BIOLOGY

BOOKS - SARAS PUBLICATION

APPLICATIONS OF BIOTECHNOLOGY

Exercise

1. The first clinical gene therapy was done for treatment fo

A. AIDS

B. Cancer

C. Cystic fibrosis

D. SCID

Answer:

Watch Video Solution

2. Dolly, the sheep was obtained by a technique known as

A. Cloning by gene transfer

B. Cloning without the help of gametes

C. Cloning by tissue culture of somatic cells

D. Cloning by nuclear transfer

Answer:

Watch Video Solution

3. The genetic defect adenosine deaminase (ADA) deficiency may be cured permanently by

A. Enzyme replacement therapy

B. Periodic infusion of genetically engineered lymphocytes having ADA cDNA

C. Administering adenosine deaminase activators

D. Introducing bone marrow cells producing ADA into embryo at an early stage of development

Answer:

Watch Video Solution

4. How many amino acids are arranged in the two chains of Insulin?

A. Chain A has 12 and Chain B has 13

B. Chain A has 21 and Chain B has 30 amino acids

C. Chain A ahs 20 and Chain B has 30 amino acids

D. Chain A has 12 and Chain B has 20 amino acids.

Answer:

Watch Video Solution

5. PCR proceeds in three distinct steps governed by temperature, they are in order of

A. Denaturation, Annealing, Synthesis

B. Syntesis, Annealing, Denaturation

C. Annealing, Synthesis, Denaturation

D. Denaturation, Synthesis, Annealing

Answer:

Watch Video Solution

6. Which of the following statements are true regarding DNA polymerase used in PCR ?

A. It is used to ligate introduced DNA in recipient cells

B. It serves as a selectable marker

C. It is isolated from a virus

D. It remains active at a high temperature.

Answer:

Watch Video Solution

7. ELISA is mainly used for

A. Detection of mutations

B. Detection of pathogens

C. Selecting animals having desired traits

D. Selecting plants having desired traits.

Answer:

Watch Video Solution

8. Transgenic animals are those which have

A. Foreign DNA in some of their cells

B. Foreign DNA in all their cells

C. Foreign RNA in some of their cells

D. Foreign RNA in all their cells

Answer:

Watch Video Solution

9. Recombinant Factor VIII is produced in the _____ cells of the Chinese Hamster .

A. Liver cells

B. Blood cells

C. Ovarian cells

D. Brain cells

Answer:

Watch Video Solution

10. Vaccines that use components of a pathogenic organism rather than the whole organism are called .....

A. Subunit recombinant vaccines

B. Attenuated recombinant vaccines

C. DNA vaccines

D. Conventional vaccines

Answer:

Watch Video Solution

11. From the given statements,select the suitable answer. Statement A: Recombinant DNAtechnology plays role in processing of material by chemical agents to provide goods and services .Statement B: It is also useful for large scale production of various hormones and therapeutic proteins

A. Statement A is correct and statement B is wrong

B. Both the statement A and B are correc

C. Both the statement A and B are wrong

D. Statement A is wrong and statement B is correct

Answer:

Watch Video Solution

12. Insulin controlsthe levels of...in blood.

A. Oxygen

B. Glucose

C. Glycogen

D. Haemoglobin

Answer:

Watch Video Solution

13. Which of the following is not considered as biotechnology product in modern sense?

A. Somatotropin hormone

B. Bread and wine

C. DNA vaccines

D. Humulin production

Answer:

Watch Video Solution

14. How was diabetic patients treated in earliertimes?

A. Insulin from pancreas of dog

B. Insulin from pancreas of cat

C. Insulin from pancreas of rat

D. None of the above

Answer:

Watch Video Solution

15. StatementA: Human insulin is formed of 51 amino acids arranged in two polypeptide chains, A and B. Statement B: The polypeptide chain A has 30 amino acids and the polypeptide chain B has 21 amino acids.

