



# **BIOLOGY**

**BOOKS - UNIVERSAL BOOK DEPOT**

**1960 BIOLOGY (HINGLISH)**

**BIOTEHNOLOGY : PRINCIPALES AND  
PROCESSES**

**Biotechnology Principales And Processes**

1. The linking of antibiotic resistance gene with the plasmid vector became possible with

A. DNA polymerase

B. Exonucleases

C. DNA ligase

D. Endonucleases

**Answer: C**



**Watch Video Solution**

2. Main objective of production of herbicide resistant GM crops is to

A. Encourage eco-friendly herbicides

B. Reduce herbicide accumulation in food articles for healthy safty

C. eliminate weeds from the field without the use of manual labour

D. Eliminate weeds from the field without the use of herbicides

**Answer: b**



Watch Video Solution

3. Which of these is used as vector in gene therapy for SCID

A. Arbovirus

B. Rotavirus

C. Enterovirus

D. Paravovirus

**Answer: c**





4. Which of the following has the ability to transform normal cell into cancerous cell in animal

A. Arbovirus

B. Rotavirus

C. Enterovirus

D. Retrovirus

**Answer: c**



Watch Video Solution

5. Which one among the following is just a cloning plasmid not an expression plasmid

A. pBAD-18-Cam

B. P BCSK

C. pUC18

D. pET

**Answer: c**



Watch Video Solution

6. Branch dealing with genetic engineering is

A. Genetic engineering

B. Euthenics

C. Euphenics

D. None of these

**Answer: c**



**Watch Video Solution**

7. Genetic engineering means:

A. Manipulation of cell contents

B. Test tube babies

C. Manipulation of cytochromes

D. Manipulation (modification) of genes

**Answer: d**



**Watch Video Solution**

8. Who among the following scientists is associated with the discoveries in genetic engineering

A. Khorana

B. Watson

C. Crick

D. Messleson

**Answer: a**



**Watch Video Solution**

9. It is now possible to breed plants and animals with desired characters through

- A. Genetic engineering
- B. Chromosome engineering
- C. Ikebana technique
- D. tissue culture

**Answer: a**



**Watch Video Solution**

10. Which of the following organelles is related with genetic engineering/gene cloning

A. Golgi apparatus

B. Lysosomes

C. Mitochondria

D. Plasmids

**Answer: d**



**Watch Video Solution**

**11.** In genetic engineering, a DNA segment (gene) of interest, is translated to the host cell through a vector. Consider the following four agents (A-D) in this regard and select the correct option about which one or more of these can be used as a vector/vectors

