

1. EFB stands for **[Pg-193,E]**
 - (A) English Federation of Biology
 - (B) European federation of Biology
 - (C) English Federation of Biotechnology
 - (D) European federation of Biotechnology Biosphere.

PARAGRAPH - 11.1 PRINCIPLES OF BIOTECHNOLOGY

2. Two core techniques that enabled birth of modern biotechnology are **[Pg-193,E]**
 - (A) Physical & biological engineering
 - (B) Bioprocess & genetic engineering
 - (C) Molecular & cellular genetics
 - (D) None of these
3. Biotechnology uses techniques to alter chemistry of **[Pg- 193,E]**
 - (A) Protein & Lipid
 - (B) Protein & RNA
 - (C) Lipid & DNA
 - (D) RNA & DNA
4. In chemical engineering processes, it is important to maintain **[Pg-194,E]**
 - (A) maintain microbe-free environment
 - (B) microbe-full environment
 - (C) sterile environment
 - (D) more than one option
5. Unique combinations of genetic setup is naturally provided by **[Pg-194,E]**
 - (A) Sexual reproduction
 - (B) Asexual reproduction
 - (C) Biotechnology
 - (D) More than one option
6. All genetic changes occurring naturally are **[Pg-194,M]**
 - (A) harmful to organism & its population
 - (B) beneficial for organism & its population
 - (C) not harmful for organism & its population
 - (D) Both A & C
7. Genetic information is preserved by **[Pg-194,E]**
 - (A) sexual reproduction
 - (B) asexual reproduction
 - (C) Both of these
 - (D) none of these

8. When a piece of DNA is transferred to an alien organism as it is **[Pg-194,M]**
 - (A) it will multiply itself
 - (B) it will not be able to multiply itself
 - (C) it will be present in progeny cells of organism.
 - (D) Both (A) & (C)
9. Chromosome replication is initiated at **[Pg-194,M]**
 - (A) gateway of replication a specific RNA sequence
 - (B) origin of replication a specific RNA sequence
 - (C) path of replication a specific RNA sequence
 - (D) None of these
10. For alien DNA to replicate it needs to be a part of **[Pg-194,H]**
 - (A) chromosome without origin of replication site
 - (B) mitochondrial DNA with origin of replication site
 - (C) chromosome with origin of replication site
 - (D) cytoplasmic DNA with origin of replication site
11. Plasmid is- **[Pg-194,E]**
 - (A) autonomously replicating, extra chromosomal
 - (B) non- autonomously replicating extra chromosomal
 - (C) autonomously replicating chromosomal
 - (D) non-autonomously replicating extra-chromosomal
12. Plasmid is **[Pg-194,E]**
 - (A) Linear RNA
 - (B) Circular RNA
 - (C) Linear DNA
 - (D) Circular DNA
13. First recombinant DNA involved native plasmid of **[Pg-194,E]**
 - (A) *Escherichia coli*
 - (B) *Salmonella typhimurium*
 - (C) *Streptococcus pneumonia*
 - (D) *Clostridium butylicom*
14. First recombinant DNA was made by **[Pg194,E]**

- (A) Herbert Cohen & Stanley Boyer, 1972
 (B) Stanley Cohen & Herbert Boyer, 1992
 (C) Stanley Cohen & Herbert Boyer, 1972
 (D) Herbert Cohen & Stanley Boyer, 1992
15. The recombinant DNA was made
[Pg-194,195,H]
 (A) before discovery of DNA cutting restriction enzymes
 (B) after discovery of DNA cutting restriction enzymes
 (C) after discovery of DNA cutting Ligases
 (D) before discovery of DNA cutting Ligases
16. The plasmid DNA linked with cut piece of DNA acts as
[Pg-195,M]
 (A) host
 (B) vector
 (C) medium to transfer the DNA piece
 (D) more than one option
17. Linking of antibiotic resistance gene with plasmid is done using enzyme
[Pg-195,M]
 (A) Ligase (B) Lyase
 (C) Hydrolase (D) Nuclease
18. The plasmid joined with required DNA of interest is transferred into..... by Boyer.
[Pg-195,E]
 (A) Escherichia coli
 (B) Salmonella typhimurium
 (C) Streptococcus pneumonia
 (D) Clostridium butylicum

