

India's Number 1 Education App

BIOLOGY

BOOKS - SUPER COMPANION 5 IN 1

MOLECULAR BASIS OF INHERITANCE

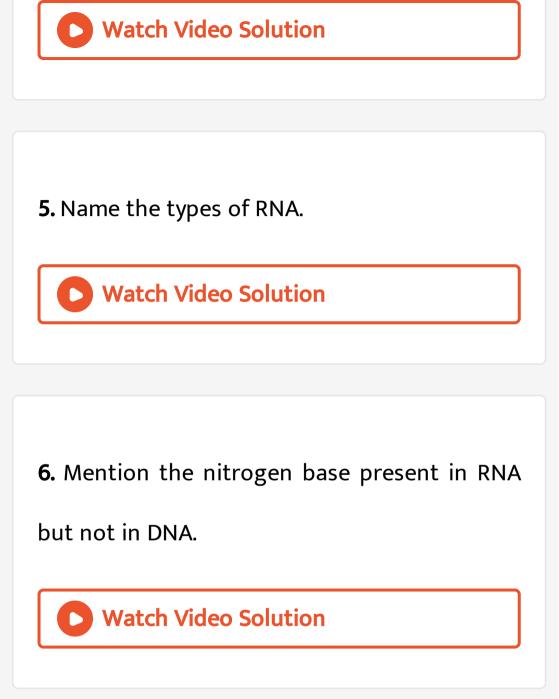
One Marks Question

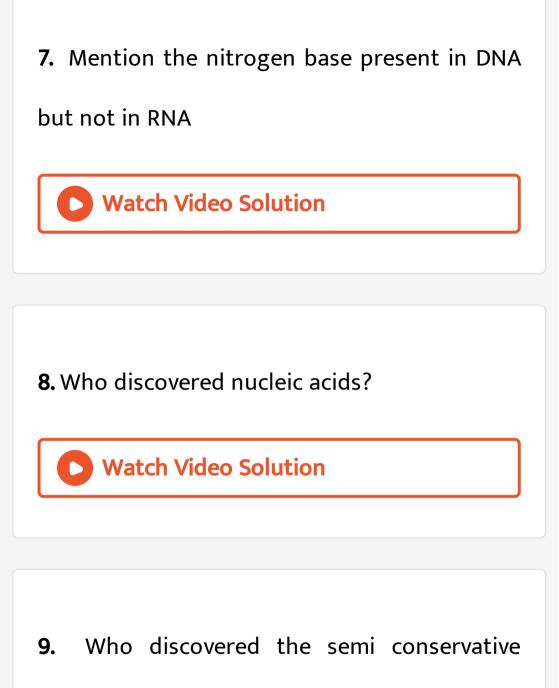
1. Define point mutation ?give an example for

point mutation?

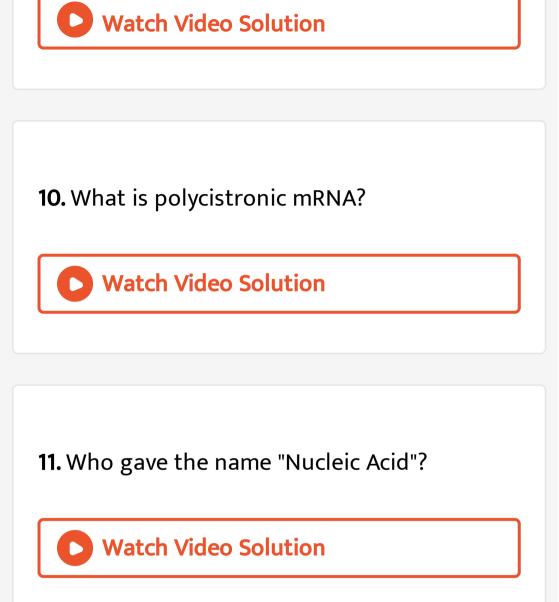
2. Name the purines of DNA?
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3. Name the pyrimidines of DNA?
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4. Who proposed the double helix model for