Statement

(A) A bacterium (B) Plasmid

(C) Plasmodium (D) Bacteriophage

A. (A),(B) and (D) Only

B. (A) only



C. (A) and (C) only

D. (B) and (C) only

**Answer: d**



**Watch Video Solution**

**12.** Recombinant DNA (rDNA) technology is related with

A. C.darwin

B. Stanley Cohen

C. Herbert Boyer

D. Both (b) and (c)

**Answer: D**



**Watch Video Solution**

**13.** A desirable change in genotype of an organism is obtained by

A. DNA replication

B. Protein synthesis

C. rDNA technology

D. mRNA formation

**Answer: C**



**Watch Video Solution**

**14.** Which of these is widely used in genetic engineering

A. Anopheles

B. Dragon fly

C. Dragon lizard

D. Fruit fly

**Answer: d**



**Watch Video Solution**

**15. Identify the plasmid**

A. AIU I

B. Hind III

C. Eco RI

D. pBr 322

**Answer: d**



**Watch Video Solution**

**16.** In recombination vector used is

A. Protein

B. *Agrobacterium tumefaciens*

C. Nucleic acid

D. Cellulose

**Answer: b**



**Watch Video Solution**

**17.** First biochemical to be produced commercially by microbial cloning and genetic engineering is

- A. Human insulin
- B. Penicillin
- C. Interferons
- D. Fertility factors

**Answer: A**



**Watch Video Solution**

**18.** Which of the following option is correct for recombinant DNA technology

A. Exonuclease enzyme removes nucleotides from site within DNA

B. Endonuclease enzyme removes nucleotides from the ends of DNA

C. Endonuclease enzymes cut long

polandric DNA stand

D. Exonuclease enzymes removes

nucleotides from ends of DNA

**Answer: d**



**Watch Video Solution**

**19.** Restriction endonucleases are most widely used in recombinant DNA technology. They are obtained from



A. Bacteriophages

B. Bacterial cells

C. Plasmids

D. All prokaryotic cells

**Answer: b**



**Watch Video Solution**

**20.** In recombinant DNA technology, the term vector refers to

- A. Plasmids that can transfer foreign DNA  
into a living cell
- B. Cosmids that can cut DNA at specific  
base sequences
- C. Plasmids that can join different DNA  
fragments
- D. Cosmids that can degrade harmful  
proteins

**Answer: A**



**Watch Video Solution**

21. An analysis of chromosomal DNA using the southern hybridization technique does not use

A. Autoradiography

B. PCR

C. Electrophoresis

D. Blotting

**Answer: a**



**Watch Video Solution**

22. Genetic engineering has been successfully used for producing

A. Animals like bulls for farm work as they have super power

B. Transgenic mice for testing safety of polio vaccine before use in humans

C. Transgenic models for studying new treatments for certain cardiac diseases

D. Transgenic Cow-Rosie which produces high fat milk for making ghee

**Answer: b**



**Watch Video Solution**

**23.** The gene 'rop' present in pBR322 cloning vector, codes for

A. Original bacterial plasmid

B. Modified bacterial plasmid

C. Viral genome

D. Transposon

**Answer: b**



**Watch Video Solution**

**24.** Which one of the following techniques made it possible to genetically engineer living organisms ?

A. Heavier isotope labeling

B. Hybridization

C. Recombinant DNA techniques

D. X-ray diffraction

**Answer: c**



**Watch Video Solution**

**25.** Which one of the following technique made it possible to genetically engineering living organisms

A. Heavier isotope labeling

B. Hybridization

C. Recombinant DNA techniques

D. X-ray diffraction

**Answer: c**



**Watch Video Solution**

**26.** Following enzymes /techniques are used in the process of recombinant DNA technology

A. Eco RI to cut the isolated genome



B. DNA ligase

C. Protease and ribonuclease for removal of proteins and RNA from DNA

D. Production of recombination hosts

E. lysozyme for isolation of the genetic material (DNA)

F. gel electrophoresis for separation and isolation of DNA fragments

Mark the correct sequence of their use.

A. Restriction endonucleases and topoisomerases

B. Endonucleases and polymerases

C. Restriction endonucleases and ligases

D. Peptidases and ligases

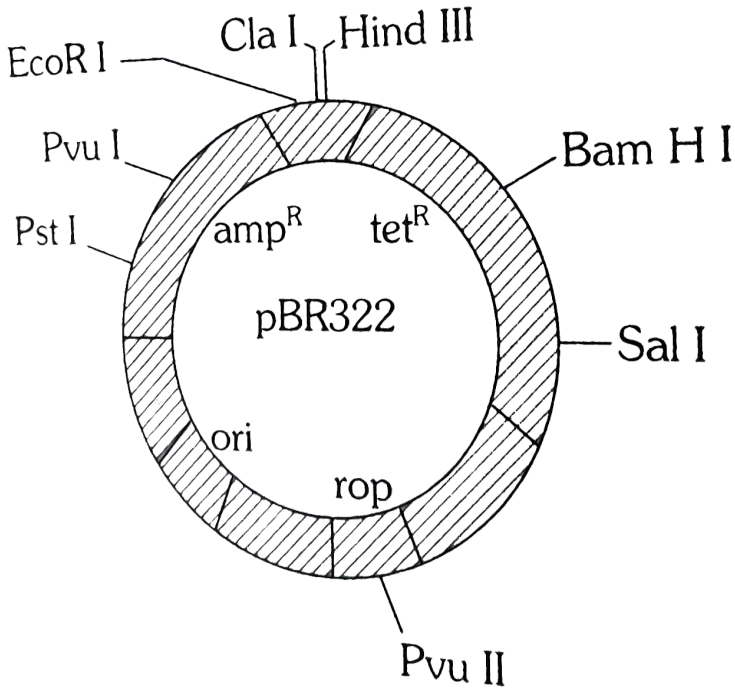
**Answer: d**



**Watch Video Solution**

**27.** The figure below is the diagrammatic representation of the E.coli vector pBR322. which one of the given options correctly

identifies its certain component (s)



