

Final Year B.Pharm. Semester VIII
SUBJECT- Clinical Pharmacy
PRACTICE MULTIPLE CHOICE QUESTIONS WITH ANSWER KEY'S

1. Type I ADR reactions is _____
 - a) Caused when T-cells bind to a specific antigen
 - b) Caused by tissue injury
 - c) IgE mediated
 - d) Caused by cytotoxic antibodies

2. Average time period for phase II clinical trials study is _____
 - a) Upto 4 year
 - b) Upto few month
 - c) Upto Two year
 - d) Upto several year

3. _____ drug can cause lactic **acidosis**.
 - a) Metformin
 - b) Pioglitazone
 - c) Repaglinide
 - d) Glibenclamide

4. The incidence ADR is highest in _____.
 - a) Children
 - b) Elderly
 - c) Women
 - d) Men

5. _____ antihypertensive therapy should be avoided in type-1 diabetes mellitus
 - a) ACE inhibitors
 - b) High dose diuretics
 - c) Centrally acting
 - d) calcium channel blockers

6. _____ is an example of Category X drugs
 - a) Diclofenac
 - b) Ranitidine
 - c) Lorazepam
 - d) Paracetamol

7. _____ is indicated in agitation and restlessness in the elderly, despite the high incidence of extrapyramidal side-effects.
 - a) Prochlorperazine
 - b) Clozapine
 - c) Haloperidol
 - d) Flupentixol

8. _____ is contraindicated during pregnancy due to its Teratogenicity.
- Folic acid
 - Calcium
 - Retinol
 - Iron
9. _____ commonly reported ADR of diuretic class of drugs.
- Hypokalemia
 - Alopecia
 - Skin disorder
 - Rhinitis
10. Which of the following responsibility of the clinical pharmacist is in direct patient care area?
- Supervision of drug administration techniques.
 - Providing drug information to physicians and nurses.
 - Identify drugs brought into the hospital by patients.
 - Reviewing of each patient's drug administration forms periodically to ensure all doses have been administered.
11. Which of the following responsibility of community pharmacist is in dispensing area?
- Reviews all doses missed, reschedule the doses as necessary & signs all drugs not given notices.
 - Supervision of drug administration.
 - Ensures that establishes policies & procedures are followed.
 - Reviewing of each patient's drug administration forms periodically to ensure all doses have been administered.
12. The most specific & sensitive method for assessment of compliance can be used to detect potent therapeutic agent in body fluids is
- Drug analysis.
 - Interrogation.
 - Urine marker.
 - Residual Tablet counting.
13. Which of the following reaction is called Augmented adverse drug reactions?
- Genetically determined effects.
 - Idiosyncrasy.
 - Rebound effect on discontinuation
 - Allergic reactions & anaphylaxis.

14. Which one of these is a genetically determined adverse drug reactions?
- Addiction.
 - Teratogenicity.
 - Carcinogenicity.
 - Idiosyncrasy.
15. _____ causes pharmacodynamic drug interaction.
- Gastric motility changes.
 - Stimulation of metabolism.
 - Alteration of pH of GIT.
 - Interactions at receptor site.
16. The age related physiological change in geriatric patient which may affect drug distribution is
- Increased body mass.
 - Increased total body water.
 - Increased total body fat.
 - Increased serum albumin level.
17. Organogenesis occurs during _____ stage.
- Pre-embryonic.
 - Embryonic.
 - Pre-Fetal.
 - Fetal.
18. _____ absorption in infants and children is noticeably faster than in neonatal period.
- Oral.
 - Topical
 - Intravenous.
 - Intramuscular.
19. Which of the following drug does not require therapeutic drug monitoring?
- Digitoxin.
 - Gentamycin.
 - Phenytoin.
 - Paracetamol

20. Autonomy in clinical studied is defined as

- a) Freedom, dignity and confidentiality of the subject; right to choose i.e. whether or not to participate in the trial or to continue with it.
- b) Motive to do good to the subject and/or the society at large.
- c) Not to do harm or put the participant at undue risk/disadvantage.
- d) Observance of fairness, honesty and impartiality in obtaining, analyzing & communicating the data.

21. _____ is an example of latent adverse drug reactions.

