

**SARDAR PATEL UNIVERSITY**  
**M. Sc. Pharmaceutical Chemistry (Semester-IV) Examination**  
**Tuesday, 26/03/2019; Time-2:00 PM to 5:00 PM**  
**SUBJECT CODE: PS04EPCH21**  
**SUBJECT TITLE: Advances in Pharmaceutical Chemistry**

**Maximum 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) Combinatorial synthesis is also known as:  
 (a) Parallel (b) Branched (c) Both (d) None
- (ii) Molecular unit covalently attached to the polymer chain making up the solid support is known as:  
 (a) Anchor/linker (b) Adhesive (c) Both (d) None
- (iii) Stereoisomers that are not mirror images of each other?  
 (a) Diastereomers (b) Mesomer (c) Enantiomer (d) None
- (iv) Enantiomers are also known as.  
 (a) Structural (b) optical isomer (c) Cis-trans (d) None
- (v) The enzyme capable of catalysing the hydrolysis of L-asparagine, yielding aspartic acid and ammonia is:  
 (a) Protinase (b) Asparaginase (c) galactosidases (d) None
- (vi) For therapeutic use the whole blood is withdrawn;  
 (a) Aseptically from human (b) From human and bovine (c) Animal's blood can be used (d) None
- (vii) Tenofovir is used for the treatment of \_\_\_\_\_.  
 (a) Alzheimer's disease (b) Parkinson (c) HIV (d) Fever
- (viii) IFNs belongs to the class of proteins known as \_\_\_\_\_.  
 (a) Cytokins (b) anti inflammatory (c) Hypertensive (d) cryogenic

**Q.2 Answer the following : (attempt any Seven)**

**7x2=14**

1. Describe the term tagging
2. Explain Fmoc/t-Bu strategy
3. What is chirality?
4. Define asymmetric synthesis.
5. What are the major aims of generating engineered insulin analogues?
6. Describe the inhibition of INTERLEUKIN-2 (IL-2).
7. Define Haemostasis.
8. What is somatostatin?
9. What happens if patients have too much relaxin?

(1)

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- Q.3**
- A. Elaborate the The mix and split method in combinatorial synthesis 06
  - B. Write a note on Parallel synthesis. 06
- OR**
- B. Give the Dynamic combinatorial Synthesis with suitable example. 06
- Q.4**
- A. What is the importance of chirality in drug development? 06
  - B. Discuss asymmetric synthesis. 06
- OR**
- B. Write the asymmetric synthesis of Dilitazem. 06
- Q.5**
- A. Elaborate Human growth hormone (hGH) and also give the biological effect and therapeutic use of GH. 06
  - B. Write a note on Interferon. 06
- OR**
- B. Write a note on Anticoagulants. 06
- Q.6**
- A. Write explanatory note on AIDS 06
  - B. What is insulin? Explain in details about the types of insulin. 06
- OR**
- B. Write types, mode of action and uses of DNase. 06

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