

PROVISIONAL ANSWER KEY

Question 28/2024/OL

Paper Code:

Category 349/2023

Code:

Exam: Assistant Professor in Pharmacology

Date of Test 20-03-2024

Department Medical Education

Question1:-Which of the following is an example for supra additive synergism?

A:-Nitrous oxide + Halothane

B:-Levodopa + Carbidopa

C:-Amlodipine + Atenolol

D:-Glibenclamide + Metformin

Correct Answer:- Option-B

Question2:-All are examples of pharmacogenetically mediated adverse effects except

A:-Tardive dyskinesia by neuroleptics

B:-Acetylator status of isoniazid

C:-Malignant hyperthermia of halothane

D:-Acute intermittent porphyria by barbiturates

Correct Answer:- Option-A

Question3:-All the following molecules act through JAK/STAT receptors except

A:-Growth hormone

B:-Interferon

C:-Cytokine

D:-Thyroxine

Correct Answer:- Option-D

Question4:-Which of the following drugs produce phototoxicity?

i. Amiodarone

ii. Sulfonamides

iii. Phenothiazines

iv. Phenytoin

A:-(i, ii, iii) only

B:-(i, iii, iv) only

C:-(i, ii, iv) only

D:-(ii, iii, iv) only

Correct Answer:- Option-A

Question5:-Characteristic features of intramuscular route of drug administration

- i. Hypertonic solution can be injected
- ii. Only water solutions can be injected
- iii. Oily solutions can be injected

A:-only i

B:-only ii

C:-only iii

D:-all of the above

Correct Answer:- Option-C

Question6:-Which of the following statements are correct about Meta-analysis?

- i. Cannot prove cause and effect
- ii. Evaluation and grouping of similar studies
- iii. Aim is to decrease the number of subjects studied

A:-Only (i and ii)

B:-Only (i and iii)

C:-Only (ii & iii)

D:-All of the above

Correct Answer:- Option-A

Question7:-Which statement is not true about transdermal therapeutic system?

A:-provides smooth plasma concentration of the drug

B:-better patient compliance

C:-more inter individual variations

D:-mild local adverse effects

Correct Answer:- Option-C

Question8:-Among the following combinations which is not a CYP3A4 substrate and its inhibitor?

A:-Carbamazepine - Clarithromycin

B:-Simvastatin - Itraconazole

C:-Losartan - Verapamil

D:-Metoprolol - Nevirapine

Correct Answer:- Option-D

Question9:-All are indications of therapeutic drug monitoring except

A:-Drugs with high inter-individual variation in plasma concentration

B:-Drugs with irreversible actions

C:-Monitoring of patient compliance

D:-Drugs whose therapeutic effect cannot be determined clinically

Correct Answer:- Option-B

Question10:-Which of the following statements are correct about clinical trial?

- i. Phase I - Dose range, safety and etolerability, only in patients
- ii. Phase II - Therapeutic efficacy and dose range in patients
- iii. Phase III - Drug safety and tolerability in large number of patients
- iv. Phase IV - Therapeutic efficacy in large number of patients

A:-(i and ii) only

B:-(ii and iii) only

C:-(i and iv) only

D:-(ii and iv) only

Correct Answer:- Option-B

Question11:-Systemic clearance of a drug is directly related with all the following except

A:-Bioavailability

B:-Volume of distribution

C:-Plasma half-life

D:-Elimination rate constant

Correct Answer:- Option-A

Question12:-Which statement is not true about OATP1B1 transporter?

A:-More than 40 nonsynonymous variants

B:-Encoded by 8hCO1B1 gene

C:-Polymorphism increases transport of OATP1B1 substrates

D:-Responsible for the hepatic uptake of weakly acidic drugs

Correct Answer:- Option-C

Question13:-Which schedule under the drugs and cosmetics rules, 1945 deals with the prescription of tramadol and pentazocine?

A:-Schedule C1

B:-Schedule E1

C:-Schedule F1

D:-Schedule H1

Correct Answer:- Option-D

Question14:-Among the following benzodiazepines which is preferred in elderly individuals?

