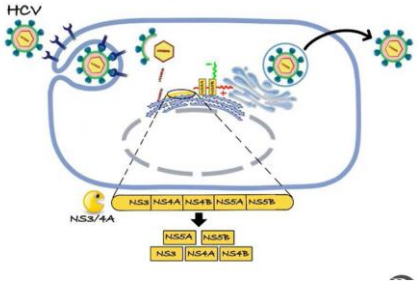
**Salahaddin University- Erbil**
**College of Science**
**Department of Biology**
**3rd Year Students**

**Subject: Pharmacology**

1- Define Chemoprophylaxis, then mention the conditions in which chemoprophylaxis is necessary.

2- Antimicrobial drugs exhibit various concentration- and time-dependent effects, enumerate them, and what are their effects on antimicrobial drugs.)

3- Referring to the figure below: Mention the two proteins which are an important target of anti-hepatitis C drugs, their function, and the antiviral drugs that inhibit them.




4- Write about the followings:

**A-** A condition now commonly seen in hospitals and nursing homes that arises from superinfections.

**B-** Plasmid-Mediated Drug Resistance

**C-** The CDKR with giving examples of drugs.

5- Mention the side effects of these drugs:

1- Penicillins 2- Tetracyclines 3- Aminoglycosides

6- Write the mechanism of action for the following drugs:

a- Glycopeptides b- Macrolides

7- Write why chloramphenicol is usually used only when no other alternatives are available.

8- Mycoplasma is inherently resistant to penicillin, why?

9- Clarify why Carbapenems usually is prescribed in synergistic combination with cilastatin.

10- Describe with a diagram the effect of acyclovir on not infected cell (with normal thymidine kinase) and in a virally infected cell (the thymidine kinase is altered)

11- What are Special Considerations in the treatment of parasitic worm infestations?

12- Explain the mechanism of *Plasmodia*l nutrition and how Chloroquine kills the organism

13- What are the mechanisms of action of Anthelmintic Drugs, In general?

14- Describe by a diagram, how Sulfa drugs block folic acid production.

15- Explain the mechanism of *Plasmodia*l nutrition and how Chloroquine kills the organism.

16- What are macrolides? When they are used? Write the mechanism of action and side effects.

17- Mention the advantages of drug combinations.

**18- Choose the correct answer**

**A- Levofloxacin is an example of**

a- Narrow antibacterial spectrum
b- Antibacterial against $G^{+ve}$ bacteria
c- Antibacterial against $G^{-ve}$ bacteria
d- Broad-spectrum antibiotics

**B- Acetyl transferases, inactivate**

a- Chloramphenicol
b- Beta-lactam antibiotics
c- Aminoglycosides
d- Penicillin

**C- Trimethoprim and sulfamethoxazole are examples of ……. that block .....…synthesis.**

A- Sulfonamides; PABA
B- Penicillins; cell wall
C- Sulfonamides; folic acid
D- Macrolides; protein

**D- It has emerged as a key treatment in therapy for MRSA**

**a-** Vancomycin
**b-** Neomycin
**c-** Gentamicin
**d-** Streptomycin

**E- All about bacitracin is true, *except***

**a-** It is a polypeptide antibiotic
**b-** Derived from *Bacillus subtilis*
**c-** Block cell wall formation
**d-** It is broad-spectrum antibiotic

19- Define Trichomoniasis, the causative agent, drug of choice and the side effects of the drugs.
20- What are the common adverse effects of anthelmintic drugs?
21- **Which antiretroviral drug belongs to the HIV protease inhibitor class?**
A. Atazanavir
B. dolutegravir
C. Abacavir
D. Doravirine

22- Why are laxatives administered as adjunct medication in treating parasitic worm infestations?
23- Name a drug inhibits the fungal nucleic acid, how it administrated, it is mechanism of action and why human cells not affected by this drug?

24- What are the main uses, adverse effects, and drug interactions associated with the aminoglycosides?

25- List some of the drugs used in the treatment of tuberculosis (TB).