



BIOLOGY

BOOKS - JMD BIOLOGY (PUNJABI ENGLISH)

Biotechnology : Principle and process

Exercise

1. Introduction of genetically modified food is

not desirable because

A. It will affect economy of developing

countries

B. The products are less tasty

C. They are costly

D. There is danger of entry of toxins and

virus in foood.

Answer: D

2. Which generally engineered microbe was used for nitrogen fixation by incorporating nif gene in cereals

A. Rhizobium meliloti

B. Bacillus thuringiensis

C. Pseudomonas putidda

D. Pseudomonas flouorescence

Answer: A

3. Endonuclease is employed in

A. Transcription

B. Translation

C. Genetic engineering

D. DNA replication

Answer: C

4. Recombiant DNA or rDNA technology was

discovered by

A. Khorana

B. Bateson and de Vries

C. Sutton and Avery

D. Watson

Answer: B

5. In genetic engineering which is used for transfer of genes from one cell to another?

A. Vector

B. Probe

C. Plasmid

D. Virus

Answer: A

6. Identify the vector sutable for cloning lon DNA fragments.

A. Phage vector

B. Bacterial plasmid

C. Yeast plasmid

D. Cosmids

Answer: D

7. Introduction of foreign gene for improving

genotype is

A. Tissue culture

- B. Genetic engineering
- C. Biotechnology
- D. Vernalisation

Answer: B



8. The enzymes which are commonly used in

genetic engineering are

A. Restriction endonucleases and

polymerase

B. Endonuclease and ligase

C. Restriction endonucleases and ligase

D. Ligase and polymerase

Answer: C

9. Genetic engineering is

A. Making artificial genes

- B. Hybridisation of DNA
- C. Making artificial limbs and diagnostic

instruments

D. Production of alchol by using

microorganisms

Answer: B



10. DNA segment cleaved by EcoRI is

A. ATTCGA TAAGCT

B. GAATTC CTTAAG

C. GCTTAA CGAATT

D. GTTCAA CAAGTT

Answer: B

11. Extrachromosomal DNA used as vector in gene cloning is

A. Transposon

B. Intron

C. Exon

D. Plasmid

Answer: D

12. Restriction endonucleases are useful in

A. Breaking DNA at specific sites

B. Creating sticky ends

C. Both A and B

D. Crossing over

Answer: C

13. Plasmids are used as vectors in genetic engineering because of their

A. Resistance to antibiotics

B. Resistance to restriction enzymes

C. Ability to carry foreign genes

D. Ability to cause infection in host

Answer: C

14. The most extensively used bacteria in

genetic engineering is

A. Bacillus

B. Clostridium

C. Escericha

D. Salmonella

Answer: C

15. Restriction endonucleases used widely in

RDT are obtained from

A. Plasmids

B. Bacterial cells

C. Bacteriophages

D. All prokaryotic cells

Answer: B

16. DNA is generally methylated at

A. A-base

B. G-base

C. T-base

D. C-base

Answer: D

17. Which one is not a process of recombinant DNA technology ?

A. Isolation of genetic material

B. Chromatography

C. Cutting of DNA at specific location

D. Amplification of gene of interest using

PCR

Answer: B

18. Polymerase chain reaction is useful in

A. DNA synthesis

B. DNA amplification

C. Protein synthesis

D. Amino acid synthesis

Answer: B

19. Fragments of DNA formed after treatment with endonucleases are separeted by the technique

A. Polymerase chain reaction

B. Southern blotting

C. Colony hybridisation

D. Electrophoresis

Answer: D

20. In genetic engineering, DNA fragments are

joined through

A. Ligase

B. Polymerase

C. Helicase

D. Gyrase

Answer: A

21. Electroporation is

A. Making transient pores in cell membrane

to introduce gene constructs

B. Fast passage of nutrients through phloem sieve pores by electric stimulation

C. Opening of stomata by artificial light

during night

D. Purification of saline water with the help

of membrane system.





22. Gene library or DNA library has collection of

A. Packing of donor DNA in a collection of vectors

B. A collection of gene vectors

C. Collection of organism for extracting

DNA

D. A collection of literature about DNA.

Answer: A

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23. In gel electrophoresis, differential mobility

of DNA depends upon

A. Helical nature of DNA

B. Double stranded nature of DNA

C. Charge and size of DNA

D. Hydrogen bonding between bases.

Answer: C

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24. Two microbes found to be very useful in genetic engineering are

A. Escherichia coli and Agrobacterium

B. Vibrio	cholerae	and	а	tailed
bacteriophage				
C. Diplococus sp. and Pseudomonas sp.				
D. Crown	gall	bacterium		and
Caenorhabditis elegans				
Answer: A				
O Watch Video Solution				