A:-Diazepam

B:-Lorazepam

C:-Flurazepam

D:-Midazolam

Correct Answer:- Option-B

Question15:-Quality Adjusted Life Years (QALYS) is a measure of which pharmaco economic analysis

A:-Cost-effectiveness analysis

B:-Cost-minimization analysis

C:-Cost-utility analysis

D:-Cost-risk analysis

Correct Answer:- Option-C

Question16:-Botulinum toxin is beneficial in all except

A:-age related facial wrinkles

B:-post operative paralytic ileus

C:-Spastic cerebral palsy

D:-Axillary hyper-hydrosis

Correct Answer:- Option-B

Question17:-Among the following drugs which is not useful in acute congestive glaucoma

A:-Dipivefrine

B:-IV Mannitol

C:-Glycerol

D:-Acetazolamide

Correct Answer:- Option-A

Question18:-All are advantages of third generation β blocker Nebivolol except

A:-Absence of hyperlipidemia

B:-Increases insulin sensitivity

C:-Enhances nitric oxide production

D:-Slow onset of hypotensive response

Correct Answer:- Option-D

Question19:-All are properties of halothane except

A:-Potent anaesthetic agent

B:-Good analgesic agent

C:-Potentiates competitive neuromuscular blockers

D:-Can produce cardiotoxicity

Correct Answer:- Option-B

Question20:-Which adverse effect is more seen with pentazocin than with morphine?

A:-Biliary spasm

B:-Constipation

C:-Hypertension

D:-Vomiting

Correct Answer:- Option-C

Question21:-All are AMPA blockers used as antiepileptic drugs except

A:-Topiramate

B:-Lamotrigine

C:-Perampanel

D:-Felbamate

Correct Answer:- Option-D

Question22:-Which of the following statement is not true about Agomelatine an atypical antidepressant drug?

A:-Agonist on MT1 receptor

B:-Agonist on MT2 receptor

C:-Antagonist on 5HT2A receptor

D:-Antagonist on 5HT2C receptor

Correct Answer:- Option-C

Question23:-All are adverse effects of clozapine which is an atypical antipsychotic agent except

A:-Agranulocytosis

B:-Acute muscular dystonia

C:-Myocarditis

D:-Metabolic syndrome

Correct Answer:- Option-B

Question24:-Baclofen is a centrally acting skeletal muscle relaxant used to treat following clinical conditions except

A:-Amyotrophic lateral sclerosis

B:-Cerebral palsy

C:-Spinal injuries

D:-Multiple sclerosis

Correct Answer:- Option-B

Question25:-All are properties of local anesthetic agent Ropivacaine

i. Short acting

ii. Less cardiotoxicity

iii. Blocks Aδ and C fibres completely

iv. Used epidurally for labour pain

A:-(i and ii) only

B:-(i, ii and iii) only

C:-(ii, iii and iv) only

D:-All of the above

Correct Answer:- Option-C

Question26:-Which among the following beta blocker has the longest half life?

A:-Metoprolol

B:-Bisoprolol

C:-Carvedilol

D:-Propranolol

Correct Answer:- Option-B

Question27:-Which of the following calcium channel blockers can delay the progression of early stages of type I diabetes by improving the survival of pancreatic beta cells?

A:-Verapamil

B:-Diltiazem

C:-Felodipine

D:-Cilnidipine

Correct Answer:- Option-A

Question28:-Choose the drug which attenuates platelet aggregation by antagonising thromboxane A_2 receptor :

A:-Losartan

B:-Candesartan

C:-Telmisartan

D:-Olmesartan

Correct Answer:- Option-A

Question29:-In patients with diabetes and chronic kidney disease which of the following drugs can reduce heart failure events and renal function decline

A:-ISDN/Hydralazine

B:-Ivabradine

C:-Finerenone

D:-Levosimendan

Correct Answer:- Option-C

Question30:-The following antiarrhythmic drug produces anticholinergic side effects

A:-Procainamide

B:-Mexiletine

C:-Disopyramide

D:-Flecainide

Correct Answer:- Option-C

Question31:-Which of the following drug is the first line therapy for severe Pulmonary Artery Hypertension (Functional Class IV)

A:-Treprostinil

B:-Riociguat

C:-Ambrisentan

D:-Epoprostenol

Correct Answer:- Option-D

Question32:-Idarucizumab is a reversal agent for toxicity due to

A:-Dabigatran

B:-Rivaroxaban

C:-Apixaban

D:-Betrixaban

Correct Answer:- Option-A

Question33:-Which of the following antiplatelet drug has rapid onset of action and a circulating half life of 3 to 4 days?