A. Ori-original restriction enzymes

B. Ro-reduced osmotic pressure

C. Hind III, EcoRI -Selectable markers

D.  $amp^R$ ,  $tet^R$  -antibiotic resistance genes

**Answer: D**



**Watch Video Solution**

**28.** PCR and restriction Fragments length

Polymorphism are the methods for

- A. Study of enzymes
- B. Genetic transformation
- C. DNA sequencing
- D. Genetic -Fingerprinting

**Answer: d**



**Watch Video Solution**

**29.** Fearing that the child to be born may have a genetic disorder, a couple goes to a doctor. Which one of the following techniques is likely to be suggested by the doctor to cure the genetic disorder ?

A. Hybridoma technology

B. Gene therapy

C. rDNA technology

D. Embryo transfer

**Answer: b**



**Watch Video Solution**

**30.** What is the permanent cure of adenosine deaminase (ADA) deficiency in children ?

A. Hybridoma technology

B. Gene therapy

C. rDNA technology

D. Embryo transfer

**Answer: b**



**Watch Video Solution**

**31.** In genetic engineering, the antibiotics are used

A. As selectable markers

B. To select healthy vectors

C. As sequences from where replication starts

D. To keep the cultures free of infection

**Answer: a**



**Watch Video Solution**

**32.** The colonies of recombinant bacteria appear white in because of



A. Inactivation of glycosidase enzyme in recombinant bacteria

B. Non-recombinant bacteria containing beta -galactosidase

C. Insertional inactivation of alpha-galactosidase in non-recombinant bacteria

D. Insertional inactivation of alpha-galactosidase in recombinant bacteria

**Answer: c**



Watch Video Solution

**33.** Precipitates of purified DNA after the addition of chilled ethanol are seen as a collection of the fine threads in suspension.

This process is referred as



- A. Precipitate DNA
- B. Break open the cell to release DNA
- C. Facilitate action of restriction enzymes

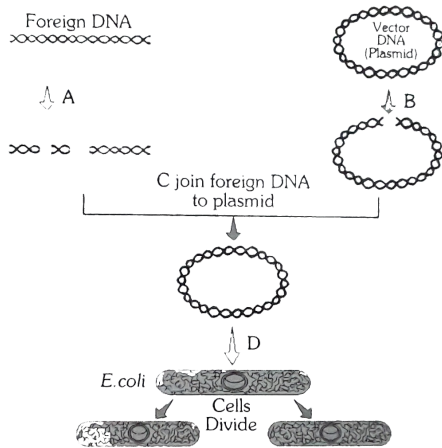
D. Remove proteins such histones

**Answer: a**



**Watch Video Solution**

**34.** The below figure refers to recombinant DNA technology identify A,B,C,D respectively



	A	B	C	D
(a)	Restriction Endonuclease	Restriction Endonuclease	DNA ligase	Transformation
(b)	Exonuclease	Endonuclease	Hydrolase	Transduction
(c)	Endonuclease	Exonuclease	DNA ligase	Transformation
(d)	Exonuclease	Endonuclease	DNA ligase	Transformation



