Pharma First exam
2013 questions

Exam Details :

Material	**Chp1&2 + ANS + CNS**
Num of qus	**40**
Duration	**40 min**

1-Atropine overdose can be complicated all of the following manifestations EXCEPT:

A-Dryness of mouth
B-Retention of urine
C-Tachycardia
D-Miosis
E- Blurred vision (cycloplegia)

2-Which of the following pairs of drug and its property is TRUE?

A-Neostigmine ---------is neuromuscular blocking agent.
B-Atropine----------is selective muscarinic (m2) receptor blocker.
C-Scoplamine------- is used in the management of motion sickness.
D-Bethanechol---------is rapidly hydrolyzed by cholinesterase enzyme.
E-Echothiophate-------is a cycloplegic agent.

3-Which of the following drugs can produce broncodilation tachycardia and hypotention ?

A-Adrenaline (epinephrine).
B-Noradrenaline (norepinephrine).
C-Isoproterenol.
D-Dobutamine.
E-Dopamine.

4-Beta adrenergic blocking drugs are used in the management of all of the following conditions EXCEPT:

A-Hypertension.
B-Hypothyroidism.
C-Angina pectoris.
D-Essential tremor.

E-Cardiac arrhythmia.

5-The drug of the first choice in the management of anaphytactic shock is:

A-Epinephrine.
B-Dopamine.
C-Hydrocortisone.
D-Phenylephrine.
E-Dobutamine.

6-The intensity (magnitude) and direction of drug action correlate in a predictable by way the:

A-Lipid/water partition coefficient (LWPC) of the drug.
B-Potency of the drug.
C-Molecular weight of the drug.
D-Administered dose of the drug.
E-Efficacy of the drug.

7-If a 5mg dose of drug X produce the same magnitude of effects as drug Y at a dose of 20mg. via a similar mechanism of action. It can be concluded that:

A-Drug Y is associated with a wider therapeutic index compared to drug X.
B-Drug X is more efficacious than drug Y.
C-Risk of toxicity induced by drug Y is higher than that of drug X.
D-Drug X is less potent than drug Y.
E-None of the listed conclusions is correct.

8-First pass hepatic effect refers to:

A-Liver metabolism of drugs delivered via the portal vein.
B-Activation of drugs by hepatic enzymes.
C-Storage of drugs in the liver.
D-Biliary excretion of drugs.
E-Liver metabolism of drugs delivered via the hepatic artery.

9-First-order elimination process:

A-Is characterized by drug dose-dependent half-life of elimination (T1/2e).
B-Applies to a limited number of drugs in clinical practice.
C-Is not applicable to the rate of drug metabolism (biotransformation).
D-Proceeds at rates dependent on drug concentration.
E-Is characterized by all listed features.

10-Biotransformation (metabolism) of drugs usually results in products that are likely to:
A-Have wide tissue distribution.
B-Produce severe side effects.
C-Be inactive pharmacologically.
D-Interact with target receptors similar to the parent drug.
E-Be more effective than parent drug.

11-When drugs are administered orally:
A-Active transport is the main mechanism of drug absorption.
B-Tthe stomach is the major site of absorption.
C-Gastric emptying does not effects the rate of drug absorption.
D-The pharmacological response tend to be rapid.
E-Incomplete absorption is likely consequence.

12-Drug interaction with target receptor:
A-Depends on chemical structures of both the drug and the receptor.
B-Can lead sometimes to G protein activation.
C-Is likely to be followed by a specific cellular response.
D-Can be inhibited by selected antagonists.
E-Is characterized by all of the listed facts.

13-Drug administered rectally are:
A-Not subjected to first pass hepatic effect.
B-Characterized by predictable pattern of absorption.
C-In general no favored by the patients.
D-Likely to be complicated with severe vomiting.

E-Characterized by all of the listed facts.

14-Which of the following statements is true about drug binding to plasma proteins:

A-Binding is an irreversible process.
B-Bound drug is pharmacologically inactive.
C-Drug-protein complex is effectively excreted in urine.
D-Drugs are mainly bound to plasma globulin.
E-None of the listed statements.

15- Which of the following is the most frequent mechanism of drug transport across biological membranes?

A-Passive diffusion.
B-Active transport.
C-Filtration.
D-Carrier-mediated process.
E-All of the listed mechanism have comparable frequency.

16-Which of the following process is considered a pharmacokinetic process in pharmacology?

A-Drug transport across biological membranes.
B-Drug-receptor interaction.
C-Dose-response relationships.
D-Mechanism of drug action.
E-Toxicological response of drugs.

17-The elimination half-life (T1/2e) of the drug:

A-is likely to reflect the duration of drug action.
B-is correlated with the elimination rate constant (Ke) of drug.
C-is useful for the estimation of dose interval (T).
D-cannot be estimated for drugs eliminated via zero-order kinetics.
E-is associated by all of the listed facts.

18-For drug with half-life elimination (T1/2e) of 250 minutes administered by I.V. infusion the therapeutic plasma steady state concentration (Css) "95% of the theoretical value" is expected to be achieved at:

A-67 minutes.
B-20 hours .
C-12 hours.
D-2days.
E-One week.