A:-Abciximab

B:-Ticagrelor

C:-Cangrelor

D:-Vorapaxar

Correct Answer:- Option-D

Question34:-Evolocumab is a

A:-Liver microsomal triglyceride transfer protein inhibitor

B:-ATP-Citrate Lyase Inhibitor

C:-Proprotein convertase subtilisin/Kexin type 9 inhibitor

D:-Angiopoietin-Like protein 3 inhibitor

Correct Answer:- Option-C

Question35:-Thrombopoietin Receptor Agonist (TRAs) preferred in chronic hepatitis C virus (HCV) associated thrombocytopenia

A:-Romiplostim

B:-Eltrombopag

C:-Avatrombopag

D:-Lusutrombopag

Correct Answer:- Option-B

Question36:-GnRH agonist which can be given intranasally is

A:-Goserelin

B:-Nafarelin

C:-Deslorelin

D:-Histrelin

Correct Answer:- Option-B

Question37:-Which of the following statement regarding methimazole is correct

A:-is the drug of choice for Graves disease

B:-Multiple doses need to be given to produce desired effect

C:-Chance of liver toxicity more than propylthiouracil

D:-Methimazole is contraindicated in second and third trimester of pregnancy

Correct Answer:- Option-A

Question38:-Hypoactive Sexual Desire Disorder (HSDD) is treated with :

A:-Raloxifene

B:-Toremifene

C:-Ospemifene

D:-Bazedoxifene

Correct Answer:- Option-C

Question39:-Phosphodiesterase 5 (PDE5) inhibitor with maximum duration of action is

A:-Sildenafil

B:-Vardenafil

C:-Tadalafil

D:-Avanafil

Correct Answer:- Option-C

Question40:-Anti inflammatory potency is maximum for

A:-Fludrocortisone

B:-Prednisolone

C:-Triamcinolone

D:-Betamethasone

Correct Answer:- Option-D

Question41:-Inoperable adrenocortical carcinoma is treated with

A:-Mitotane

B:-Etomidate

C:-Osilodrostat

D:-Abiraterone acetate

Correct Answer:- Option-A

Question42:-Which of the following insulin preparation forms multihexameric complexes after sub cutaneous injection?

A:-Detemir

B:-Glargine

C:-Degludec

D:-Glulisine

Correct Answer:- Option-C

Question43:-The GLP-1 agonist approved for weight loss independent of diabetes status are

- i. Dulaglutide
- ii. Liraglutide
- iii. Lixisenatide
- iv. Semaglutide

A:- only (i and ii)

B:-only (i and iii)

C:-only (ii and iv)

D:-only (i and iv)

Correct Answer:- Option-C

Question44:-The following bisphosphonate is preferred in treatment of hypercalcemia because of its more rapid normalization of serum Ca^{2+} and longer duration of action

A:-Pamidronate

B:-Ibandronate

C:-Risedronate

D:-Zoledronate

Correct Answer:- Option-D

Question45:-The Vitamin D analogue used in the treatment of Psoriasis is

A:-Calcipotriol

B:-Paricalcitol

C:-Calcitriol

D:-Calcifediol

Correct Answer:- Option-A

Question46:-Diagnostic testing of cancer specimen for BRAF V 600 mutation is important in guiding treatment decision for the following drug

A:-Ceritinib

B:-Trametinib

C:-Crizotinib

D:-Afatinib

Correct Answer:- Option-B

Question47:-Most neurotoxic alkylating agent is

A:-Ifosfamide

B:-Carmustine

C:-Melphalan

D:-Busulfan

Correct Answer:- Option-A

Question48:-Which of the following drug is a very potent radiosensitizer and should not be used with radiotherapy?