A. Statement A is correct and statement B is wrong

B. Statement A is wrong and statement B is correct

C. Both the statement A and B are correct

D. Both the statement A and B are wrong

Answer:

Watch Video Solution

Watch Video Solution

16. Deficiency of insulin leads to .....

A. Diphtheria

B. Diabetes mellitus

C. Dengue

D. None of the above

Answer:

Watch Video Solution

17. From the given statements,select the suitable answer Statement A: The structure of animal insulin is different from human insulin. Statement B: It caused allergic reactions to some diabetic patients

A. Both the statement A and B are correct

B. Both the statement A and B are wrong

C. Statement A is correct and statement B is wrong

D. Statement A is wrong and statement B is correct

Answer:

Watch Video Solution

18. The two chains of Insulin molecule are attached by _____

A. Monosulphide bond

B. Covalent bonds

C. Hydrogen bonds

D. Disulphide bonds

Answer:

Watch Video Solution

19. Pre-pro insulin is formed by _____

A. Leader sequence

B. C-chain

C. Disulphide bonds

D. Polypeptide chains

Answer:

Watch Video Solution

20. What was the first pharmaceutical product of recombinant DNA technology administered to humans?

A. Somatotropin

B. DNA vaccines

C. Humulin

D. Gene therapy

Answer:

Watch Video Solution

21. During the maturation of 'Insulin' from 'Pro insulin

A. C-chain is removed from pro insulin

B. C-chain is added to pro insulin

C. Leadersequence is removed from pro insulin

D. Leader sequence is added to pro insulin

Answer:

Watch Video Solution

22. The human protein richly found in the transgenic cow, Rosie is

A. Alpha lactalbumin

B. Serum albumin

C. Casein

D. Lactoferrin

Answer:

Watch Video Solution

23. How much of human alpha lactalbumin is found in the milk oftransgenic cow?

A. 2.2 gm / litre

B. 4.2 gm / litre

C. 1.2 gm /litre

D. 2.4 gm / litre

Answer:

Watch Video Solution

Watch Video Solution

24. Deficiency of human growth hormone causes.....

A. Rheumatism

B. Dwarfism

C. Autism

D. Mutualism

Answer:

Watch Video Solution

25. Mass production of hGH is carried out by .....

A. Genetic engineering

B. Fermentation technology

C. Biotechnology

D. Gene therapy

Answer:

 Watch Video Solution

26. The recombinant form of human growth hormone used as drug is.....

A. Somatropin

B. Testosterone

C. Serotonin

D. Estrogen

Answer:

Watch Video Solution

27. The restriction enzyme used to cut bacterial plasmid and gene for human growth hormone is

A. Hind III

B. BamH I

C. EcoR I

D. EcoR II

Answer:

Watch Video Solution

28. Recombinant Factor VIII is produced in the _____ cells of the Chinese Hamster .

A. Kidney cells

B. Ovarian cells

C. Liver cells

D. Blood cells

Answer:

29. The genes for the formation of the blood clotting factor VIII is located in the _____ . Chromosome.

A. Autosome

B. Y-chromosome

C. 8th chromosome

D. X-chromosome

Answer:

Watch Video Solution

30. The genetic defect in the synthesis of blood clotting factor VIII results in.....

A. Haemophilia A

B. Anaemia

C. Polycythemia

D. Thalassemia

Answer:

Watch Video Solution

Watch Video Solution

31. Which technology helps in the production of new DNA molecule by combining sequencesfrom DNA of two different cells?

A. Fermentation technology

B. Gene therapy

C. Recombinant DNA technology

D. DNA hybridization

Answer:

Watch Video Solution

32. Saccharomyces cerevisiae is more suibtal for the production of recombinant interferons that E.coli.The reason is.

A. Saccharomyces cerevisiae grows fast in the medium

B. Saccharomyces cerevisiae does not passes machinery for glycosylation of proteins

C. E.coli grows slowly in the medium

D. E.coli does not possess the machinery for glycosylation of proteins

Answer:

Watch Video Solution

33. Interferons were discovered by _____

A. Alick Issacs and Jean Lindemann

B. Best and Banting

C. Eva Engvall and Peter Perlman

D. Ian Wilmut and Campbell

Answer:

Watch Video Solution

34. Statement I : Interferons are proteinaceous, antibacterial and species specific substance product by mammalian cells when injected with bacteria.

Statement II : Interferons and Human blood clotting factor VIII can be isolated from blood but with same risk.

A. Statement A is correct and Statement B is wrong

B. Both statement A and Statement B are correct

C. Both statement A and Statement B are wrong

D. StatementA iswrong andStatement B is correct

Answer:

Watch Video Solution

35. The name of the drug used in cancer treatment produced by recombinant technology is

A. Interferon

B. Somatotropin

C. Humulin

D. Recombivax

Answer:

Watch Video Solution

Watch Video Solution

36. The first synthetic vaccine produced was _____

.

