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HDU-02011247

Seat No. _____

M. Pharm. (Sem. III) (External) Examination

November / December – 2017

Recombinant DNA Technology & Gene Therapy

Time : **3** Hours] [Total Marks : **80**

Instructions : (1) Answer and tie up both the sections separately.
(2) Figures to the right indicates marks.
(3) Answer the three (03) questions from each section.
(4) Question one (1) and question five (5) are compulsory.
(5) Draw neat and clean diagrams as required.

SECTION - I

1 Write a note on following : (Any seven out of ten) **2×7=14**

(a) DNAse
(b) Diethyl pyrocarbonate
(c) dNTPs
(d) r-DNA technology
(e) Polyadenylation
(f) Intercalating dye
(g) A260/A280 Ratio
(h) Restriction enzymes
(i) Cloning Vector
(j) MCS

2 Answer the following :

(a) Explain plant transformation technique for virus resistance in detail. **7**

(b) Write a detailed note on PyroSequencing Technology. **6**

3 Answer the following :

(a) Write a detailed comparative note on all blotting techniques. **7**

(b) Explain Agrobacterium mediated plant transformation technique in detail. **6**

4 Answer the following :

(a) Write a detailed note on Cosmid Vector. **6**

(b) Write a detailed note on Baculo Virus expression system. **7**

SECTION - II

5 Answer any **two** out of three : **7×2=14**

(a) Write in detail about second generation molecules.

(b) Write a note on qualitative and quantitative determination of nucleic acid.

(c) Write down your opinion note on transgenic animals.

6 Answer the following :

(a) Explain gene therapy in detail with their applications. **7**

(b) Explain somatic cell gene transfer in detail with example. **6**

7 Answer the following :

(a) Enlist the factors effecting in fruit ripening. **7**

(b) Write a note on site specific gene alteration. **6**

8 Answer the following :

(a) Lac-Z gene mediated bacterial cloning with diagram. **7**

(b) Applications of Plant Biotechnology. **6**