**Watch Video Solution**

**35.** When the chilled ethanol is added in purified DNA, it ultimately precipitates out.

The can be show in the figure as collection of

fine threads in the suspension. This process is known as



- A. DNA bands
- B. DNA recognition
- C. DNA digestion
- D. DNA spooling

**Answer: d**





Watch Video Solution

36. Which of the following is not a feature of the plasmids

A. Independent replication

B. Circular structure

C. Transferable

D. Single-standed

**Answer: d**



Watch Video Solution

37. Which of the following is a restriction endonuclease

A. Hind II

B. protease

C. Dnase I

D. Rnase

**Answer: d**



**Watch Video Solution**

**38.** Which of the following restriction enzymes produces blunt ends

A. Hind III

B. Sal I

C. Eco RV

D. Xho I

**Answer: c**



**Watch Video Solution**



**39.** A gene whose expression helps to indentify transformed cell is known as

A. Selectable marker

B. Vector

C. Plasmid

D. Structural gene

**Answer: a**



**Watch Video Solution**

**40.** The correct order of steps in Polymerase Chain Reaction (PCR) is

- A. Extension, Denaturation, Annealing
- B. Annealing , Extension, Denaturation
- C. Denaturation, Extension, Annealing
- D. Denaturation, Annealing, Extension

**Answer: D**



**Watch Video Solution**

**41.** The correct order of steps in polymerase chain Reaction (PCR) is

- A. Extension, Denaturation, Annealing
- B. Annealing , Extension, Denaturation
- C. Denaturation, Extension, Annealing
- D. Denaturation, Annealing, Extension

**Answer: D**



**Watch Video Solution**

42. Rising of dough is due is

A. Multiplication of yeast

B. Production of  $CO_2$

C. Emulsification

D. Hydrolysis of wheat flour starch into  
sugars

**Answer: b**



**Watch Video Solution**

**43.** An enzyme catalysing the removal of nucleotides from the ends of DNA is

A. Endonuclease

B. Exonuclease

C. DNA ligase

D. Hind-II

**Answer: b**



**Watch Video Solution**

**44.** The transfer of genetic material from one bacterium to another through the mediation of a vector like virus is termed as

- A. Transduction
- B. Conjugation
- C. Transformation
- D. Translation

**Answer: a**



**Watch Video Solution**

**45.** Which of the given statements is correct in the context of observing DNA separated by agarose gel electrophoresis ?

A. DNA can be seen in visible light

B. DNA can be seen without staining in visible light

C. Ethidium bromide stained DNA can be seen in visible light

D. Ethidium bromide stained DNA can be seen under exposure to UV light

**Answer: d**



**Watch Video Solution**

**46.** Restriction' in restriction enzyme refers to

A. Cleaving of phsphodiester bond in DNA

by the enzyme

B. Cuttig of DNA at specific position only

C. Prevention of the multiplication of

bacteriophage by the host bacteria



D. All of the above

**Answer: C**



**Watch Video Solution**

**47.** Which of the following is not required in the preparation of a recombinant DNA molecule ?

A. Restriction endonuclease

B. DNA ligase

C. DNA fragments

D. E coil

**Answer: d**



**Watch Video Solution**

**48.** Which of the following statements does not hold true for restriction enzyme ?

A. it recognize a palindromic nucleotide  
sequence

B. it is an endonuclease

C. it is isolated isolated from viruses

D. It can produce the same kind of sticky  
ends in different DNA molecules

**Answer: c**



**Watch Video Solution**

**49.** The most important feature in a plasmid to  
be used as a vector is

A. Origin of replication (ori)

B. presence of a selectable marker

C. Presence of sites for restriction  
endonuclease

D. its size

**Answer: a**



**Watch Video Solution**

50. While isolating DNA from bacteria, which of the following enzymes is not used ?

A. Lysozyme

B. Ribonuclease

C. Deoxyribonuclease

D. Protease

**Answer: C**



**Watch Video Solution**

51. Which of the following has popularised the PCR (polymerase chain reactions)?

A. Easy availability of DNA template

B. Availability of synthetic primers

C. Availability of cheap deoxyribonucleotides

D. Availability of 'Thermostable' DNA polymerase

**Answer: d**



**Watch Video Solution**

52. An antibiotic resistance gene in a vector usually helps in the selection of

- A. Competent bacterial cells
- B. Transformed bacterial cells
- C. Recombinant bacterial cells
- D. None of the above