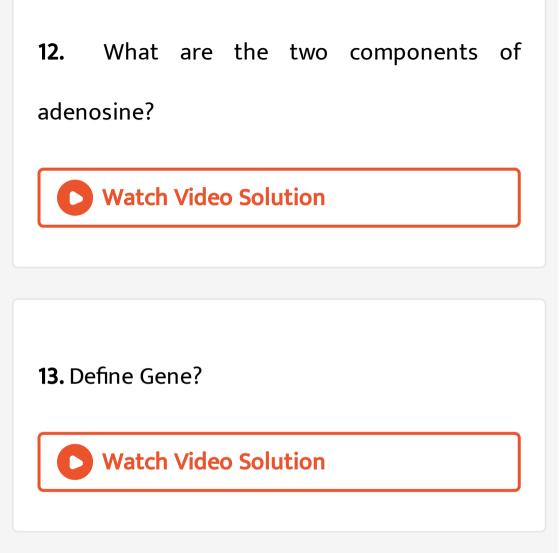
DNA?





nature of DNA replication?





14. Define Cistron?

15. Define Muton.

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16. Define recon.

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17. Define genetic code.



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19. Define transcription?

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20. Define Translation?

21. Who proposed the" Operon concept"?

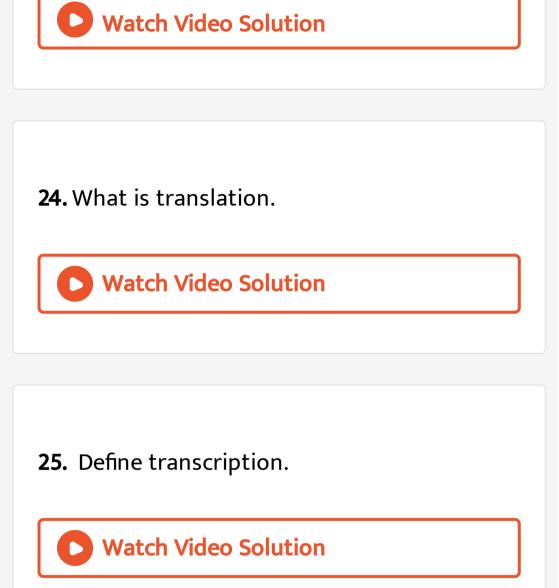
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22. Name the initiator triplet cordon of

protein synthesis?

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23. Define genetic code.



26. Explain (in one or two lines the functions

of following: (a) Promoter

(b) tRNA

(c) Exons.

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27. Give the initiation codon for protein

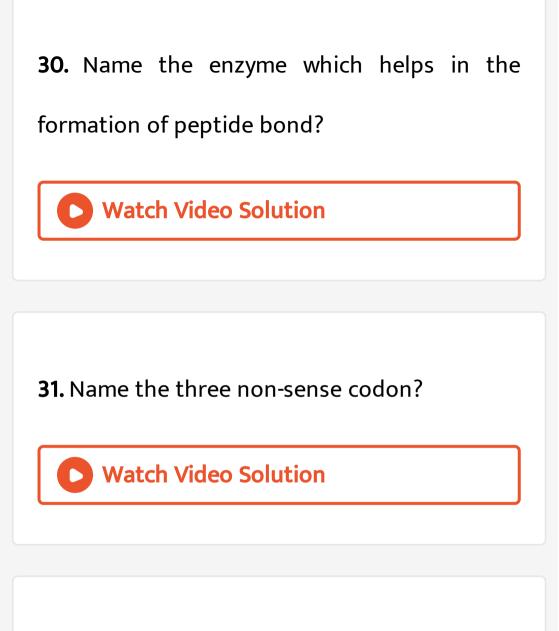
synthesis. Name the amino acid it codes for?

28. In which direction, is the new strand of

DNA synthesised during DNA replication.



29. Name the enzyme that joins the short pieces in the lagging strand during synthesis of DNA?



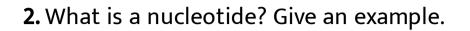
32. Mention the dual functions of AUG?