PARAGRAPH-11.2 TOOLS OF RECOMBINANT DNA TECHNOLOGY

19. The key tools for recombinant DNA technology are
[Pg-195,E]
 (A) Restriction enzyme, polymerase, hydrolase, vectors
 (B) Recognition enzyme, polymerase, ligase, vector
 (C) Restriction endonuclease, polymerase, ligase, vector
 (D) Restriction enzyme, polymerase, dehydrogenase vector

PARAGRAPH-11.2.1 RESTRICTION ENZYME

20. In 1963, two restriction endonucleases were isolated in E. Coli that restricted growth of bacteriophage by **[Pg-195,M]**
 (A) cutting DNA
 (B) adding methyl group to DNA
 (C) removing methyl group to DNA
 (D) more than one option
21. The first restriction endonuclease was
[Pg-195,E]
 (A) Hind-III (B) Hind-II
 (C) Hind-I (D) Hind-IV
22. EcoRI comes from
[Pg-195,E]
 (A) genus Eichhonia
 (B) species coli
 (C) genus Echinus
 (D) species crispus
23. Recognition sequence is **[Pg-195,H]**
 (A) Specific sugar sequence in DNA which is recognized by restriction endonuclease
 (B) Specific protein sequence which is recognized by restriction endonuclease
 (C) Specific lipase sequence which is recognized by restriction endonuclease
 (D) Specific base sequence in DNA which is recognized by restriction endonuclease
24. The convention for naming restriction endonucleases is **[Pg-195,H]**
 (A) First two letters come from genus & third from species of prokaryotic cell from which they were isolated.
 (B) First two letters come from species & third from genus of prokaryotic cell from which they were isolated.
 (C) First letter come from genus & second two from species of prokaryotic cell from which they were isolated.
 (D) First letter come from species & second two from genus of prokaryotic cell from which they were isolated
25. Roman number indicate **[Pg-196,E]**
 (A) order in which enzyme were isolated
 (B) strain of bacteria
 (C) lab number in which enzyme was isolated
 (D) none of these

26. Restriction enzymes belong to **[Pg-196,E]**
 (A) Exonucleases
 (B) Endonucleases
 (C) Both
 (D) None
27. Exonuclease cuts DNA from **[Pg-196,E]**
 (A) specific position within DNA
 (B) ends of DNA
 (C) Both (A) & (B)
 (D) None of these
28. Restriction enzyme recognize **[Pg-196,M]**
 (A) Paleondromic sequence of nucleoside in DNA
 (B) Palindromic sequence of nucleoside in DNA
 (C) Paleondromic sequence of nucleotide in DNA
 (D) Palindromic sequence of nucleotide in DNA
29. ECoRI cuts DNA at **[Pg-196,H]**
 A)

$$\begin{array}{c} 5' \text{ G} \text{ |} \text{ AATTC } 3' \\ 3' \text{ CTTAA} \text{ |} \text{ G } 5' \end{array}$$

 B)