- a) Antibiotic-associated diarrhea
- b) Tardive dyskinesia
- c) Serum sickness
- d) Severe bronchoconstriction

22 .Mechanism by which adrenaline can prolong the duration of local anesthesia

- a) Decreased permeability of the vascular endothelium
- b) Precipitation of lidocaine
- c) Changing the pH of the solution
- d) Local Vasoconstriction

23. _____ antidiabetic drug is preferred for elderly patient

- a) Gliclazide
- b) Glibencamide
- c) Metformin
- d) Pioglitazone

24.Side effects of Valproic acid is _____

- a) Rhinitis
- b) Thrombocytopenia
- c) Hypothyroidism
- d) Confusion

25. _____ side effect is seen during the treatment with Levodopa

- a) Dyskinesias
- b) Bone marrow depression
- c) Thombocytopenia
- d) Impotence

26. _____ drug is usually avoided with breastfeeding.

- a) Ibuprofen
- b) propranalol
- c) Methotrexate
- d) Naproxen

27. The sponsor in clinical study is

- a) Country.
- b) Organisation.
- c) Society.
- d) Cohort.

28. The written details for conduct trails to ensure quality control of trail is known as

- a) GCP.
- b) SOP.
- c) IEC.
- d) ADR.
- e)

29. Science of collecting, monitoring, researching, assessing and evaluating information from healthcare providers and patients on the adverse effects of medications is known as

- a) Pharmacovigilance.
- b) Clinical Trails.
- c) Observational study.
- d) Qualitative study.

30. An epidemic that becomes unusually widespread and even global in its reach is referred to as

- a) Pandemic.
- b) Hyperendemic.
- c) Spanish flu.
- d) Endodermic.

31. OECD stands for

- a) Outcome economy committee development.
- b) Organization for Economic Co-operation and Development.
- c) Out entry contact dossier.
- d) Organization for Evasive Co-operation and Development.

32. Which is appropriate description of Average Costs?

- a) The value of opportunities which have been lost by utilizing resources in particular service or health technology.
- b) The total costs (i.e. all the costs incurred in the delivery of a service) of a health care system divided by the units of production.
- c) Independent of the number of units of production and include heating, lighting and fixed staffing costs.
- d) The cost of the consumption of medicines is a good example of variable costs.

33. _____ drug is avoided in children's under 4 years with diarrhea.

- a) bisacodyl
- b) loperamide
- c) Bismuth subsalicylate
- d) Ciprofloxacin

34. All are Selected Cytochrome P3A4 Inducer EXCEPT _____
- a) Efavirenz
 - b) Erythromycin
 - c) Dexamethasone
 - d) Nevirapine
35. _____ is the common and dose related side effect of salbutamol.
- a) Decrease in blood pressure
 - b) Muscle tremor
 - c) Central nervous system stimulation
 - d) Hyperglycaemia
36. According to Rawlins–Thompson classification Type D ADR includes _____
- a) Carcinogenesis
 - b) Bradycardia associated with beta blockers
 - c) Anaphylaxis associated with penicillin
 - d) Opiate withdrawal syndrome
37. The comparison of bioavailability between two dosage forms is refereed as _____
- A. Bioavailability
 - B. Biopharmaceutics
 - C. Biological
 - D. Bioequivalence
38. The highest serum drug concentration following a single dose or at a steady state within a dosing interval is called
- A. Lead
 - B. Peak
 - C. Poison
 - D. Mechanisms
39. Why should care be taken when prescribing warfarin and amiodarone in combination?
- A. Amiodarone and warfarin both have an anticoagulant effect.
 - B. Amiodarone may reverse the anticoagulant effect of warfarin.
 - C. Amiodarone may increase the anticoagulant effect of warfarin.
 - D. Warfarin may reverse the antiarrhythmic effect of amiodarone.

40. The substantial degradation of an orally administered drug caused by enzyme metabolism in the liver before the drug reaches the systemic circulation.
- A. First-pass metabolism
 - B. Disposition
 - C. Antagonist
 - D. Hydrophilic
41. According to ICH GCP the investigator "should be qualified by.....
- A. Training and experience
 - B. Education, training and experience
 - C. Education and experience
 - D. Education and training
42. Pharmaceutical equivalent that produce the same effects in patients
- A. Therapeutic equivalent
 - B. Therapeutic window
 - C. Minimum effective concentration (MEC)
 - D. Minimum toxic concentration (MTC)
43. How are prescription medicines different from OTC ones?
- A. They contain much smaller amounts of active ingredients
 - B. They don't contain dyes or preservatives
 - C. They're unsafe for use without medical supervision
 - D. They can be toxic
44. The _____ is the heart of the patient counselling session
- A) Preparing for the session.
 - B) Opening the session.
 - C) Counselling content.
 - D) Closing the session.
45. Which of the following drug is implicated in the causation of osteomalacia of the bone?
- A. Steroid
 - B. Estrogen
 - C. Heparin
 - D. Phenytoin

46. Which of the following drug can result in result in cyanide poisoning?

- A. Amyl nitrite
- B. Hydroxycobalamine
- C. Sodium nitroprusside
- D. Sodium thiosulphate

47. According to the principles of ICH GCP what should be recorded, handled, and stored in a way that allows its accurate reporting, interpretation and verification?