A. MMR

B. HB vaccine

C. Polio

D. BCG

Answer:

Watch Video Solution

37. This is a live vaccine, in this gentically modified pathogens are made to non pathogenic.

A. Conventional vaccine

B. Subunit recombinant vaccine

C. DNA vaccine

D. Attenuated recombinant vaccine

Answer:

Watch Video Solution

38. Which is not the advantage of recombinant vaccine?

A. Triggering immune response against specific pathogens

B. Produce less toxic effects

C. Expensive to design

D. Produce long lasting immunity

Answer:

Watch Video Solution

39. Edible vaccines are not effective against.....

A. Cancer

B. Foot andmouth disease

C. Measles

D. Cholera

Answer:

Watch Video Solution

40. The first country to develop an indigenous hepatitis B vaccine

A. India

B. Belgium

C. France

D. USA

Answer:

Watch Video Solution

41. Select the suitable answer with respect to Subunit recombinant vaccines from the statements given below.

Statement A : The components of a pathogenic

organism is used rather than the whole organism.

Statement B : The components are proteins, peptides and DNA

A. Statement A is correct and Statement B is wrong

B. Both the statements A and B are correct

C. Statement A is wrong and Statement B is correct

D. Both the statement A and B are wrong

Answer:

Watch Video Solution

42. Which is suitable for the production of recombinant vaccine?

A. E.coli

B. Saccharomyces cerevisiae

C. Mycobacterium tuberculosis

D. Thermus aquaticus

Answer:

Watch Video Solution

43. Single gene mutations can be corrected by gene therapy for diseases like

A. Cystic fibrosis

B. Diabetes mellitus

C. Multiple sclerosis

D. Foot and mouth disease

Answer:

Watch Video Solution

44. Select the suitable answer with respect to gene therapy from the statements given below:

Statement A: ADA deficiency or SCID (Severe Combined Immunodeficiency) is an autosomal dominant metabolic disorder.

Statement B : It can be cured permanently if ADA gene is introduced into the cells of early embryonic stages.

A. Statement A is correct and Statement B is wrong

B. Both the statement A and B are correct

C. Statement A is wrong and Statement B is correct

D. Both the statement A and B are wrong

Answer:

Watch Video Solution

45. In the geom line gene therapy, the genes are introduced into the _____ .

A. Bone marrow cells

B. Blood cells

C. Skin cells

D. Eggs and sperms

Answer:

Watch Video Solution

46. Where do the Edible vaccines target?

A. Cell mediated immune system

B. Systemic and Mucosal immune system

C. Both a and b

D. None of the above

Answer:

Watch Video Solution

47. An adult stem cell is also called.....

A. Somatic stem cell

B. Embryonic stem cell

C. Non-embryonic stem cell

D. Amniotic fluid stem cell

Answer:

Watch Video Solution

48. Which of the following is rich source of adult stem cells during a stem cell transplant?

A. Adipose tissue

B. Blood

C. Bone marrow

D. None of the above

Answer:

Watch Video Solution

49. Statement A : Pluripotency refers to stem cells that differentiates into three germ layers.

Statement B : Multipotency refers to stem cells that

can differentiate into various types of cells that are related

A. Statement A is correct and Statement B is wrong

B. Both the statement A and B are correct

C. Both the statement A and B are wrong

D. Statement A is wrong and Statement B is correct

Answer:

Watch Video Solution

50. In mammals embryonic stem cells are

I. Totipotent

II. Pleuripotent

III . Multipotent

IV. Oligopotent

V. Unipotent .

A. Pluripotent

B. Oligopotent

C. Totipotent

D. Multipotent

Answer:

 Watch Video Solution

51. Which one is not the application of stem cells?

A. To test new drugs

B. Regenerates diseased organs

C. Repairs damaged tissue

D. To produce identical individuals

Answer:

Watch Video Solution

52. If a sample has low concentration of a bacteria or a virus, then what laboratory technique will you use for early detection of the disease?

A. Microscopic examination

B. PCR

C. Serum analysis

D. Urine analysis

Answer:

Watch Video Solution

53. StatementA: Laboratory techniques are direct and alwaysspecific. Statement B : Scientists research for specific,sensitive and simple diagnostic techniquesfor diagnosis of diseases.