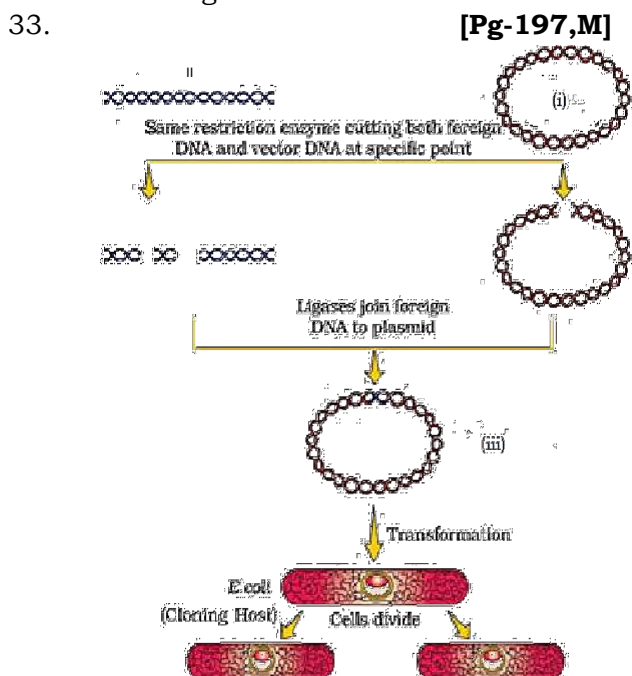
$$\begin{array}{c} 3' \text{ GAAT} \text{ |} \text{ TC } 5' \\ 5' \text{ CTTA} \text{ |} \text{ AG } 3' \end{array}$$

 C)

$$\begin{array}{c} 3' \text{ G} \text{ |} \text{ AATTC } 5' \\ 5' \text{ CTTTAA} \text{ |} \text{ G } 3' \end{array}$$

 D) All of these
30. Which of the following is a palindrome? **[Pg-197,H]**
 (A) 5' – GAATAC – 3'
 3' – CTTATG – 5'
 (B) 5' – GATATAC – 3'
 3' – CTATATG – 5'
 (C) 5' – GAATTC – 3'
 3' – CTTAAG – 5'
 (D) All of these
31. Restriction enzyme cuts DNA **[Pg-197,H]**
 (A) between same two bases on opposite strands, in centre of DNA sequence recognized
 (B) between same two bases on opposite strands, a little away from centre of DNA sequence recognized

- (C) between different two bases on opposite strands, in centre of DNA sequence recognized
 (D) between different two bases on opposite strands, living away from centre of DNA sequence recognized.
32. Same restriction enzyme produce **[Pg-197,M]**
 (A) same kind sticky ends joined using endonucleases
 (B) different kinds of sticky ends joined using ligase
 (C) same kind of sticky ends joined using ligase
 (D) different kind of sticky ends joined using endonucleases



Identify correct labelling

	(i)	(ii)	(iii)
(A)	vector plasmid	Recombinant DNA	Foreign DNA
(B)	Foreign DNA	vector plasmid	Recombinant DNA
(C)	Recombinant DNA	vector plasmid	Foreign DNA
(D)	vector plasmid	Foreign DNA	Recombinant DNA

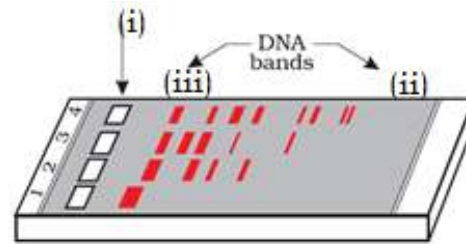
34. The process of 'Transformation' is taking place when **[Pg-197,M]**
 (A) bacteria replicates and makes copies of rDNA with it
 (B) bacteria picks up rDNA

- (C) foreign gene is added to cloning host prokaryote cell
(D) more than one option