- A. Data entered into the case report form
- B. Source information
- C. All clinical trial information
- D. Essential documents

48. According to the principles of ICH GCP, what is the most important consideration when conducting a clinical trial?

- A. data accuracy
- B. protection of trial subjects
- C. Process adherence
- D. Statistical quality checks

49. What is informed consent in a clinical trial?

- a) The subjects do not know which study treatment they receive
- b) Patients injected with placebo and active doses
- c) Fake treatment
- d) Signed document of the recruited patient for the clinical trial procedures

50. How many people will be selected for phase II trial?

- a) The whole market will be under surveillance
- b) 500-3000 people
- c) 100-300 people
- d) 20-50 people

51. Which of the following is a valid therapeutic use of interaction?

- A. Use of Probenecid with Penicillin
- B. Giving Aspirin with warfarin
- C. Instructing patient to take levofloxacin with milk or antacid
- D. Treatment of depression of MAO Inhibitor and Citalopram

52. Which of the following antihypertensive agents should be avoided in the elderly patients?

- A. Amlodipine
- B. Atenolol
- C. Benazepril
- D. Methyldopa

53. Which of the following medication is safe to use in the third trimester of pregnancy?

- A. Acetaminophen
- B. Warfarin
- C. Aspirin
- D. Oxycodone

54. Case control studies is called as

- A. Drug-oriented systems.
- B. Dose-oriented systems.
- C. Disease-oriented systems.
- D. Complication-oriented systems.

55. A 92-year-old woman is an inpatient in the geriatric unit. She has multivascular dementia. She is more confused and agitated. She has been given lorazepam 4 mg intramuscularly. She is now unconscious with a generalized tonic clonic seizure and a respiratory rate of 6 breaths per minute.

Which of the following could be used to reverse the effects of the lorazepam?

- A. Activated charcoal
- B. Flumazenil
- C. N-acetyl cysteine
- D. Naloxone
- E. Protamine sulphate

56. _____ of clinical trial involves first time human trial in a small number of patients.

- a Phase I
- b Phase II
- c Phase III
- d Phase IV

57. The purpose of preclinical testing is:
- To verify that a drug is sufficiently safe and effective to be tested in humans.
 - To undergo preliminary testing in healthy humans to monitor the effects of the drug.
 - To create a basic outline for the larger scale future tests on a widespread population.
 - To develop method of drug analysis
58. Cimetidine interacts with more drugs than ranitidine because;
- It is subjected to greater first pass metabolism
 - It is a more potent enzyme inducer
 - It is a more potent enzyme inhibitor
 - It has better oral absorption
59. What are Good Clinical Practices?
- Regulations set in place by Government that how clinical trials are supposed to be managed.
 - Clinical practices that adhere to the best standards of care.
 - Widely accepted standards of practice during clinical trials
 - The FDA's requirements for how trials are conducted and documented
60. Which is person responsible for the conduct of the clinical trial at a trial site?
- Clinical Research Coordinator
 - Monitor
 - Investigator
 - Sponsor
61. GCP provides public assurance that
- Rights and safety of participants are protected
 - The rights, safety and wellbeing of research participants are protected and that research data are reliable.
 - Results are reliable
 - Safety of participant is observed and results are reliable
62. Which of the following is a technique pharmacists can use to humanize themselves to their patients?
- Using the patient's preferred name in conversation
 - Delegating as many tasks as possible to an assistant
 - Reading the text of a medication bottle verbatim to a patient
 - Providing business cards at the desk
63. Which of the following terms does not describe an Adverse Drug Reaction?
- Idiosyncrasy
 - Anaphylaxis
 - Teratogenic effect
 - Placebo effect

64. A 75-year-old man had been receiving gentamicin (an aminoglycoside antibiotic) to treat an urinary tract infection. After three months of therapy patient's serum creatinine levels were 10 mg/dL (normal 0.5-1.2) and serum gentamicin concentrations obtained just before the last dose were 9 mg/dL (normal < 2). Which of the following is the most likely adverse drug reaction the patient was suffering from?