**Answer: b**



**Watch Video Solution**

**53.** Significance of 'heat shock' method in bacterial transformation is to facilitate

A. Binding of DNA to the cell wall

B. uptake of DNA through membrane transport proteins

C. Uptake of DNA through transient pores in the bacterial cell wall

D. Expression of antibiotic resistance gene

**Answer: c**





Watch Video Solution

**54.** The role of DNA ligase in the construction of a recombinant DNA molecule is

- A. Formation of phosphodiester bond between two DNA fragments
- B. Formation of hydrogen bonds between sticky ends of DNA fragments
- C. Ligation of all purine and pyrimidine bases

D. None of the above

**Answer: a**



**Watch Video Solution**

**55.** Which of the following is not a source of restriction endonuclease ?

A. Haemophilus influenzae

B. Escherichia coli

C. Entamoeba coli

D. *Bacillus amyloliquefaciens*

**Answer: c**



**Watch Video Solution**

**56.** Which of the following steps are catalysed by Taq polymerase in a PCR reaction ?

A. Denaturation of template DNA

B. Annealing of primers to template DNA

C. Extension of primer end of the template

DNA

D. All of the above

**Answer: c**



**Watch Video Solution**

**57.** A bacterial cell was transformed with a recombinant DNA that was generated using a human gene. However, the transformed cells

did not produce the desired protein. Reason could be

A. Human gene may have intron which bacteria cannot process

B. Amino acid codons for humans and bacteria are different

C. Human protein is formed but degraded by bacteria

D. All of the above

**Answer: a**



Watch Video Solution

**58.** Which of the following should be chosen for best yield if one were to produce a recombinant protein in large amounts ?

- A. Laboratory flask of largest capacity
- B. A stirred -tank bioreactor without in -lets  
and out -lets
- C. A continuous culture system
- D. Any of the above

**Answer: c**



**Watch Video Solution**

**59.** Who among the following was awarded the Nobel Prize for the development of PCR technique ?

- A. Herbert Boyer
- B. Hargovind Khurana
- C. Kary mullis
- D. Arthur kornberg

**Answer: c**



**Watch Video Solution**

**60.** During DNA purification, which enzymes is used to treat the plant cell

A. Ribonuclease

B. Cellulase

C. Chitinase

D. Ligase



**Answer: b**



**Watch Video Solution**

**61. The stirred-tank reactor is usually**

- A. Cylindrical
- B. Rounded
- C. Cup-Shaped
- D. Flattened

**Answer: A**



**Watch Video Solution**

**62.** A bioreactors refers to

- A. A device in which substances are treated to stimulate biochemical transformation by living cells
- B. A nuclear reactor for biological studies
- C. A tank for biochemical reactions
- D. Organisms badly reacting to stimuli

**Answer: A**



**Watch Video Solution**

**63. Chimeric DNA is**

- A. A part of recombinant DNA
- B. In fact passenger DNA
- C. Recombinant DNA formed by combining  
vector DNA and passenger DNA

D. Residual DNA that has no role in genetic engineering

**Answer: c**



**Watch Video Solution**

**64.** Which one of the following correctly explains the term 'Chimera'

A. Spontaneously induced deletions

B. Breaking a part of chromosome segment

during mutation

C. Development of genetically diverse

tissues in the same organism

D. During mutation at segregation,

chromosome become equally distributed

**Answer: c**



**Watch Video Solution**

**65.** Why is recombinant DNA (rDNA) technology called genetic engineering

A. It involves sophisticated technology at microscopic level

B. Knowledge of engineering of two DNAs

C. It involves manipulation degree in engineering

D. It includes an authorized degree in engineering

**Answer: c**



**Watch Video Solution**

**66.** In rDNA technology in order to make the bacterial host cells 'competent' to accept the rDNA, these are kept in

- A. Dilute solution of CsCl
- B. Divalent anions such as phosphates
- C. Chilled ethanol
- D. Divalent cations such as calcium

**Answer: D**



**Watch Video Solution**

**67.** Which of the given statements is correct in the context of observing DNA separated by agarose gel electrophoresis ?