A:-Decitabine

B:-Capecitabine

C:-Gemcitabine

D:-Cytarabine

Correct Answer:- Option-C

Question49:-Pancreatic Neuro Endocrine Tumor is treated with

A:-Sorafenib

B:-Pazopanib

C:-Axitinib

D:-Sunitinib

Correct Answer:- Option-D

Question50:-Abiraterone is used for the treatment of

A:-Metastatic renal cell carcinoma

B:-Metastatic prostate cancer

C:-Metastatic breast cancer

D:-Metastatic colon cancer

Correct Answer:- Option-B

Question51:-Bedaquiline acts by

A:-Inhibiting mycolic acid synthesis

B:-Inhibiting DNA dependent RNA polymerase

C:-Inhibiting squalene epoxidase

D:-Inhibiting Adenosine 5'triphosphate synthase in mycobacteria

Correct Answer:- Option-D

Question52:-Guanosine analogue with antiretroviral action is

A:-Zidovudine

B:-Emixtricitabine

C:-Abacavir

D:-Lamivudine

Correct Answer:- Option-C

Question53:-Orally effective antifungal antibiotic capable of inducing microsomal enzymes is

A:-Griseofulvin

B:-Caspofungin acetate

C:-Posaconazole

D:-Terbinafine

Correct Answer:- Option-A

Question54:-An orange dye which exerts analgesic action in urinary tract is

A:-Nitrofurantoin

B:-Methenamine

C:-Phenazopyridine

D:-Mandelic acid

Correct Answer:- Option-C

Question55:-Advantages of Artemisinin based combination therapy include all except

A:-Rapid clinical and parasitological cure

B:-Good tolerability profile

C:-High recrudescence rate

D:-Absence of parasite resistance

Correct Answer:- Option-C

Question56:-All are true about Linezolid EXCEPT

A:-It is bactericidal against enterococci

B:-It acts on 23S rRNA fraction of 50S ribosomal subunit

C:-It has nearly 100% oral bioavailability

D:-Thrombocytopenia is a common adverse effect

Correct Answer:- Option-A

Question57:-Minocycline, in comparison to Doxycycline,

A:-Attains higher concentration in tears and saliva

B:-Exhibits poor activity against mycobacterium leprae

C:-Exhibits higher incidence of photosensitivity

D:-Does not undergo extensive hepatic metabolism

Correct Answer:- Option-A

Question58:-The antimicrobial agent effective against pseudomonas is

A:-Cefazolin

B:-Ticarcillin

C:-Tigercycline

D:-Ampicillin

Correct Answer:- Option-B

Question59:-Topically effective sulphonamide preparation for bacterial

conjunctivitis is

A:-Sulfasalazine

B:-Sulfadiazine

C:-Sodium Sulfacetamide

D:-Sulfadoxine

Correct Answer:- Option-C

Question60:-Orally effective carbapenem, resistant to inactivation by renal dehydropeptidase is

A:-Imipenem

B:-Ertapenem

C:-Doripenem

D:-Meropenem

Correct Answer:- Option-D

Question61:-The mismatched pair among the following is

A:-Tiotropium bromide - Bronchodilator

B:-Ketotifen - PAF antagonist

C:-Pranlukast - Leukotriene synthesis inhibitor

D:-Omalizumab - Recombinant humanised anti IgE Monoclonal Antibody

Correct Answer:- Option-C

Question62:-All are uses of N Acetyl Cysteine except

A:-Captopril induced dry cough

B:-Dry Eyes

C:-Acute paracetamol poisoning

D:-Cyclophosphamide induced haemorrhagic cystitis

Correct Answer:- Option-A

Question63:-The CCK1/CCKA receptor antagonist that increases motility of the gastrointestinal tract is