SEPARATION & ISOLATION OF DNA FRAGMENTS

35. Technique used for separation of DNA fragments are **[Pg-198,M]**
(A) Gel electrophoresis
(B) DNA fingerprinting
(C) PCR
(D) DNA cloning
36. DNA fragments are **[Pg-198,E]**
(A) negatively charged
(B) positively charged
(C) neutral
(D) none of these
37. In gel electrophoresis, DNA are forced to move towards **[Pg-198,M]**
(A) anode under magnetic field
(B) cathode under magnetic field
(C) anode under electric field
(D) cathode under electric field
38. Matrix used in electrophoresis is **[Pg-198,E]**
(A) ethidium bromide
(B) agarose gel
(C) natural polymer extracted from sea weeds
(D) more than one option
39. Ethidium bromide is used to stain because **[Pg-198,H]**
(A) DNA fragments are visible without staining
(B) DNA fragments are not visible under staining
(C) DNA fragments are not visible without staining
(D) DNA fragments are visible under staining
40. Stained DNA is exposed to **[Pg-198,H]**
(A) visible light (B) UV light
(C) IR light (D) Radio wave
41. Colour of DNA visible under UV light after Ethidium bromide staining is **[Pg-198,H]**
(A) blue (B) black
(C) orange (D) green

42. The extraction of separated bands of DNA from agarose gel are **[Pg-198,H]**
(A) Dilution (B) Elution
(C) Elution (D) Delution
43. **[Pg-197,E]**



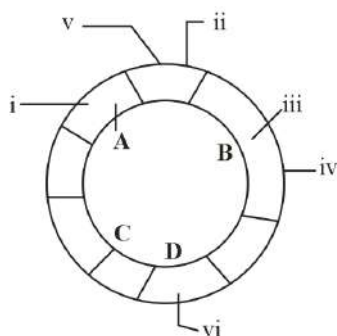
Identify labels correctly

	(i)	(ii)	(iii)
(A)	Largest DNA band	Smallest DNA band	Wells
(B)	Wells	Largest DNA bands	Smallest DNA bands
(C)	Smallest DNA bands	Largest DNA bands	Wells
(D)	Smallest DNA bands	Wells	Largest DNA bands

PARAGRAPH-11.2.2 CLONING VECTORS

44. Plasmids in bacterial cells replicate **[Pg-197,M]**
(A) depending on chromosomal DNA
(B) independent of chromosomal DNA
(C) depending on extra-nuclear DNA
(D) more than one option
45. Bacteriophages **[Pg-197,E]**
(A) replicate independent of other organisms
(B) replicate inside bacterial cell, controlled by chromosomal DNA of bacteria.
(C) replicate inside bacterial cell autonomously
(D) more than one option
46. Bacteriophages serve as ____ in biotechnology. **[Pg-197,E]**
(A) host
(B) vector
(C) molecular marker
(D) enzyme

Figure for question. (47 to 53)



47. Identify Bam HI in given plasmid figure

[Pg-199,E]

- (A) (i) (B) (ii)
(C) (iii) (D) (iv)

48. Identify antibiotic resistance gene in figure

[Pg-199,E]

- (A) Sal I (B) EcoRI
(C) amp^R (D) pBR322

49. Identify ECoRI in the plasmid [Pg-199,E]

- (A) (iv) (B) (v)
(C) (iii) (D) (ii)

50. 'A' & 'B' in figure are [Pg-199,E]

- (A) amp^R & tet^R (B) ori & amp^R
(C) tet^R & amp^R (D) rop & tet^R

51. 'rop' codes for i & is shown in figure by ii

[Pg-199,M]

- (A) proteins involved in replication ; D
(B) proteins involved in transcription, C
(C) proteins involved in transcription, D
(D) proteins involved in replication, C

52. 'Ori' means ____ & is shown in figure by

[Pg-199,E]

- (A) origin of translocation; C
(B) origin of replication ; D
(C) origin of translation ; D
(D) origin of replication; C

53. Identify pvu II in given figure of plasmid

[Pg-199,E]

- (A) i (B) ii
(C) vi (D) iv

54. Which of the following is correct?

[Pg-199,M]

- (A) Any piece of DNA linked to ori gene will be replicated
(B) Number of replication copies is under control of recognition site
(C) Vector should not be chosen based on number of copies supported by it
(D) More than one option