A. Statement A is correct and Statement B is wrong

B. Both the statement A and B are correct

C. Both the statement A and B are wrong

D. Statement A is wrong and Statement B is correct

Answer:

Watch Video Solution

54. Which one the following cannot be detected by ELISA?

A. Serum antibody concentration

B. Specific antigens

C. DNA of interest

D. Human chorionic gonadotropin

Answer:

Watch Video Solution

55. The purpose of using substrate in the ELISA test is

A. to showantigen-antibody reaction

B. to show immobilized antigen

C. to show immobilized antibody

D. to show the coloured product

Answer:

Watch Video Solution

56. Identify those correct sequence of ELISA testing .

A.

$$Detection \to Readout \to Coat \in g \to Block \in g$$

B.

$$Readout \to Coat \in g \to \det ection \to Block \in g$$

C.

$$Coat \in g \to Block \in g \to Detection \to Readout$$

D.

$$Block \in g \to Detection \to Coat \in g \to Readout$$

Answer:

Watch Video Solution

57. ELISA can detect antigens in the range of a.....

A. Nanogram

B. Milligram

C. Kilogram

D. Microgram

Answer:

Watch Video Solution

58. PCR technique was developed by.....

A. Kary Mullis

B. Eva Engvall

C. Peter Perlman

D. French Anderson

Answer:

Watch Video Solution

59. Thfe technique which synthesizes multiple identical copies of DNA of interest

A. ELISA

B. PCR

C. Cloning

D. Recombinant DNA technology

Answer:

Watch Video Solution

60. When thedoublestrandedDNA ismade to separate into two individual strands by high temperature, it is called.....

A. Renaturation

B. Denaturation

C. Extension

D. Amplification

Answer:

Watch Video Solution

61. PCR cycle is repeated generally for.....

A. 125 to 200 times

B. 225 to 375 times

C. 25 to 75 times

D. 50 to 500 times

Answer:

Watch Video Solution

62. What is the technique called when RNA of interest is amplified?

A. Multiplex-PCR

B. Nested-PCR

C. Asymmetric -PCR

D. Reverse transcription-PCR

Answer:

Watch Video Solution

63. The enzymes used for the amplification of RNA

A. Taq polymerase and helicase

B. Reverse transcriptase and taq polymerase

C. ADA enzyme and reverse transcriptase

D. Hydrogen peroxidase and taq polymerase

Answer:

Watch Video Solution

64. Which of the following is not a true option for the identification of a pathogen by traditional methods?

A. Culture

B. Antigen-antibody reaction

C. Biochemical tests

D. Metabolic tests

Answer:

Watch Video Solution

65. Tuberculosis is caused by

A. Saccharomyces cerevisiae

B. Mycobacterium tuberculosis

C. Escherichia coli

D. Thermus aquaticus

Answer:

Watch Video Solution

66. StatementA: PCR uses primers and DNA probes specific for sex chromosomes to determine sex of human beings and live stocks.Statement B : PCR can detect sickle cell anaemia, P-thalassemia and Phenylketonuria.

A. Statement A is correct and Statement B is wrong

B. Both the statement A and B are correct

C. Both the statement A and B are wrong

D. Statement A is wrong and Statement B is correct

Answer:

Watch Video Solution

67. PCR isimportant in the study of.....

A. Phylogenetics

B. Histology

C. Anatomy

D. Economic biology

Answer:

Watch Video Solution

68. A single molecule of DNA can be amplified by PCR from samples such as.....

A. Blood stains

B. Hair

C. Semen

D. All of the above

Answer:

Watch Video Solution

69. Which is an important tool in forensic science?

A. Bacteriology

B. Forestry

C. DNA fingerprinting

D. Paleontology_

Answer:

Watch Video Solution

70. What method was carried in earlier days to improve the genetic characteristic of live stock and domestic animals?

A. Pruning

B. Selective breeding

C. Transgenesis

D. Animal husbandry

Answer:

Watch Video Solution

71. . The foreign DNA introduced into animal genome to create desired heritable characters is.....