A:- Sodium Alginate

B:-Lubiprostone

C:-Magaldrate

D:-Loxiglumide

Correct Answer:- Option-D

Question64:-New formula for WHO-ORS provides

A:-133 mM Na^+ , 13mM K^+ , 98 mM Cl^-

B:-75 mM Na^+ , 20mM K^+ , 65 mM Cl^-

C:-130 mM Na^+ , 4mM K^+ , 109 mM Cl^-

D:-85 mM Na^+ , 13 mM K^+ , 90 mM Cl^-

Correct Answer:- Option-B

Question65:-Emesis is induced by

A:-Aprepitant

B:-Nabilone

C:-Cyclizine

D:-Ipecacuanha

Correct Answer:- Option-D

Question66:-Active form of the Enkephalinase inhibitor, Racecadotril is

A:-Pinaverium

B:-Thiorphan

C:-Trimebutine

D:-Crofelemer

Correct Answer:- Option-B

Question67:-In Rheumatoid arthritis, Anakinra acts by

A:-Interleukin 1 receptor antagonism

B:-Inhibition of Calcineurin

C:-Interleukin 6 receptor antagonism

D:-Tumour necrosis factor alpha antagonism

Correct Answer:- Option-A

Question68:-Alprostadil effective in Erectile dysfunction in males is a

A:- PGI_2 analogue

B:- $PGF_{2\alpha}$ analogue

C:- PGE_2 analogue

D:- PGE_1 analogue

Correct Answer:- Option-D

Question69:-Longest acting $5HT_{1D/1B}$ agonist is

A:-Naratriptan

B:-Frovatriptan

C:-Zolmitriptan

D:-Rizatriptan

Correct Answer:- Option-B

Question70:-The true statement about probenecid is

A:-It is used in patients with gout and nephrolithiasis

B:-It should be taken with plenty of fluids

C:-Peptic ulcer is not a contraindication for its use

D:-It is effective in patients with serum creatinine more than 2 mg/dl.

Correct Answer:- Option-B

Question71:-Orally effective drug in scabies is

A:-Permethrin

B:-Crotamiton

C:-Ivermectin

D:-Benzyl benzoate

Correct Answer:- Option-C

Question72:-Drug effective in treatment of Vitiligo is

A:-Trioxsalen

B:-Hydroquinone

C:-Monobenzone

D:-Adapalene

Correct Answer:- Option-A

Question73:-Nephrotoxicity is less common with the use of

A:-Amphotericin B

B:-Cyclosporine

C:-Tacrolimus

D:-Sirolimus

Correct Answer:- Option-D

Question74:-Immunostimulant action is exhibited by

A:-Levamisole

B:-Methotrexate

C:-Azathioprine

D:-Pentostatin

Correct Answer:- Option-A

Question75:-Lowering of intraocular pressure is seen with the use of

A:-Tropicamide

B:-Neostigmine

C:-Tafluprost

D:-Cyclopentolate

Correct Answer:- Option-C

Question76:-Dimercaprol is contraindicated in

A:-Lead poisoning

B:-Cadmium poisoning

C:-Mercury poisoning

D:-Arsenic poisoning

Correct Answer:- Option-B

Question77:-Povidone Iodine is an example for

A:-Oxidising agent

B:-Anionic surfactant

C:-Dye

D:-Iodophore

Correct Answer:- Option-D

Question78:-Find the wrong pair

A:-Alemtuzumab - CD52

B:-Gemtuzumab -CD3

C:-Muromonab-CD3

D:-Rituximab-CD20

Correct Answer:- Option-B

Question79:-Read the assertion and reason statements and choose the single best response

Assertion (A) : Sildenafil causes impaired blue green discrimination

Reason (R): Sildenafil is a weak inhibitor of phosphodiesterase 6

A:-Both (A) and (R) are true and (R) is the correct explanation of (A)

B:-Both (A) and (R) are true but (R) is not the correct explanation of (A)

C:- (A) is true and (R) is false

D:-Both (A) and (R) are false

Correct Answer:- Option-A

Question80:-False statement about lorcaserin is

A:-It is a $5HT_{2C}$ agonist

B:-It has appetite suppressant action

C:-It is a cannabinoid receptor antagonist

D:-Headache, Dizziness, Dry mouth can occur as an adverse effect

Correct Answer:- Option-C

Question81:-Experimental animal commonly used for pyrogen testing

A:-Guineapig

B:-Mouse

C:-Rabbit

D:-Rat

Correct Answer:- Option-C

Question82:-According to prevention of Cruelty to Animals Act 1960, definition of 'animal' includes all except

A:-Cockroach

B:-Human beings

C:-Rat

D:-Monkey

Correct Answer:- Option-B

Question83:-Sodium dihydrogen phosphate is a constituent of

A:-De Jalon's solution

B:-Frog ringer solution

C:-Kerbs solution

D:-Tyrode solution

Correct Answer:- Option-D

Question84:-Which of the anesthetic agents is not suitable for the study of cardiovascular drugs in experimental animals

A:-Chloralose

B:-Ketamine

C:-Pentobarbitone

D:-Urethane

Correct Answer:- Option-C

Question85:-Which among the following can be used as a mobile phase in normal phase HPLC?