55. Transformants include [Pg-199,M]

- (A) cells which have picked vector with foreign DNA ligated to it.
(B) cells which have picked up vector without foreign DNA ligated to it
(C) cells which have not picked up vector
(D) Both (A) & (B)

56. Recombinants are [Pg-199,M]

- (A) cells which have picked vector with foreign DNA ligated to it.
(B) cells which have picked up vector without foreign DNA ligated to it
(C) cells which have not picked up vector
(D) Both (A) & (B)

57. Which is true about recombinant & transformant? [Pg-199,H]

- (A) All transformants are recombinants
(B) All recombinants are transformants
(C) no relation between these two
(D) Both are same thing

58. Normal E.coli cell- [Pg-199,M]

- (A) Carries resistance against antibiotics ampicillin, tetracycline and kanamycin
(B) Does not carry resistance against antibiotics ampicillin, tetracycline and kanamycin
(C) Carries resistance against ampicillin but not tetracycline and kanamycin
(D) Carries resistance against tetracycline but not ampicillin and kanamycin

59. In order to link alien DNA, vector needs to have ____ recognition sites for commonly used restriction enzymes.

[Pg-199,E]

- (A) very few
(B) preferably single
(C) many
(D) more than one option

60. Assertion- Vector should have many recognition sites for commonly used restriction enzymes.

Reason- Lot of recognition sites generate several fragments, which make gene cloning easy.

[Pg-200,H]

- (A) Assertion and Reason are both correct and Reason is correct explanation for Assertion
(B) Assertion and Reason are both correct but Reason is not correct explanation for Assertion

- (C) Assertion and Reason both are incorrect
(D) Assertion is correct but Reason is incorrect
61. If a foreign gene is ligated at Bam HI site of vector PBR322, then the resistance for _____. **[Pg-199,M]**
(A) tetracycline is lost
(B) ampicillin is lost
(C) tetracycline is not lost
(D) more than one option
62. The recombinants mentioned previous question non-recombinants by- **[Pg-199,M]**
(A) Plating the transformants on tetracycline
(B) Planting the transformants on ampicillin
(C) Both of these are necessary
(D) None of these
63. Recombinants mentioned in 'If a foreign gene is ligated at Bam HI site of vector PBR322' will- **[Pg-199,H]**
(A) Grow in ampicillin and tetracycline both
(B) Grow in ampicillin but not tetracycline
(C) Grow in tetracycline but not ampicillin
(D) Grow neither in tetracycline nor in ampicillin
64. Non-recombinants transformants will **[Pg-199,M]**
(A) Grow in ampicillin and tetracycline both
(B) Grow in ampicillin but not tetracycline
(C) Grow in tetracycline but not ampicillin
(D) Grow neither in tetracycline nor in ampicillin
65. Non-transformants E.coli will- **[Pg-199,M]**
(A) Grow in ampicillin and tetracycline both
(B) Grow in ampicillin but not tetracycline
(C) Grow in tetracycline but not ampicillin
(D) Grow neither in tetracycline nor in ampicillin
66. When rDNA is inserted in coding sequence of β -galactosidase, **[Pg-200,H]**
(A) The enzyme gets synthesized
(B) Blue coloured colonies are produced
(C) Colourless colonies are produced
(D) Orange colonies are produced
67. Ti-plasmid stands for ____ and are present in _____. **[Pg-200,E]**
(A) Tumor inhibiting, *Agrobacterium speciens*
(B) Tumor inducing, *Agrobacterium speciens*
(C) Tumor inhibiting, *Agrobacterium tumefaciens*
(D) Tumor inducing, *Agrobacterium tumefaciens*
68. The Ti-plasmid being used as cloning vector- **[Pg-200,M]**
(A) causes crown gall disease
(B) is not pathogenic
(C) is pathogenic
(D) More than one option
-
- PARAGRAPH-11.2.3 COMPETENT HOST (For transformation with recombinant DNA)**
-
69. DNA is- **[Pg-200,E]**
(A) hydrophilic and can pass through cell membrane
(B) hydrophobic and can pass through cell membrane
(C) hydrophilic and cannot pass through cell membrane
(D) hydrophobic and cannot pass through cell membrane
70. Bacterial host cells are made competent to take up rDNA by- **[Pg-200,H]**
(A) Treating with Na^+
(B) Treating with Al^{3+}
(C) Treating with Ca^{2+}
(D) More than one options
71. Choose the correct sequence to be followed to enable bacteria to take up rDNA. **[Pg-201, 202,M]**
(i) Treating with divalent cation.
(ii) Heat shock ($42^\circ C$).
(iii) Incubating on ice.
(A) i-ii-iii-ii (B) i-iii-ii-iii
(C) ii-iii-i-ii (D) iii-ii-i-iii

