1988, 2000**
A. Mania
B. Depression
C. Resistant Schizophrenia
D. Chronic Schizophrenia
- Which of the following reduces sweating : **AI 1993**
A. Alpha blocker B. Beta blocker
C. Atropine D. Eserine

Ans.	1. A	2. D	3. A	4. B	5. A	6. A	7. C	8. D	9. D	10. B
	11. A	12. B	13. D	14. D	15. D	16. C				