(3 Hours) **Total Marks: 75**

N.B.: 1. All questions are compulsory
2. Figures to right indicate full marks

Q 1. Choose the correct answer and write the correct answer **20 M**

1 Which antithyroid medication works by inhibiting the synthesis of thyroid hormones?

a Methimazole

b Levothyroxine

c Liothyronine

d Propranolol

2 Which antidiabetic medication is commonly used in gestational diabetes?

a Acarbose

b Pioglitazone

c Nateglinide

d Insulin

3 Which class of antidiabetic drugs improves insulin sensitivity in peripheral tissues?

a Thiazolidinediones

b Alpha-glucosidase inhibitors

c Dipeptidyl peptidase-4 (DPP-4) inhibitors

d Sodium-glucose co-transporter 2 (SGLT2) inhibitors

4 Which of the following may decrease the effectiveness of oral contraceptives?

a Antibiotics

b Antihistamines

c Antacids

d Antidepressants

5 Corticosteroids should be used with caution in patients with which condition?

a Osteoporosis

b Hypothyroidism

c Gout

d Epilepsy

6 Antibiotic inhibiting the bacterial cell wall synthesis is _____

a Tetracycline

b Beta-lactam antibiotic

c Aminoglycoside

d Macrolide

7 Select the semisynthetic penicillin which is not acid resistant:

a Phenoxymethyl penicillin

b Ampicillin

c Carbenicillin

d Cloxacillin

8 Which of the following drug, inhibits uncoating of the viral RNA:

a Vidarabine

b Rimantadine

c Acyclovir

d Didanozine

9 Select the drug that is fungicidal and acts by inhibiting fungal squalene epoxidase enzyme

a Ketoconazole

b Terbinafine

c Tolnaftate

d Hamycin

10 Combined chemotherapy of tuberculosis is used to:

a Decrease mycobacterium drug-resistance

b Increase mycobacterium drug-resistance

c Decrease the antimicrobal activity

d Decrease the onset of antimycobacterial drugs biotransformation

11 Mechanism of action of alkylating agents is:

a Producing carbonium ions altering protein structure

b Producing carbonium ions altering DNA structure

c Structural antagonism against purine and pyrimidine

d Inhibition of DNA-dependent RNA synthesis

12 Which of the following agents is used as an inhalation drug in asthma?

a Atropine
b Ipratropium
c Lobeline
d Homatropine

13 Choose the drug used for toxoplasmosis treatment

a Chloroquine
b Tetracyclin
c Suramin
d Pyrimethamine

14 Class of sirolimus (rapamycin) is:

a Immunoglobulins
b Interferons
c Immunosuppressive agents
d Monoclonal antibodies

15 _____ is the example of circadian rhythm

a Menstruation
b Sleep wake cycle
c Brain activity
d Heart activity

16 The _____ is the pacemaker of circardian rhythm

a Suprachiasmatic nucleus
b Zeitgebers stimuli
c Retinihypothalamic tract
d Geniculohypothalamic tract

17 The direct light entrainment pathway is _____ in chronopharmacology

a Suprachiasmatic tract
b Retinohypothalamic tract
c Geniculohypothalamic tract
d Raphe hypothalamic tract

18 Disease that shows nocturnal pattern in circardian rhythm

a Viral infection

b Asthma

c Cancer

d Arthritis

19 The inducible nitric oxide synthase has crucial role in _____

a Vasoldilation

b Reduction of hydrogen peroxide

c Immunogenic response

d Oxidation of hydrogen peroxide

20 The Aducanumab ia an antibody that acts as _____ in Alzhiemer's disease.

a Plaque buster

b Cholinomimetic

c Anticholinesterase

d Glutamate antagonist

Q2 Answer **any Two** questions **20 M**

1 Give a detail account on pharmacotherapy of asthma.

2 Classify antiulcer agents. Discuss pharmacology of any two classes in detail

3 Discuss role of free radicals in etiopathology of Diabetes mellitus and give advances in Diabetes mellitus therapy on this basis.

Q3 Answer **any Five** questions **35 M**

1 Explain the Mechanism of action of insulin. Compare and contrast between sulfonylureas and biguanides as antidiabetic drugs.

2 Discuss mechanisms of action, clinical uses, and potential side effects of calcitonin as a calcium-regulating agent.

3 Classify cephalosporins. Discuss their mechanism of action and associated adverse effects.

4 Write a note on therapeutic uses of immunostimulants. Elaborate on immunostimulatory monoclonal antibodies.

5 Classify antimalerial drugs. Discuss their mechanism of action and side effects.

6 Explain in detail role of chronotherapy in hypertension and Ulcer.

7 Elaborate on role of glutathione and superoxide dismutase as protective antioxidant

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