A. Interferons

B. DNA vaccines

C. Transgene

D. hGH gene

Answer:

Watch Video Solution

Watch Video Solution

72. Which one of the following is not the correct term used when animals are produced by DNA manipulations?

A. Selective breeding

B. Transgenic animals

C. Genetically engineered animals

D. Genetically modified animals

Answer:

Watch Video Solution

73. Transgenic mice is used to test .....

A. Quality of wool

B. Quantity of milk

C. Safety of vaccines

D. To study gene expression

Answer:

Watch Video Solution

74. Biological products are produced in biotechnology with the help of

A. Micro-organisms

B. Plant cells

C. Animal cells

D. All of the above

Answer:

 Watch Video Solution

75. Monoclonal antibodies are used to treat.....

A. Cancer

B. Heart disease

C. Transplant rejection

D. All of the above

Answer:

Watch Video Solution

76. Organisms naturally produce clones through.....

A. Sexual reproduction

B. Asexual reproduction

C. Cloning

D. Transgenesis

Answer:

Watch Video Solution

77. Name the first transgenic mammal clone?

A. Rosie

B. Daisy

C. Dolly

D. Millie

Answer:

Watch Video Solution

78. Statement A : Totipotency refers to nthe potential of a cell to develop different cells, tissues, organs and finally an organism. Statement B: Dolly, the transgenic clone was obtained as a result of totipotency.

A. Statement A is correct and Statement B is wrong

B. Both the statement A and B are correct

C. Both the statement A and B are wrong

D. Statement A is wrong and statement B is correct

Answer:

Watch Video Solution

79. The somatic uddercellsisolated froma donor ewe sheep was made to starve for..... ..... days in the process of cloning.

A. 5

B. 15

C. 25

D. 50

Answer:

Watch Video Solution

80. Which one of the following is not an advantage of cloning animals?

A. Aids stem cell research

B. Helps in production of proteins

C. Can save endangered species

D. Cloned animals age faster

Answer:

Watch Video Solution

81. Ian Wilmut and Campbell fused 277 somatic udder cells with 277 enucleated egg cells. The resultant embryo was caltured for 6 day. How many embryos was then implanted into the surrogate mother's womb?

A. 9 embryos

B. 29 embryos

C. 19 embryos

D. 39 embryos

Answer:

Watch Video Solution

82. The term 'Biotechnology' was coined by.....

A. Karl Ereky

B. Eva Engvall

C. Alick Issacs

D. Ian Wilmut

Answer:

Watch Video Solution

83. Biotechnology plays great role in.....

A. Health care

B. Agriculture

C. Environment

D. All of the above

Answer:

Watch Video Solution

84. These questions consists of two statements each printed as Assertion and Reason. Choose any one of the following response to answer these questions. Both Assertion and Reasort are true and Reason is correct explanation of Assertion.Both Assertion and Reason are true but Reason is not correct explanation

of Assertion . Assertion is true but Reason is false Both Assertion and Reason are false: Assertion: In gene therapy, normal gene istransferred into person's cellsthat carries mutant alleles by using a vector J2 Reason : When normal gene is expressed, it results in a functional gene & product which produces a normal phe- 2 notype.

Watch Video Solution

85. These questions consists of two statements each printed as Assertion and Reason. Choose any one of the following response to answer these questions. Both Assertion and Reasort are true and Reason is

correct explanation of Assertion.Both Assertion and Reason are true but Reason is not correct explanation of Assertion . Assertion is true but Reason is false Both Assertion and Reason are false: Assertion :Stem cells can act as a c repair system by regenerating damaged and diseased organs. Reason :Stem cells are capable ofself renewal and exhibit cellular potency.

 Watch Video Solution

86. These questions consists of two statements each printed as Assertion and Reason. Choose any one of the following response to answer these questions. Both Assertion and Reasort are true and Reason is

correct explanation of Assertion.Both Assertion and Reason are true but Reason is not correct explanation of Assertion . Assertion is true but Reason is false Both Assertion and Reason are false: Assertion : During primer extension, the PCR mixture is heated to $75^{\circ}C$ to extend each primer by copying the single stranded template. Reason : The primary template synthesis DNA by using Taq-polymerase.

Watch Video Solution

87. These questions consists of two statements each printed as Assertion and Reason. Choose any one of the following response to answer these questions.

Both Assertion and Reasort are true and Reason is correct explanation of Assertion.Both Assertion and Reason are true but Reason is not correct explanation of Assertion . Assertion is true but Reason is false Both Assertion and Reason are false: Assertion : PCR can detect sex linked isordersin fertilized embryos. Reason :Inherited disease isidentified using chorionic villisamples or cellsfrom amniocentesis.

