

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 154851

Roll No.

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B.Tech.

(SEM. VIII) THEORY EXAMINATION 2013-14

BIOTECHNOLOGY IN HEALTH CARE

Time : 3 Hours

Total Marks : 100

Note : Attempt all questions as directed. All questions carry equal marks.

1. Write short notes on any **four** of the following :

- (a) Cell mediated immunity
- (b) Role of endogenous peptides in immunity
- (c) Immunogenicity
- (d) Antibodies
- (e) Epitopes
- (f) Recombinant Vaccines

2. Attempt any **two** of the following :

- (a) What is gene therapy ? Describe the methods of gene therapy and discuss their comparative advantages.
- (b) Write a note on antisense RNA technology. How can it be used to silent an oncogene. Describe any method with the help of suitable diagrams.
- (c) What are carbohydrate-based cancer vaccines ? Describe the concept behind them and mention their potential advantages.

3. Attempt any two of the following :
- (a) Describe the properties of radio-sensitizers. Mention their roles and discuss their importance.
 - (b) What do you understand by antithrombotics and hemostatics ? Discuss their importance.
 - (c) What is the role of endogenous vasoactive peptides ? How do they perform?
4. Write short notes on any four of the following :
- (a) Synthetic antibacterials
 - (b) Human chorionic gonadotropin and its analogs
 - (c) Immuno modulators
 - (d) Lactam antibiotics
 - (e) Mode of action of anthelmintic agents
 - (f) Drugs against viral diseases
5. Attempt any two of the following :
- (a) What is blood brain barrier ? What is its importance in selecting a drug against any disease ?
 - (b) Describe the process of targeted drug delivery. How does its effect differ from that of systemic drug delivery ?
 - (c) Write a note on advances in drug delivery systems.