25. When a process is elevated to large scale, the stage between laboratory scale and manufacuring unit is known as

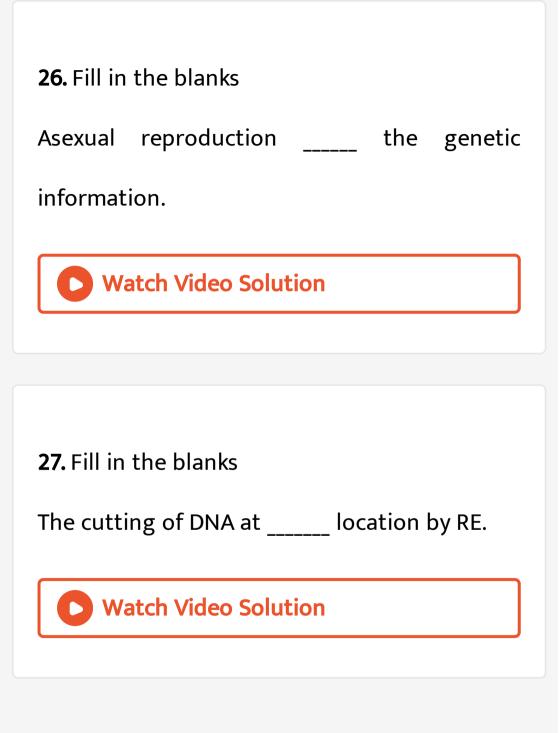
A. Bioeactor scale

B. Pilot plant scale

C. Support growth system

D. Suspended growth system

Answer: B



28. Fill in the blanks

identification of DNA with desirable gene is

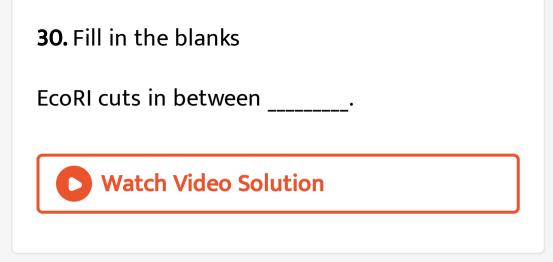


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29. Fill in the blanks

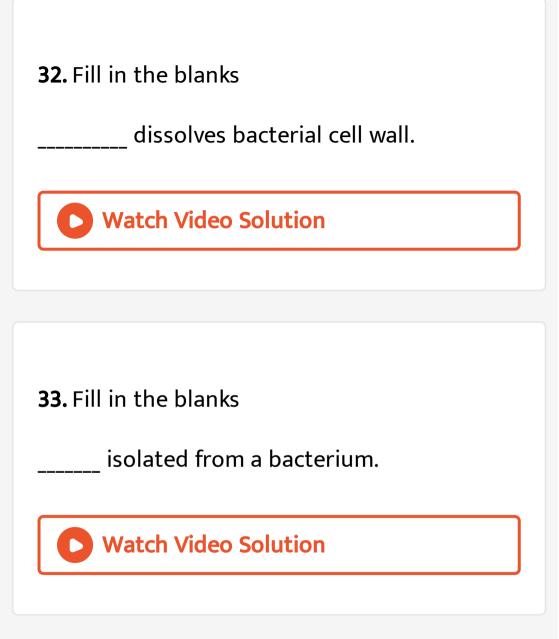
___removes nucleotides from the ends of

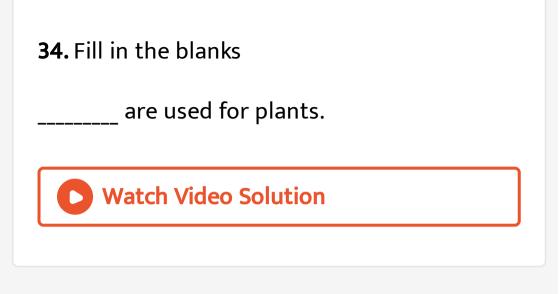
the DNA.



31. Fill in the blanks

Unpaired base pair of DNA end is called _____.





35. Fill in the blanks

Same RE is used for host as well as _____



Strict quality control testing for each product

is must.



37. True and False Type Questions

Thermolabile DNA polymerase is Taq

polymerase.

Lipase dissolved cell and nuclear membrane.



39. True and False Type Questions

Potassium is used for the transformation

ofrDNA in bacteria.

Retrovirusses in animals have the ability to

transform normal cell into caancerous cell.



41. True and False Type Questions

pBR322 is a natural cloning vector.



Blunt ends have paired base pair.

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43. True and False Type Questions

Arbar, 1963 discovered EcoRI from Bacillus coli.

Chromosomal DNA possesses vital genes.

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45. True and False Type Questions

Plasmid DNA act as vector.