A. DNA can be seen in visible light

B. DNA can be seen without staining in visible light



C. Ethidium bromide stained DNA can be seen in visible light

D. Ethidium bromide stained DNA can be seen under exposure to UV light

**Answer: d**



**Watch Video Solution**

**68.** Recombinant DNA is force to enter the host cells by incubating the cells with rDNA first

A. On ice followed by heat shock and then again on ice

B. At low temperature followed by heat shock and then on ice

C. In ethidium bromide followed by calcium salts

D. Into chilled ethanol followed by ice and then into CsCl

**Answer: a**



**Watch Video Solution**

**69.** The desired product of rDNA technology produced through bioreactors on large scale undergoes

A. Elution

B. Enzymatic action

C. Biomonitoring

D. Downstream processing

**Answer: d**



**Watch Video Solution**

70. The cloning vectors M13 has genetic material

A. ssRNA

B. dsRNA

C. ssDNA

D. dsDNA

**Answer: c**



**Watch Video Solution**

71. Match column I and column II and select the right option given below

Column I		Column II	
I.	Recombinant DNA technology	A.	Vector
II.	Cloning Vehicles	B.	Sealing enzyme
III.	Macromolecular Separation	C.	Electrophoresis
IV.	DNA Ligase	D.	Genetic engineering

A. I-D,II-A,III-B,IV-C

B. I-A,II-D,III-B,IV-C

C. I-D,II-A,III-C,IV-B

D. I-B,II-A,III-D,IV-C

**Answer: c**



Watch Video Solution

72. The function of a selectable marker is

- A. Eliminating transformation and permitting non-transformants
- B. Identify ori site
- C. Elimination of non-transformants and permitting transformants
- D. To destroy recognition sites

**Answer: C**



**View Text Solution**

**73.** Which of the following is/are used in recombinant DNA technology

A. Agarose gel (B). Ethidium bromide

(C) . Plasmid vector (D) Restriction endonuclease

A. A,B

B. B,C

C. C,D

D. A,B,C,D

**Answer: d**



**Watch Video Solution**

**74.** DNA recombinant technology uses

A . Restiction endonucleases B. DNA ligase

C. Cloning vector D. Electrophoresis

A. A,B



B. B,C

C. C,D

D. A,B,C,D

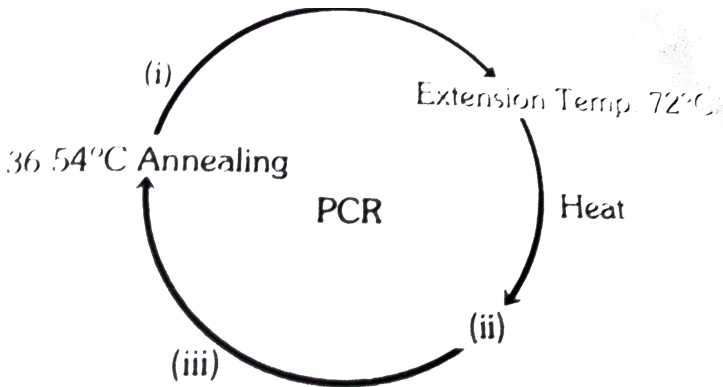
**Answer: d**



**Watch Video Solution**

**75.** The following cycle refer to the PCR prcess,  
name the factors or steps indicated with

numbers



A. (i) Taq polumerase (ii) Extension (iii)

Ligation

B. (i) Primer (ii) Denaturation at  $94^{\circ}C$  (iii)

Taq polymerase

C. (i) Denaturation at  $94^{\circ}C$  (ii) Taq

polymerase (iii) Primer

D. (i) Denaturation at  $94^{\circ}C$  (ii) Taq

polymerase (iii) Primer

**Answer: d**



**Watch Video Solution**

**76.** Observe the figure and select the correct option out of (a-d)

	<b>A DNA</b>	<b>B DNA</b>	<b>Enzyme recognizing palindrome</b>	<b>Enzyme joining the sticky ends</b>
(a)	Vector	Foreign	DNA ligase	Exonuclease
(b)	Vector	Foreign	Exonuclease	DNA ligase
(c)	Vector	Foreign	EcoRI	DNA ligase
(d)	Vector	Foreign	DNA ligase	EcoRI



[Watch Video Solution](#)