- a) Type II allergic reaction
- b) Type III allergic reaction
- c) Pseudo allergic reaction
- d) Overdose toxicity

65. Idiosyncrasy is_____.

- a) Type A ADRs
- b) Type B ADRs
- c) Type C ADRs
- d) Type D ADRs

66. Which of the following drug is not needed to be TDM?

- a) Carbamazepine.
- b) Penicillin.
- c) Digoxin.
- d) Gentamicin.

67. Patient counselling helps to

- a) Know chemical structure of drug
- b) Develop business relations with pharmacist
- c) Motivate the patient to take medicine for improvement of his/her health status.
- d) Pass time at old age

68. Gary baby syndrome occur in new born with

- a) Tetracycline
- b) Chloramphenicol
- c) Penicillin
- d) Erythromycin

69. Absorption of Griseofulvin increases with -----diet.

- a) Carbohydrate
- b) Fatty
- c) protein
- d) vitamin

70. When tetracycline is given with antacids the absorption of tetracycline

-----.

- a) Increases
- b) Decreases
- c) Minimally altered
- d) Not altered at all

71. Which of the following would you classify as a pharmacodynamics interaction?

- a) ACE inhibitors with potassium-sparing diuretics cause life-threatening hyperkalaemia
- b) Antacids reduce the absorption of fluoroquinolones
- c) Increased bleeding due to cimetidine and warfarin
- d) Probenecid increases half-life of penicillin

72. Which of the following is Type B ADRS?

- a) Hypoglycaemia caused by Insulin
- b) Dryness of mouth caused by Atropine
- c) Anaemia in patient with G6PD deficiency caused by Primaquine
- d) Hyperglycaemia caused by thiazide diuretics

73. Pharmacovigilance is done for monitoring of

- a) Drug price
- b) Unethical practises
- c) Drug safety
- d) Pharmacy students

74. GCP are seen in all of the following except

- a) Phase I trial
- b) Phase II trial
- c) Preclinical trials
- d) Phase IV trial

75. Which of the following adverse drug reactions would you report to the Medicines and Healthcare Products regulatory Agency (MHRA) via the yellow card system for reporting?

- a) A patient reports a skin rash after starting a course on amoxicillin capsules.
- b) A patient reports experiencing dyspepsia when they take their indomethacin capsules.
- c) A patient complains of a dry irritating cough since they have started taking ramipril.
- d) A patient complains they have experienced diarrhoea since taking azilsartan.

76. You are asked to compare the cost of four different antibacterial medicines. Which of the following treatment courses is the lowest cost?

- a) Medicine A costs £17.00 for 28 tablets. The adult dose is one tablet twice a day and the usual treatment duration is 7 days.
- b) Medicine B costs £30.00 for 100 tablets. The adult dose is one tablet four times a day and the usual treatment duration is 7 days.
- c) Medicine C costs £20.00 for 25 tablets. The adult dose is one tablet twice a day and the usual treatment duration is 5 days.
- d) Medicine D costs £25.00 for 14 tablets. The adult dose is one tablet each day and the usual treatment duration is 5 days.

77. Which of the following patients are at the highest risk of suffering from an adverse drug reaction?

- a) An 8 month year old infant receiving a prescription for an antibiotic.
- b) A 22 year old patient with asthma receiving prescriptions for inhalers to relieve and prevent their asthma.
- c) A 48 year old patient who has hypertension and receives a prescription for an ACE Inhibitor.
- d) A 68 year old patient who has oedema receiving a prescription for a diuretic.

78. Which of the following statements best describes a lead compound?

- a) A compound that contains the element lead
- b) A compound from the research laboratory that is chosen to go forward for preclinical and clinical trials.
- c) A molecule that shows some activity or property of interest and serves as the starting point for the development of a drug.
- d) The first compound of a structural class of compounds to reach the market.

-----x-----x-----

ANSWER KEY

Question No.	Correct Option
1	c
2	c
3	a
4	b
5	c
6	c
7	c
8	c
9	a
10	d
11	b
12	a
13	c
14	B
15	d
16	b
17	b
18	a
19	d
20	a
21	b
22	d
23	a
24	b
25	a
26	c
27	b
28	B
29	A
30	a
31	b
32	b
33	d
34	b
35	c
36	a

Question No.	Correct Option
37	D
38	B
39	C
40	A
41	B
42	A
43	C
44	C
45	D
46	C
47	C
48	B
49	D
50	C
51	A
52	D
53	A
54	B
55	B
56	A
57	A
58	C
59	D
60	C
61	B
62	C
63	D
64	D
65	B
66	B
67	C
68	B
69	B
70	B
71	A
72	C
73	C
74	C
75	D
76	C
77	D
78	C

