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**SARDAR PATEL UNIVERSITY****M. Sc. Pharmaceutical Chemistry, Second Semester Examination****Wednesday, 11<sup>th</sup> April****2018****10.00 a.m. to 1.00 p.m.****Medicinal Chemistry - : PS02CPCH22****Total Marks : 70****Note :** (i) All questions are to be attempted. (ii) Figures to the right indicate marks.**Q.1 Choose the correct option for the following : 8x1=08**

- (i) Tetracyclins are used to cure ..... infection.  
 (a) Bacterial (b) Fungal (c) both 'a' & 'b' (d) Viral
- (ii) Ampicillin is an example of ..... class.  
 (a) Penicillin (b) Cephalosporin (c) Macrolid (d) Quinolon
- (iii) Methotrexate belongs to ..... class of drug.  
 (a) Anticancer (b) Sulphonamide (c) Antiviral (d) Anti fungal
- (iv) Identify the pathogenic mycobacterium from the following.  
 (a) M. smegmatis (b) M. tuberculosis (c) M. Phlei (d) M. Stercors
- (v) Depsone is an example of ..... drug.  
 (a) First line (b) Second line (c) both 'a' & 'b' (d) None
- (vi) Tuberculosis is caused by .....  
 (a) Mycobacteria (b) Cocci bacteria (c) both 'a' & 'b' (d) None
- (vii) Azoles are used for ..... disease.  
 (a) Dermatophytoses (b) Aspergiosis (c) Histoplasmosi (d) Pneumocytosis
- (viii) Which is DNA virus from the following ?  
 (a) Herpes virus (b) Pox virus (c) Adeno virus (d) All

**Q.2 Answer the following : (Attempt any seven) 7x2=14**

- (i) Draw the structure of any two antibiotics and write adverse effect of it.
- (ii) Distinguish between gram positive and gram negative bacteria.
- (iii) Define sulphonamides. Classify them according to chemical structure.
- (iv) Write synthesis of Thiotepa drug.
- (v) Which organism is responsible for malaria?
- (vi) Distinguish between benign and malignant tumor.
- (vii) What is Tuberculin test?
- (viii) Explain the mode of action of Ketoconazol drug.
- (ix) Enlist the name of two DNA and RNA viruses with diseases caused by them.

**Q.3**

- A. Define chemotherapeutic agents. Classify it according to mode of action giving suitable illustration. **06**
- B. Discuss in details about structure- activity relation for Tetracycline class of drug. **06**

**OR**

- B Write synthesis, uses and mode of action of methicilin and amoxycilline. **06**

**Q.4**

- A. Define anti neoplastic agents. Write the synthesis of Sulphanilamide and **06**

C.P. T. O.)

sulphadiazine  
B. Discuss in detail about cell cycle by schematic diagram. Write types, causes and treatment of cancer. 06

OR

B. Write the synthesis and uses of following: 06  
(a) Melphalan                      (b) 6-mercaptopurine

**Q.5**

A. Describe the life cycle of plasmodium and write synthesis of Chloroquine. 06

B. Write the synthesis and mode of action for: Isoniazide and salicylic acid. 06

OR

B. Discuss in detail about various class of antituberculosis agents. Also write major treatment of tuberculosis. 06

**Q.6**

A. Enumerate the various fungal diseases and mention the drugs used against those diseases. 06

B. Write structure and function of Nystatin drug. 06

OR

B. Discuss in detail about life cycle of virus. 06

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