77. Genetically engineered bacteria are being employed for production of

A. Thyroxin

B. Progesterone

C. Insulin

D. Estrogen

**Answer: c**



[Watch Video Solution](#)

**78.** The first human hormone drug produced by recombinant DNA technology genetic engineering is

- A. Thyroxin
- B. Progesterone
- C. Insulin
- D. Estrogen

**Answer: C**



**Watch Video Solution**

79. Which vector can clone only a small fragment of DNA

A. Plasmid

B. Cosmid

C. Bacterial artificial chromosomes

D. Yeast artificial chromosomes

**Answer: a**



**Watch Video Solution**

**80.** Which of the following is not a component of downstream processing

A. Expression

B. Separation

C. Purification

D. Preservation

**Answer: A**



**Watch Video Solution**

**81.** The process of separation and purification of expressed protein before marketing is called

- A. Upstream processing
- B. Downstream processing
- C. Bioprocessing
- D. Postproduction processing

**Answer: b**



**Watch Video Solution**



**82.** Assertion : in recombinant DNA technology, human genes are often transferred into bacteria (prokaryotes) or yeast (eukaryote).

Reason: Both bacteria and yeast multiply very fast to form huge population which express the desired gene.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true  
but the reason is not a correct  
explanation of the assertion

C. IF the assertion is true but the reason is  
false

D. If both the assertion and reason are  
false

**Answer: a**



**Watch Video Solution**

**83.** Assertion : Plasmids are extrachromosomal DNA.

Plasmids are found in bacteria and are useful in genetic engineering

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. IF the assertion is true but the reason is  
false

D. If both the assertion and reason are  
false

**Answer: a**



**Watch Video Solution**

**84.** Assertion : Plasmids are single stranded  
extra chromosomal DNA.

Reason: Plasmids are found in Eukaryotic cells.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. IF the assertion is true but the reason is false

D. If both the assertion and reason are false

**Answer: d**



**Watch Video Solution**

**85.** Assertion : Recognition site should be perfectly single and responsive to commonly used restriction enzymes.

Reason: In pNR 322 Alien DNA is ligated generally in the area of Bam-HI site of tetracycline resistance gene.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

**Answer: B**



**Watch Video Solution**

**86.** Assertion: A gene from bacillus thuringiensis is incorporated in plant genome to increases yeild.

Reason : it is Bt toxin producing genw which kills larvae of insects.

A. If both the assertion and the reason are true and the reason is a correct



explanation of the assertion

B. If both the assertion and reason are true

but the reason is not a correct

explanation of the assertion

C. IF the assertion is true but the reason is

false

D. If both the assertion and reason are

false

**Answer: a**



**Watch Video Solution**

**87.** Which of the following tools of recombinant DNA technology is incorrectly paired with its use

A. Restriction enzyme-production of RFLPs

B. DNA ligase-enzyme that cuts DNA ,  
creating the sticky end of restriction  
fragments

C. DNA polymerase -used in a polymerase  
chain reaction to amplify sections of

DNA

D. Reverse transcriptase -production of c

DNA from mRNA

**Answer: b**



**Watch Video Solution**

**88.** In recombinant DNA technology, the term vector refers to

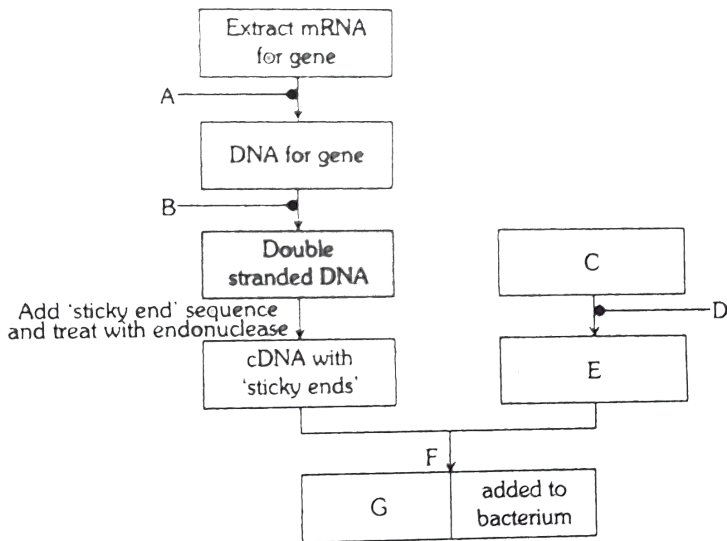
- A. The enzyme that cuts DNA into restriction fragments
- B. the sticky end of DNA fragments
- C. A plasmid used to transfer DNA into a living cell
- D. A DNA probe used to identify a particular gene

