Name: _____

Retroviruses Worksheet

1) Retroviruses store their genetic information in RNA. What advantage does this have?

2) What is a malignant transformation?

3) How are HIV and AIDS related?

4) If HIV did not have glycoproteins could it still infect cells? Why?

5) What is the importance of reverse transcriptase?

6) Why are retrovirus infections so difficult to treat?

7) What types of cells does HIV target?

8) When was HIV discovered?

9) What is meant by the term viral load?

10) What do HIV infected people normally die of?

11) Why is it so difficult to create a vaccine against HIV?

12) What beneficial role could retroviruses play?

13) What are some of the risks associated with the future uses of retroviruses?

14) How does HIV gain entrance into a cell? To answer this question draw the steps described in the article and write a caption describing what is happening. (label everything)

15) What does HIV stand for? What does AIDS stand for?

Key

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Retroviruses Worksheet

1) Retroviruses store their genetic information in RNA. What advantage does this have?

/1 RNA → proteins ∴Faster production of proteins
-Immediate protein production

2) What is a malignant transformation?

/1 a genetic change that makes healthy cells cancerous.

3) How are HIV and AIDS related?

/2 HIV = virus AIDS = Disease/Syndrome

4) If HIV did not have glycoproteins could it still infect cells? Why?

/1 No. because it could not bind to the receptors on the target cell.

5) What is the importance of reverse transcriptase?

/1 - Converts RNA → DNA
- Allows DNA production so DNA can enter host cell's genome form provirus.

6) Why are retrovirus infections so difficult to treat?

/1 Genetic mutation.

7) What types of cells does HIV target?

/1 T-cells, connective tissue.

8) When was HIV discovered?

/1 1983

9) What is meant by the term viral load?

/1 the amt of virus in the blood.

10) What do HIV infected people normally die of?

/1 opportunistic infections

-TB -Bacteral Infections
-Cancer

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/1 11) Why is it so difficult to create a vaccine against HIV?

mutates at such a fast rate

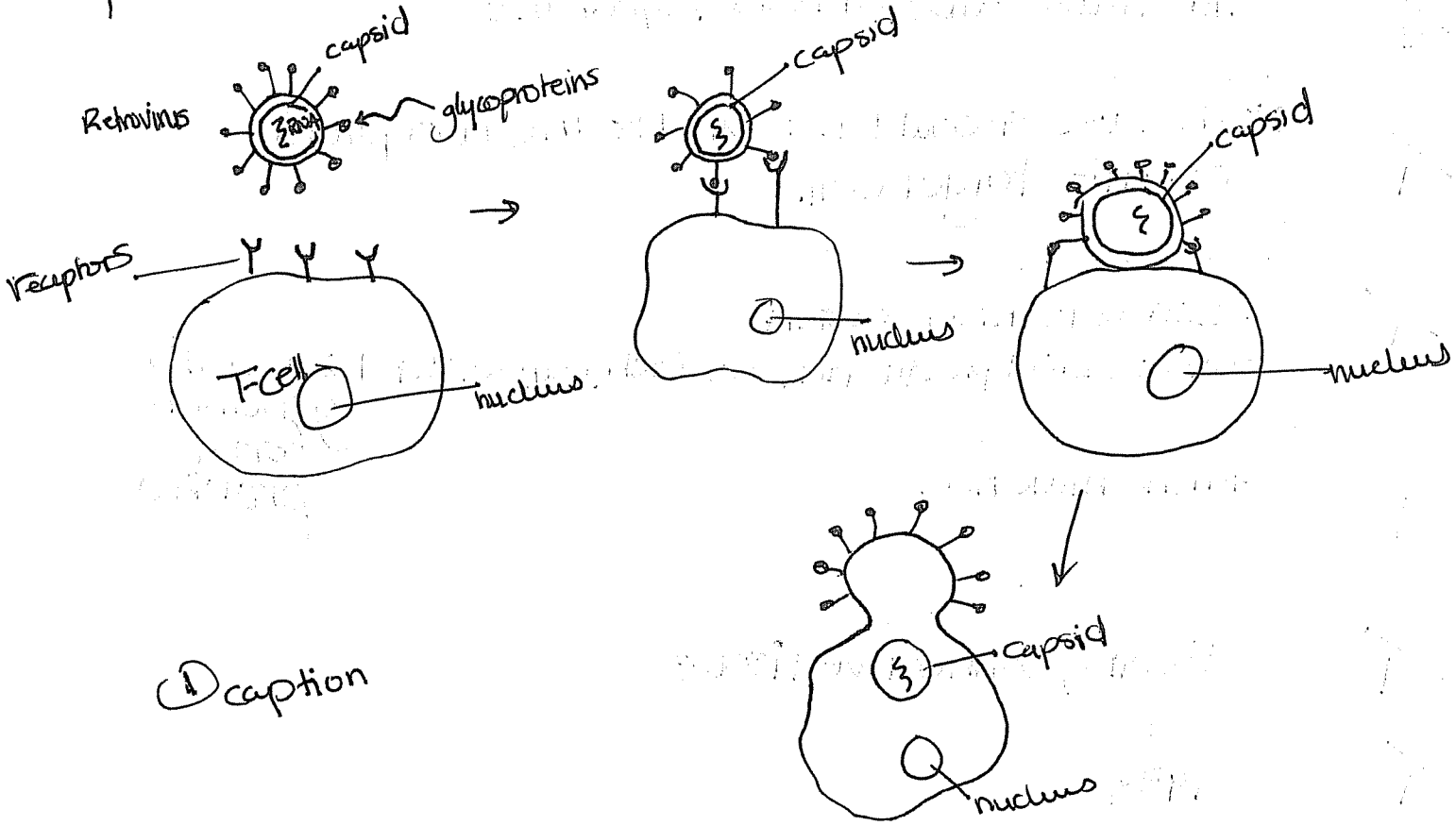
/1 12) What beneficial role could retroviruses play?

Gene therapy → genetically altered viruses insert beneficial genes into human cells.

/2 13) What are some of the risks associated with the future uses of retroviruses?

- Insert genes in wrong spot → cause cancer - may make super virus.
- maybe mutate + turn virulent again

/4 14) How does HIV gain entrance into a cell? To answer this question draw the steps described in the article and write a caption describing what is happening.



(4) caption

/2 15) What does HIV stand for? What does AIDS stand for?

HIV → Human Immunodeficiency Virus

AIDS → acquired Immunodeficiency syndrome

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