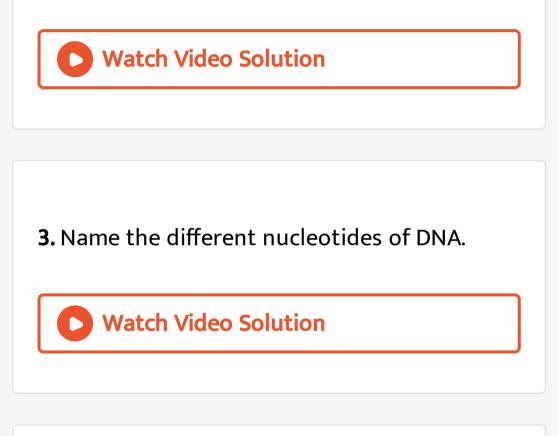
33. Heterochromatin is transcriptionally inactive when compared to euchromatin. Give reason.

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Two Marks Questions

1. What are "nonsense codons" name them.





4. Mention 4 differences between RNA and

DNA.





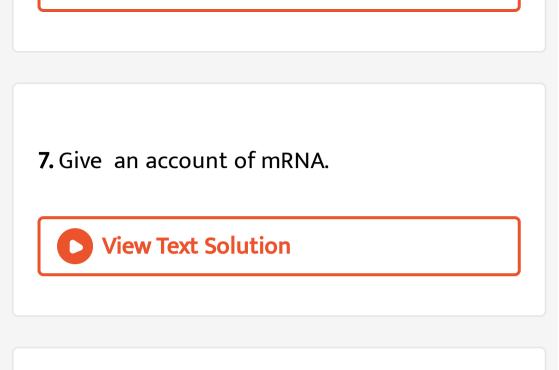
- **5.** During translation, if the codon on mRNA is AUG, then
- (i) What is the sequence of anticodon

presenlapon corresponding (RNA)?

(ii) Name the amino acid carried by this tRNA.

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6. List any four characters of genetic code?



8. Differentiate between sense and antisense

strands of DNA.

9. Mention any three applications of DNA

finger printing technique.

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10. Name the enzyme that catalyses

(a) replication of DNA and

(b) formation of RNA

11. Differentiate between Exons and Introns.



12. Group the following an nitrogenous bases

and nucleosides: Adenine, Cytidine, Thymine,

Guanosine, Uracil, and Cytosine



13. If a double stranded DNA hu 20% of cytokines, calculate the percent of dentate DNA.



14. If the sequence of one strand of DNA is written as follows: S'ATGCATGCATGCATGCATGCA TGC-3' Write down the sequence of complementary strands in 5' to 3' direction.



15. If the sequence of Coding strands in a transcription unit is written as follows:S'-ATGCATGTCA ATGC ATGC ATGC-3' Write down the sequence of mRNA.

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16. Define the terms a) Transcription b)

Translation

1. How is nucleosome formed? Draw a diagram

of the nucleosome.

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2. Explain the post transcriptional events in

eukaryotes.

1. Describe the regulation of lac-operon in

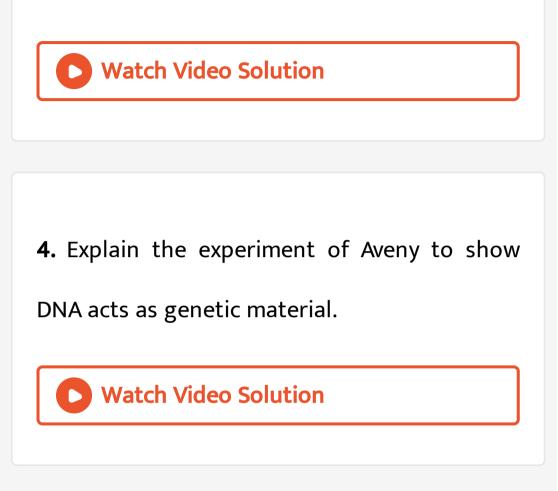
E.coli.

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2. Describe the Semiconservative method of

DNA replication.

3. Describe any five properties of genetic code.



5. Describe double helical model of DNA.

6. Briefly explain the steps involved in DNA finger printing?
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7. Enlist the goals and applications of Human

Genome project.

8. Briefly explain the process of Translation

during protein synthesis?

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9. Differentiate between continuous and

discontinuous synthesis of DNA.

10. Describe the process of transcription of

mRNA in an Eukaryotic cell.

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11. List any four salient features of human genome project.

12. Represent diagrammatically hershey-Chase

experiment. What did this experiment prove?

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13. Draw the schematic structure and explain

the different regions of a transcription unit.



14. Explain the different steps involved in translation.Watch Video Solution