**Answer: c**



**Watch Video Solution**

**89.** Identify the labelled items A,B,C,D,E,F and G in the diagramme below from the list-I to VII given with



	A	B	C	D	E	F	G
(a)	VII	I	II	V	III	IV	VI
(b)	VII	VI	V	IV	III	II	I
(c)	VII	V	III	I	II	IV	VI
(d)	I	II	IV	VI	III	V	VII



**Watch Video Solution**

90. When a recombinant DNA is inserted within the coding sequencing of an enzymes,  $\beta$ -galactosidase

A. This result into inactivation of the enzyme

B. This is called insertional inactivation

C. in the presence of insertion, the colonies do not produce any colour

D. All of these

**Answer: D**



**Watch Video Solution**

**91.** If recombinant DNA is inserted within the coding sequence of enzyme galactosidase, which of the following will occur in case of non-recombinants

A. Insertional inactivation

B. Colonies do not produce any colour

C. Chromogenic substrate gives blue colour

D. Inactivation of enzyme galactosidase

**Answer: C**



**Watch Video Solution**

**92.** Following enzymes /techniques are used in the process of recombinant DNA technology

A. Eco RI to cut the isolated genome

B. DNA ligase



C. Protease and ribonuclease for removal of proteins and RNA from DNA

D. Production of recombination hosts

E. lysozyme for isolation of the genetic material (DNA)

F. gel electrophoresis for separation and isolation of DNA fragments

Mark the correct sequence of their use.

A. C,E,B,F,A,D

B. E,C,A,B,F,D

C. E,C,A,F,B,D

D. A,E,C,B,D,F

**Answer: c**



**Watch Video Solution**

**93. I.** Recombinant DNA technology is used to improve crop plants by increasing their productivity, by making them more nutritious and by developing disease resistant

**II** Bt cotton is resistance to bollworm infestation

III. *Bacillus thuringiensis* is not harmed by self cry protein because of its occurrence as protoxin (inactive)

V. Protoxin Cry protein is changed into active cry protein in the stomach of insects due to alkaline pH in stomach

A. All are correct

B. I and IV are correct

C. only III is false

D. All are false

**Answer: c**



Watch Video Solution

94. DNA polymerase enzyme is isolated from which bacteria

A. E.Coli

B. Thermus aquaticus

C. Bacillus thuringensis

D. Agro bacterium

**Answer: a**



**95.** Which of the following techniques serve the purpose of early diagnosis

I. r-DNA technology

II PCR

III ELISA

IV Conventional method of diagnosis (serum, urine analysis,etc)

A. I,II,III

B. IV only

C. III only

D. All

**Answer: a**



**Watch Video Solution**

**96.** The DNA molecule to which the gene of interest is integrated for cloning is called

A. Vector

B. Template

C. carrier

D. Transformer

**Answer: a**



**Watch Video Solution**

**97.** The application of microbial metabolism to transform simple raw materials into valuable products is

A. Bioactalysis

B. Genetic engineering

C. Tissue culture

D. Fermentation

**Answer: d**



**Watch Video Solution**

**98.** For rapid production of alcohol ,  
immobilised yeast calles are kept in

A. Silica gel



B. Wire netting

C. Porcelain columns

D. Calcium alginate beads

**Answer: d**



**Watch Video Solution**

**99.** What is the source of EcoRI

A. Escherichia coli RI

B. Escherichia coli RI 13

C. Escherichia coli 13

D. Escherichia Coli RY 13

**Answer: D**



**Watch Video Solution**