Protein Synthesis and Biotech Bingo Questions

1. This carries the DNA message to the ribosome - mRNA
2. This type of mutation is what causes sickle cell anemia – point mutation
3. This causes Down Syndrome – Trisomy 21
4. This process has to be done in order to clone - Enucleate
5. This project has found about 1800 disease genes – The Human Genome Project
6. These are the bonds that hold together amino acids – Peptide bonds
7. This results in a female having only 1 X chromosome – turners syndrome
8. The DNA sequence for this is TCGGACTCC – AGCCUGAGG
9. This process puts DNA into fragments by size – Gel electrophoresis
10. This pair of chromosomes determines the babys sex – the 23rd pair
11. This nitrogen base is only present in RNA – uracil
12. An RNA codon chart – pic of the chart
13. Displaying DNA with mutations – pic of dna with mutation
14. This is an example of transgenic organisms – disease resistant potatoes, etc.
15. This is the sugar present in DNA - Deoxyribose
16. This is a map of genes on a chromosome – the linkage map
17. This is the END result of mitosis – daughter cells identical to the parent
18. This is another name for a protein – polypeptide
19. This picture is demonstrating replication
20. This is present on tRNA that tells the tRNA exactly where to line up on the mRNA – anti-codon
21. A picture of a protein chain
22. These are also called somatic cells – body cells
23. This enzyme attaches free nucleotides during DNA replication
24. Chromotids
25. This structure does not allows DNA to leave the nucleus – nuclear membrane
26. This type of RNA makes up the ribosome – rRNA
27. This is showing the process of translation
28. This charge is opposite of what the charge of DNA is – positive charge
29. This chromosomes necessary for a male baby – XY
30. Demonstrates DNA replication
31. Anaphase
32. A centromere
33. This explains a characteristic of hydrogen bonds – weak bonds that break easily
34. This demonstrates a restriction enzyme
35. This is a karyotype
36. This process happens in the nucleus and makes mRNA - trnascription
37. This is where translation occurs – in the ribosome
38. This is a type of protein that is inserted for people with hemophilia or diabetes – clotting factor, insulin
39. This is the process that made Dolly the sheep – cloning
40. A nucleotide
41. A tRNA molecule
42. This shows a plasmid
43. This equals 1 codon – 3 nitrogen bases
44. This is a process used to detect genetic disorders in a baby - amniocentesis
45. This could cause a mutation – tanning spray, etc
46. This type of mutation causes a change in all amino acids that come after – frameshift
47. This explains what the enzyme helicase does – unzips DNA for replication
48. This is uncondensed DNA – chromatin
49. A DNA fingerprint
50. This is the shape of mRNA – half a helix
51. These are the only people whose DNA fingerprint is the same – identical twins
52. This enzyme reseals DNA – DNA ligase
53. This is the number of chromosomes you get from just one parents – 23
54. This is the sugar found RNA – ribose
55. This shows a translocation mutation
56. This is another name for sex cells – gametes
57. This tells the protein when to break off and fold into a new protein – a stop codon
58. Deletion and insertion are examples of these mutations – chromosomal mutations
59. Metaphase
60. This is the fluid removed from around the baby during amniocentesis – amniotic fluid
61. These cells are found in the bone marrow – stem cells
62. This is an example of Klinefelter’s Syndrome
63. This enzyme splices DNA – restriction enzyme
64. This is an example of sickle cell anemia
65. Something DNA fingerprints are used for
66. This is the total number of chromosomes a human has – 46
67. This is a disease that we are trying to cure with gene therapy
68. This shows the cell cycle
69. This is where translation occurs – the ribosome
70. What we currently use selective breeding on – domestic pets, plants
71. This enzyme temporarily unzips DNA for transcription – RNA polymerase
72. These are found only in animal cells for mitosis and meiosis
73. This syndrome results in a male with extra X chromosomes – Klinefelters
74. This is what makes up DNa and RNA, it has 3 parts - nucleotide
75. These twins do NOT have identical DNA fingerprints – fraternal twins
76. This is DNA that has been recombined – recombinant DNA
77. This is an example of cloning – Dolly the sheep
78. These bonds hold together thymine and adenine in DNA – hydrogen bonds
79. This is the longest phase of the cell cycle – interphase
80. This codon begins the process of making a protein – the start codon
81. This nitrogen base pairs with uracil in RNA – adenine
82. This is an example of an amino acid
83. These are the chromosomes that represent a female
84. This is circular in shape.
85. This is the charge of DNA – negative
86. This nitrogen base is only present in DNA – Thymine
87. These scientists use DNA fingerprinting – forensic scientists
88. This project has been going on for years and is mapping genes on the human chromosome
89. The mRNA transcription of this codon is AGC – TCG
90. The anti-codon for this codon is CAU – GUA
91. This is a prokaryotic cell
92. This connects the two chromtids together – centromere
93. This type of mutations involves removing one nitrogen base – deletion mutation
94. This is the shape of DNA
95. This demonstrates transcription
96. This describes phosphates – holds sugars together
97. This protein is lacking in someone with hemophilia – blood clotting factor
98. This is an example of a somatic cell
99. This is a picture of recombinant DNA
100. This is an example of a transgenic organism