19-If administration of ammonium chloride as a weak acid increases the urinary clearance of drug X. it is reasonable that this drug(X) is:

A-Weak acid.
B-Weak base.
C-Strong acid.
D-Strong base.
E- Neutral compound.

20-If 88% of a drug dose is eliminated, via first-order kinetics, in 120 hours then the half-life of elimination (T1/2e) is expected to be:

A-15 hours.
B-40 hours.
C-60 hours.
D-120 hours.
E-Greater than 120 hours.

21-A pharmacological response might be delayed, reduced, or blocked by all of the following, EXCEPT:

A-Drug that goes rapid distribution.
B-a drug that does not get its site of action.
C-Abnormal target receptor.
D-Lack of absorption at site of administration.
E-The drug that is not soluble in water.

22-Aspirin is a weak organic acid with a pKa of 3.5 what % of a given dose of aspirin will be unionized at stomach pH of 2.5?

A-1%
B-10%
C-50%
D-90%
E-99%

23-Drugs that are highly bound (greater than 90%) to plasma protein are likely to:

A-Be associated with large volume of distribution (Vd).
B-Have very short half-life off elimination(T1/2e).
C-Be associated with wide therapeutic index (TI).
D-Have short duration of action.
E-Be characterized by low renal clearance values.

24-Drugs associated with high efficacy are characterized by:

A-Small therapeutic dose.
B-High therapeutic dose.
C-Low therapeutic indices.
D-High bioavailability.
E-None of the listed characteristics.

25-Intravenous route of drug administration is associated with:

A-Absence of an absorption process.
B-High risk of systemic toxicity.
C-Rapid response.
D-Potential risks of topical and systemic infections.
E-All of the listed features.

26-Which of the following is the expected loading dose (Dl) of a drug having volume of distribution (Vd) value of 150 liter, if desired plasma concentration is 5 microgram/ml?

A-225 mg
B-450 mg
C-750 mg
D-1.5 mg
E-5.0 mg

27-The therapeutic index (TI) of a drug reflects its:
A-Efficacy.
B-Duration of action.
C-Relative safety.
D-Onset of effect.
E-Potency.

28-Pharmacodynamics deals with all of the following processes EXCEPT:
A-Mechanism of drug action.
B-Drug interaction with its specific receptor.
C-Dose-response relationships.
D-Mmechanism of drug excretion.
E-Toxicological responses of drugs.

29-Estimation of the maintenance (Dm) of drug depends on all of the following EXCEPT:
A-The dose interval (T).
B-The desired plasma steady state concentration (Css).
C-The absorption rate constant (Ka).
D-The drug Bioavailability (F).
E-Systemic clearance (CL).

30- All of the following are excitatory CNS neurotransmitters, EXCEPT:
A-Acetylcholine.
B-Norepinephrine.
C-Dopamine.

D-GABA.
E-Glutamate.

31-All of the following are therapeutic uses of the benzodiazepines, EXCEPT:
A-Anxiety disorders.
B-Skeletal muscle spasm.
C-Sleep disorders “insomnia”.
D-Preanesthetic medication.
E-Ethanol and barbiturate overdose.

32-All the following are regarded as mechanisms of action of CNS drugs, EXCEPT:
A-Blockade of neurotransmitter synthesis.
B-Interference of with storage of neurotransmitters.
C-Stimulation of metabolism of neurotransmitters.
D-Stimulation of release of neurotransmitters.
E-Interaction with specific postsynaptic receptors.

33-Hypertensive reactions (cheese reaction) in responsible to food of high tramine contact is a common complication of treatment with:
A-Phenelizine.
B-Imipramine.
C-Proxetine .
D-Clozapine.
E-Aripiprazole.

34-the biological abnormality in the Pathophysiology of depression:
A-Dopamine and serotonin excess.
B-Norepinephrine and serotonin efficiency.
C-Dopamine deficiency.
D-Acetylcholine excess.
E-None of the listed.

35-Chloropromazine as an antipsychotic drug is characterized by its:

A-Dopamine-receptors blocking activity in the brain.

B-5-HT-receptors blocking activity in the brain.

C-Blockade of cholinergic transmission.

D-a-adrenergic and histamine-1receptors blocking effects.

E-All of the listed statements are correct.

36-Imipramine as a tricyclic anti depressant can produce the following adverse drug reactions EXCEPT:

A-Nocturnal enuresis.

B-Dry mouth .

C-Tachycardia.

D-Sedation.

E-Sexual dysfunction.

37- Long action Drug to treat glaucoma :

A- Ecothiophate

B- carbecan

C- pilocarpine

Q#	1	2	3	4	5	6	7	8	9	10	11	12
Key A	D	C	C	B	A	D	E	A	D	C	E	E
Q#	13	14	15	16	17	18	19	20	21	22	23	24
Key A	C	B	A	A	E	B	B	B	A	D	E	E
Q#	25	26	27	28	29	30	31	32	33	34	35	36
Key A	E	C	C	D	C	D	E	C	A	B	E	A
Q#	37											
Key A	A											

Done By : **Elmi Faradheere**,

Best wishes