

S. P. College , Chandrapur MODEL EXAM- 2018
Recombinant DNA Technology
Microbiology Sem VI Paper I

Time : 3 hrs

Max Marks : 50

Note : All questions are compulsory and carry equal marks.

- 1 Describe different manipulative enzymes used in cloning. **10**
OR
- 2 Discuss different methods of selection of clones. **10**
Discuss method of construction of cDNA library and genomic library in detail. **10**
OR
- 3 Describe hybridoma technology. Give its application. **10**
- a Give characteristics of E. coli as a cloning vectors. **2 1/2**
b Write short note on homopolymer tailing. **2 1/2**
c Give applications of PCR. **2 1/2**
d Write short note on gene therapy. **2 1/2**
OR
- e Write short note on YAC. **2 1/2**
f Describe Electroporation technique for transfer of rDNA. **2 1/2**
g Give Sanger's method of DNA sequencing. **2 1/2**
h What are interferon? Give its application. **2 1/2**
- 4
- a Explain shot gun method of gene isolation. **2 1/2**
b Describe in short colony hybridization technique. **2 1/2**
c Write short note on human genome project. **2 1/2**
d Explain with example Human Growth hormone. **2 1/2**
OR
- e Write short note on pBR322 vector. **2 1/2**
f Give the biolistic method of rDNA transfer into suitable host. **2 1/2**
g Give an account on DNA finger-printing. **2 1/2**
h Write short note on genetically modified food. **2 1/2**
- 5 **Answer any 10**
- a Give two selection markers present in pBR322 vector. **1**
b Give two characteristics of ideal host. **1**
c Name any two λ phage cloning vector. **1**
d Give examples of eukaryotic cloning host.. **1**
e Give the role of microinjection for transfer of rDNA. **1**
f What are linkers and adaptors? **1**
g What is DNA amplification? **1**
h What is genomic DNA? **1**
i Define gene. **1**
j What are vaccines? Give examples. **1**
k Give applications of stem cells. **1**
l What is HAT medium? **1**

-----ALL THE BEST-----