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**B. TECH.**

**(SEM - VI) THEORY EXAMINATION 2017-18  
BIOTECHNOLOGY IN HEALTH CARE**

*Time: 3 Hours*

*Total Marks: 100*

**Note:** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

**1. Attempt *all* questions in brief.**

**2 x 10 = 20**

- (a) What do you understand by antibody?
- (b) Explain myocardial infarction in short.
- (c) Explain Liposome Based drug delivery
- (d) What is role of Blood Brain Barrier
- (e) What are therapeutic polysaccharides?
- (f) What are hematopoietic agents?
- (g) What are radiosprotective agents?
- (h) What is difference between active and passive immunity?
- (i) What is Recombinant Vaccine?
- (j) Explain therapeutic index.

**SECTION B**

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

**10 x 3 = 30**

- (a) What is cancer immunotherapy? Explain in detail.
- (b) What are antisense oligonucleotides? Discuss therapeutic application of oligonucleotides.
- (c) Discuss endocrine drugs in detail? Also explain application of the analogs of various hormones with suitable examples
- (d) What do you understand by cardiovascular drugs? Discuss various types of drugs used in the treatment of cardiac associated problems.
- (e) What is Endogenous peptide? Briefly describe modifications of endogenous peptides and proteins?

**SECTION C**

**3. Attempt any *one* part of the following:**

**10 x 1=10**

- (a) Define gene therapy? Briefly describe the various approaches for gene therapy and there advantages with their limitations.
- (b) Write an assay on organ specific drug targeting? Explain about targets and challenges in organ specific drug targeting.

**4. Attempt any *one* part of the following:**

**10 x 1=10**

- (a) Discuss therapeutic application of oligosaccharides? Why glycoprotein is used in as therapeutic agent?
- (b) Discuss various strategies used brain specific drug delivery? Discuss various problems associated with brain associated drug delivery?

**5. Attempt any *one* part of the following: 10 x 1=10**

- (a) Discuss about anticoagulants in detail with suitable example?
- (b) Explain about cell specific drug delivery in detail.

**6. Attempt any *one* part of the following: 10 x 1=10**

- (a) Discuss in detail about agents which affect immune response? Write complication associated with Immune - compromised patients.
- (b) Explain polysaccharides bacterial vaccine in detail?

**7. Attempt any *one* part of the following: 10 x 1 =10**

- (a) What do you understand antiamebic and antiviral agents? Discuss with suitable example?
- (b) What are approaches used for carbohydrate based cancer vaccine in detail?