72. Other methods for introducing foreign DNA into host cells are- **[Pg-201,E]**
 (A) Micro-injection for animal cells
 (B) Gene gun for plant cells
 (C) Disarmed pathogens
 (D) All of these
73. In micro-injection technique, rDNA is injected into- **[Pg-201,E]**
 (A) Cytoplasm (B) Nucleus
 (C) Cell membrane (D) Lysosomes
74. In biolistics, cells are bombarded with high velocity- **[Pg-201,E]**
 (A) Micro-particles of iron
 (B) Macro-particles of tungsten
 (C) Micro-particles of gold
 (D) More than one option

PARAGRAPH-11.3 PROCESSES OF RECOMBINANT DNA TECHNOLOGY

75. Identity correct sequence of process of rDNA technology : **[Pg-201,M]**
 (i) transferring rDNA into host
 (ii) isolation of DNA fragment desired
 (iii) isolation of DNA
 (iv) culturing host cells in medium at large scale
 (v) fragmentation of DNA by restriction enzyme
 (vi) ligation of DNA fragment into a vector
 (vii) extraction of desired product
 (A) (iii) – (ii) – (v) – (vi) – (i) – (iv) – (vii)
 (B) (iii) – (v) – (i) – (vi) – (ii) – (iv) – (vii)
 (C) (iii) – (v) – (ii) – (vi) – (i) – (iv) – (vii)
 (D) (iii) – (v) – (vi) – (i) – (ii) – (iv) – (vii)

PARAGRAPH-11.3.1 ISOLATION OF THE GENETIC MATERIAL (DNA)

76. Nucleic acid is genetic material of: **[Pg-201,E]**
 (A) some organisms
 (B) no organism
 (C) all organisms without exception
 (D) most organisms with some exception
77. How many of given enzymes involved in extraction of genetic material from cell of organisms are: **[Pg-201,M]**
 (i) cellulase (ii) chitinase
 (iii) lysozyme

- (iv) Ribonuclease (v) protease
 (vi) deoxyribonuclease
 (A) 3 (B) 2
 (C) 5 (D) 6

78. Match the following: **[Pg-201,E]**

A		B
(i) cellulase		I. plant
(ii) chitinase		II. Bacteria
(iii) lysozyme		III. Fungi
	(i)	(ii)
(A) I	III	II
(B) II	III	I
(C) III	I	II
(D) I	II	III

79. Purified DNA is precipitated out by addition of: **[Pg-201,H]**
 (A) warm acetic acid
 (B) chilled acetic acid
 (C) warm ethanol
 (D) chilled ethanol

80. **[Pg-201,E]**



The figure shows DNA separated out, removed by :

- (A) spooning (B) spooling
 (C) spilling (D) speeling
81. The precipitated DNA is seen as : **[Pg- 201,M]**
 (A) collection of fine threads in suspension
 (B) collection of fine threads in solution
 (C) coagulated mass in suspension
 (D) coagulated mass in solution