A:-Acetonitrile

B:-Chloroform

C:-Methanol

D:-Water

Correct Answer:- Option-B

Question86:-Which among the following is not used as a label in Radioimmunoassay

A:-Carbon-14

B:-Iodine-125

C:-Iodine-127

D:-Iodine-131

Correct Answer:- Option-C

Question87:-Mean total cholesterol values of 50 diabetic patients is 346 mg/dl with standard deviation of 20 and that of non-diabetics is 288 mg/dl with standard deviation 9. To compare these values, which statistical test is the most appropriate?

A:-Independent sample t test

B:-One sample t test

C:-Median test

D:-ANOVA

Correct Answer:- Option-A

Question88:-According to the empirical rule, approximately what percentage of the data should lie within $\pm 2SD$

A:-68%

B:-75%

C:-95%

D:-99.7%

Correct Answer:- Option-C

Question89:-If the data are normally distributed with a mean of 180 and standard deviation of 40. Between what two values will approximately 68% of the data fall

A:-140 and 220

B:-100 and 260

C:-60 and 300

D:-30 and 120

Correct Answer:- Option-A

Question90:-In a box and whisker plot, two sides of the box represent

A:- 3^{rd} and 97^{th} percentiles

B:- 3^{rd} and 97^{th} percentages

C:- 5^{rd} and 95^{th} percentiles

D:- 25^{th} and 75^{th} percentiles

Correct Answer:- Option-D

Question91:-Bradykinin receptor antagonist useful for symptomatic treatment of hereditary angioedema

A:-Ambristentan

B:-Donidalorsen

C:-Ecallantide

D:-Icatibant

Correct Answer:- Option-D

Question92:-An endocrine disrupting chemical is

A:-Aflatoxin B1

B:-Chromium

C:-Dichlorodiphenyltrichloroethane (DDT)

D:-Tetrachlorodibenzo-p-dioxin(TCDD)

Correct Answer:- Option-C

Question93:-The preferred drug in type 2 diabetes mellitus patient with patient with cardiac failure

A:-Empagliflozin

B:-Nateglinide

C:-Sitagliptin

D:-Voglibose

Correct Answer:- Option-A

Question94:-Which among the following is not an example of drug repurposing?

A:-Minoxidil for treatment of baldness

B:-Sildenafil for treatment of erectile dysfunction

C:-Thalidomide for multiple myeloma treatment

D:-Topiramate for treatment of epilepsy

Correct Answer:- Option-D

Question95:-Which among the statements regarding Semaglutide is incorrect?

A:-it is administered subcutaneously

B:-it causes weight gain in patients

C:-it has GLP-1 like action

D:-pancreatitis is an adverse effect

Correct Answer:- Option-B

Question96:-The drug useful for controlling delusions, hallucinations and psychosis in parkinson's disease

A:-Opicapone

B:-Pimavanserin

C:-Rotigotine

D:-Safinamide

Correct Answer:- Option-B

Question97:-Which among the following is not included in world Health Organisation's prescribing indicators

A:-Percentage of encounters with tablets prescribed

B:-Percentage of medicines prescribed by generic name

C:-Percentage of encounters with an antibiotic prescribed

D:-Percentage of medicines prescribed from essential medicines list

Correct Answer:- Option-A

Question98:-Which among the following is a Watch drug as per Aware classification of antimicrobials?

A:-Azithromycin

B:-Gentamicin

C:-Pencillin

D:-Meropenem

Correct Answer:- Option-A

Question99:-The partial nicotine receptor agonist useful in smoking cessation

A:-Bupropion

B:-Rimonabant

C:-Varenicline

D:-None of the above

Correct Answer:- Option-C

Question100:-The assumed average maintenance dose per day for a drug used for its main indication in adults is

A:-Defined daily dose

B:-Therapeutic range

C:-Therapeutic window

D:-Therapeutic dose

Correct Answer:- Option-A