Watch Video Solution

88. These questions consists of two statements each printed as Assertion and Reason. Choose any one of the following response to answer these questions.

Both Assertion and Reasort are true and Reason is correct explanation of Assertion.Both Assertion and Reason are true but Reason is not correct explanation of Assertion . Assertion is true but Reason is false Both Assertion and Reason are false: Assertion : Biosafety guidelines have been formulated by many countries for DNA recombinant manipulations. Reason : Statutory bodies have been constituted to monitor and approve biotechnological processes and products.

Watch Video Solution

Example

1. What is genetically engineered insulin ?

Watch Video Solution

2. How was Insulin obtained before the advent of rDNA technology? What were the problems encountered?

Watch Video Solution

3. ELISA is a technique based on the principles of antigen- antibody reactions. Can this technique be

used in the molecular diagosis of a genetic disorder such as Phenylketonuria?

Watch Video Solution

4. Gene therapy is an attempt to correct a Genetic defect by providing a normal gene into the individual. By this the function can be restored. An alternate method would be to provide gene product known as enzyme replacement therapy, which would also restore the function. Which in your opinion is a better option? Give reasons for your answer.

Watch Video Solution

5. If a person thinks he is infected with HIV, due to unprotected sex, and goes for a blood test. Do you think a test such as ELISA will help ? If so why ? If not , why ?

Watch Video Solution

6. What are DNA vaccines ?

Watch Video Solution

7. Explain how "Rosie" is different from a normal cow.

Watch Video Solution

8. Mention the number of primers required in each cycle of PCR. Writen the role of primers and DNA polymerase in PCR. Name the source organism of DNA polymerase used in PCR.

Watch Video Solution

9. What are transgenic animals?

Watch Video Solution

10. Differentiate between Somatic cell gene therapy and Germline gene therapy.

Watch Video Solution

11. What are stem cells? Explain their role in the field of medicine.

Watch Video Solution

12. PCR is a useful tool for early diagnosis of an Infectious disease. Elaborate.

Watch Video Solution

13. Explain why cloning of Dolly, the sheep was such a major scientific breakthrough ?

Watch Video Solution

14. Mention the advantages and disadvantages of cloning.

Watch Video Solution

15. How is the amplification of a gene sample of interest carried out using PCR ?

Watch Video Solution

16. Explain how ADA deficiency can be corrected ?

Watch Video Solution

17. One of the applications of biotechnology is 'gene therapy" to treat a person born with a hereditary disease.

(i) What does "gene therapy " mean ?

Watch Video Solution

18. Name the hereditary disease for which the first clinical gene therapy was used.

Watch Video Solution

19. Mention the steps involved in gene therapy to treat this disease.

Watch Video Solution

20. What are recombinant vaccines ? Explain the types .

Watch Video Solution

21. Describe subunit recmbinant vaccines?

Watch Video Solution

22. What are attenuated recombinant vaccines?

Watch Video Solution

23. What are DNA vaccines ?

Watch Video Solution

24. Explain how recombinant Insulin can be produced.

Watch Video Solution

25. Explain the steps involved in the production of recombinant h GH.

Watch Video Solution

26. What is genetic engineering?

Watch Video Solution

27. What the deficiency disease cause by HGH?

Watch Video Solution

28. What is rDNA?

Watch Video Solution

29. What are the functions of Insulin? Name the disorder caused due to the deficiency of insulin.

Watch Video Solution

30. Write about somatic cell nuclear transfer in animal cloning.

Watch Video Solution

31. What are human growth hormones?

Watch Video Solution

32. What are the functions of human growth hormones?

Watch Video Solution

33. Name a factor which is required for normal blood clotting and mention the location of the gene for its formation.

Watch Video Solution

34. What is Haemophilia A?

Watch Video Solution

35. What are the disadvantages involved in the isolation of clotting factor VIII for the treatment os haemophilia 'A'?

Watch Video Solution

Watch Video Solution

36. What are interferous?

Watch Video Solution

37. Name some diseases that can be treated using interferons.

Watch Video Solution

38. What are recombinant vaccines ? Explain the types .

Watch Video Solution

39. Why is E.coli not preferred for the production of recombinant interfferons? Which organism is suitable for its production?