PARAGRAPH-11.3.2 CUTTING OF DNA AT SPECIFIC LOCATION

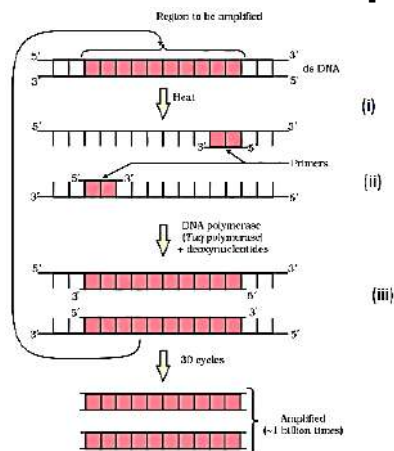
82. To check the progression of restriction enzyme digestion, _____ is used. **[Pg-202,M]**
 (A) PCR
 (B) gel electrophoresis
 (C) DNA fingerprinting
 (D) Selectable marker gene

83. Preparation of rDNA involves the enzymes: **[Pg-202,E]**
 (A) specific restriction enzyme
 (B) gene of interest
 (C) vector DNA
 (D) all of these

PARAGRAPH-11.3.3 AMPLIFICATION OF GENE OF INTEREST USING PCR

84. PCR stands for: **[Pg-202,E]**
 (A) Polynuclease chain reaction
 (B) Polyipase chain reaction
 (C) Polyamide chain reaction
 (D) None of these
85. PCR is an: **[Pg-202,E]**
 (A) in vitro process
 (B) in vivo process
 (C) both
 (D) none
86. How many sets of primers are used in PCR? **[Pg-202,E]**
 (A) 1 (B) 2
 (C) 3 (D) 4
87. Enzyme involved in PCR is: **[Pg-203,E]**
 (A) DNA endonuclease
 (B) RNA polymerase
 (C) DNA polymerase
 (D) DNase
88. The enzyme involved in PCR with thermostability is isolated from: **[Pg-203,E]**
 (A) Thermus aquaticus fungi
 (B) Escherechia coli bacteria
 (C) Agrobacterium tumefaciense bacteria
 (D) None of these

89. **[Pg-202,E]**



Identify correct labeling of sequence:

	(i)	(ii)	(iii)
A)	Annealing	Denaturation	Extension
B)	Denaturation	Extension	Annealing
C)	Denaturation	Annealing	Extension
D)	Extension	Annealing	Denaturation

PARAGRAPH-11.3.4

INSERTION OF RECOMBINANT DNA INTO THE HOST CELL / ORGANISM

90. A-Ampicillin resistance gene is called selectable marker in case E.coli is made to take up rDNA bearing ampicillin resistance gene.
 B-Such E.coli coil grow on ampicillin containing agar plates.
 Choose right option with regards to above statements. **[Pg-203,H]**
 (A) Both are correct
 (B) Only A is correct
 (C) Only B is correct
 (D) None is correct

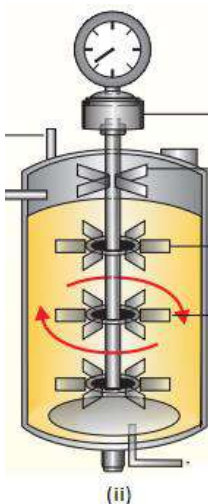
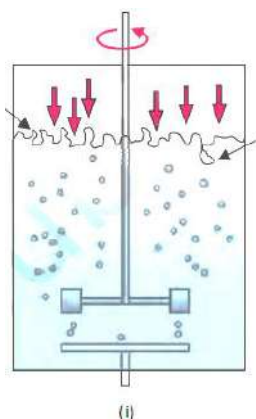
PARAGRAPH-11.3.5