Watch Video Solution

40. Define attenuated vaccine.

Watch Video Solution

41. Can DNA vaccine cause the disease ?

Watch Video Solution

42. How recombinant vaccines are useful than conventional vaccines?

Watch Video Solution

43. Name the trade names by which recombinant hepatitis B vaccines are marketed.

Watch Video Solution

44. What is edible vaccine?

Watch Video Solution

45. What is gene therapy?

Watch Video Solution

46. What are the two strategies involved in gene therapy?

Watch Video Solution

47. What is gene augmentation therapy ?

Watch Video Solution

48. What is gene inhibition therapy?

Watch Video Solution

49. What is somatic cell gene therapy?

Watch Video Solution

50. What is germline gene therapy?

Watch Video Solution

51. Name SCID.

Watch Video Solution

52. What are the challenges faced by the gene therapists in preparation of a gene for gene therapy?

Watch Video Solution

53. What is stem cell therapy?

Watch Video Solution

54. Stem cells

Watch Video Solution

55. Types of stem cells

Watch Video Solution

56. Define embryonic stem cells.

Watch Video Solution

57. Differentiate embryonic stem cells and adult stem cells.

Watch Video Solution

58. Define totipotency and unipotency.

Watch Video Solution

59. Name the techniques that are reliable and helpful in early molecular diagnosis of infections diseases?

Watch Video Solution

60. Mention the applications of ELISA in the medical field.

Watch Video Solution

61. Differentiate pluripotency and multipotency.

Watch Video Solution

62. What is oligopotency ?

Watch Video Solution

63. What is the use of stem cell banking?

Watch Video Solution

64. What is Amniotic cell bank?

Watch Video Solution

65. Name the different ELISA methods.

Watch Video Solution

66. What are the unique features of ELISA test?

Watch Video Solution

67. What is PCR?

Watch Video Solution

68. What are primers?

Watch Video Solution

69. What is denaturation ?

Watch Video Solution

70. What is primer extension or synthesis?

Watch Video Solution

71. What is DNA amplification?

Watch Video Solution

72. What is the PCR used to diagnose corona virus?

Watch Video Solution

73. What is RT-PCR?

Watch Video Solution

74. What are the diseases detected by PCR?

Watch Video Solution

75. Define Transgenesis.

Watch Video Solution

76. What is transgene?

Watch Video Solution

77. What are Transgenic animals?

Watch Video Solution

78. Define biological products.

Watch Video Solution

79. Give examples for biological products.

Watch Video Solution

80. Name some recombinant products produced by rDNA technology.

Watch Video Solution

81. Mention the desirable proteins produced by using transgenic animals as bioreactors.

Watch Video Solution

82. What are natural protein adhesives? Mention their uses.

Watch Video Solution

83. What is cloning?

Watch Video Solution

84. Which group considers cloning as a threat to biodiversity? Why?

Watch Video Solution

85. What do you know about 'gene knock out'?

Watch Video Solution

86. Define biotechnology.

Watch Video Solution

87. Name the two major branches of biotechnology.

Watch Video Solution

88. In which field does genetically modified organisms play a positive role in developed and developing countries?

Watch Video Solution

89. What are the ethical issues faced by biotechnology?

Watch Video Solution

90. The genetic defect in the synthesis of blood clotting factor VIII results in.....

Watch Video Solution

91. Write a short note on interferons.

Watch Video Solution

92. Write notes on edible vaccines? Where do they target?

Watch Video Solution

93. List the applications of PCR.

Watch Video Solution

94. Differentiate embryonic stem cells and adult stem cells.

Watch Video Solution

95. Discuss the uses of transgensis.

Watch Video Solution

96. How are stem cells categorised based on their potency?

Watch Video Solution

97. What is Engerix-B? Explain the production of it with a diagram?

Watch Video Solution

98. How does an ELISA technique work?

Watch Video Solution

99. Mention the steps involved in the production of transgenic organisms.

Watch Video Solution

100. Define cloning. Explain cloning of Dolly in detail with a diagram.

Watch Video Solution

101. Explain the production of transgenic animals to produce transgenic human milk.

Watch Video Solution

102. Suresh has fever, cough and breathing difficulties. Can you identify the infection he has? How it can be diagnosed?

Watch Video Solution