PARAGRAPH- 11.3.5 OBTAINING FOREIGN GENE PRODUCT

91. If a protein encoding gene is expressed in a heterologous host, it is called: **[Pg-203,M]**
 (A) secondary protein
 (B) recombinant protein
 (C) transmitted protein
 (D) tertiary protein
92. In continuous culture system: **[Pg-203,M]**
 (A) used medium is drained at the end
 (B) used medium is drained twice in the whole process
 (C) used medium is continuously drained out
 (D) none of these
93. Bioreactors are: **[Pg-204,E]**
 (A) large vessels
 (B) used for large quantity production
 (C) used for biological conversion of raw materials into products
 (D) all of these

PARAGRAPH-11.3.6 DOWNSTREAM PROCESSING

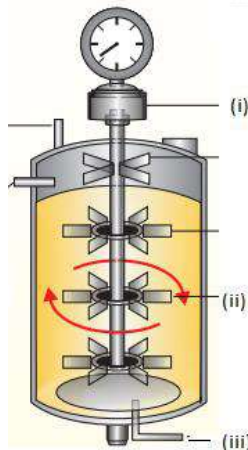
94. Downstream processing includes : **[Pg-205,E]**
 (A) separation (B) purification
 (C) both the above (D) none of these
95. A- Suitable preservatives are added
 B- These formulations need clinical trials.
 C- Quality control testing is uniform for all the products.
 How many of the above statements is incorrect? **[Pg-205,M]**
 (A) 0 (B) 1
 (C) 2 (D) 3
96. Optimal conditions for growth include. How many of the following- **[Pg-205,H]**
 pH, Salt, Temperature, Vitamin, Oxygen
 (A) 5 (B) 6
 (C) 7 (D) 4
97. **[Pg-204,E]**



Identify types of stirred-tank bioreactor-

	(i)	(ii)
(A)	Simple stirred-tank bioreactor	complex stirred-tank bioreactor
(B)	Complex stirred-tank bioreactor	simple stirred-tank bioreactor
(C)	Simple	Sparged
(D)	Sparged	Simple

98. **[Pg-204,E]**



Identify the correct labels-

	(i)	(ii)	(iii)
(A)	Motor	Culture broth	Sterile air
(B)	Culture broth	Motor	Sterile air
(C)	Motor	Sterile air	Culture broth
(D)	Sterile air	Culture broth	Motor

99. Sampling ports are mainly required to- **[Pg-204,M]**
 (A) Keep adding samples into Bioreactors
 (B) Withdraw small volume of culture
 (C) Add Acid/Base for pH control
 (D) All of these
100. Sterile air bubbles are sprayed in the biovector in a type of bioreactor. That is because- **[Pg-204,M]**
 (A) air bubbles makes it easier to agitate the system
 (B) air bubbles increase surface area for oxygen transfer
 (C) air bubbles enable microbes to grow
 (D) none of these

ANSWER KEY

BIOTECHNOLOGY PROCESS (PRINCIPLE)

Q	01	02	03	04	05	06	07	08	09	10
Ans	D	B	D	D	A	C	B	B	D	C
Q	11	12	13	14	15	16	17	18	19	20
Ans	A	D	B	C	B	B	A	B	C	D
Q	21	22	23	24	25	26	27	28	29	30
Ans	B	B	D	C	A	B	B	D	A	C
Q	31	32	33	34	35	36	37	38	39	40
Ans	B	C	D	D	A	A	C	B	C	B
Q	41	42	43	44	45	46	47	48	49	50
Ans	C	C	B	B	C	B	C	C	B	A
Q	51	52	53	54	55	56	57	58	59	60
Ans	A	D	C	A	D	A	B	B	D	C
Q	61	62	63	64	65	66	67	68	69	70
Ans	A	A	B	A	D	B	D	B	A	C
Q	71	72	73	74	75	76	77	78	79	80
Ans	B	D	B	C	C	C	C	A	D	B
Q	81	82	83	84	85	86	87	88	89	90
Ans	A	B	D	D	A	B	C	D	C	A
Q	91	92	93	94	95	96	97	98	99	100
Ans	B	C	D	C	B	A	C	A	B	B

NEET MBBS DOCTORS