

RESULT IMPROVEMENT TEST SERIES

BIOLOGY

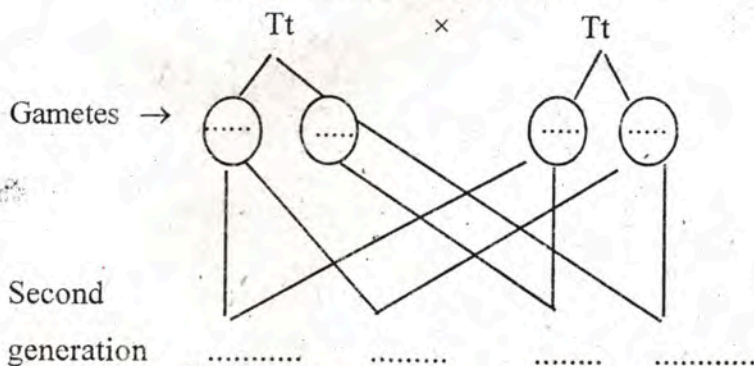
Time : 45Min.

S.S.L.C.

Marks : 20

- Pick the odd one out. Give reason. 1
 $TT Rr$, $tt RR$, $Tt Rr$, $Tt RR$
- Fill in the blanks according to the relation of the given pair. 1
 To identify the location of gene : Gene mapping
 To find out hereditary characteristics :
- Which of the following is related to Lamarck's theory? 1
 i. Over production ii. Variations in genes
 iii. Accumulation of acquired characters
- Complete the given illustration. 2

Self pollination of First Generation



- 'Since genetic engineering has many harmful effects, it can't be promoted'. Do you agree with this statement? Why? 2
- The forelimbs of Lizard, bat, whale etc. are called homologous organs. Why?
 - What inference can we reach from their comparative morphological studies? 2
- The major eras of origin of life on earth are given below.
 - Multicellular organisms
 - Organic compounds

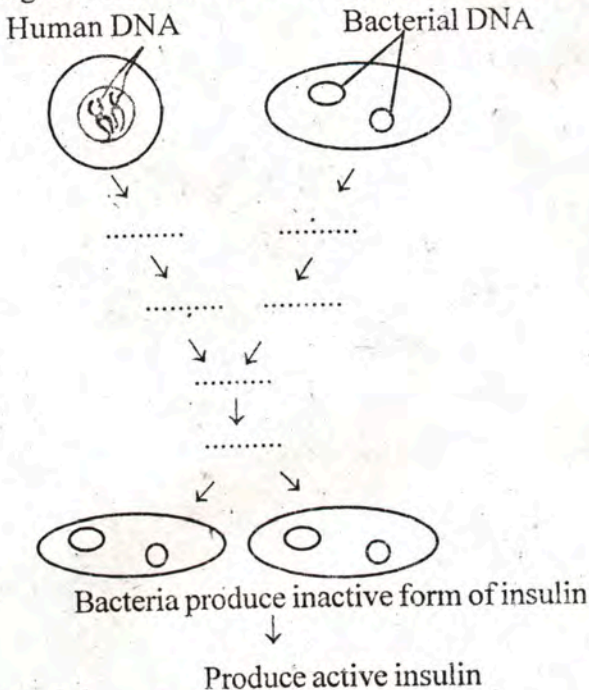
- Prokaryotes
- Chemical evolution

- Colonies of eukaryotic cells

2

Prepare a flow chart in the right order.

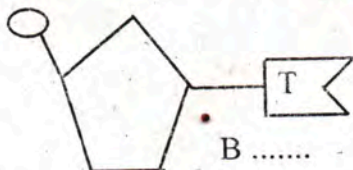
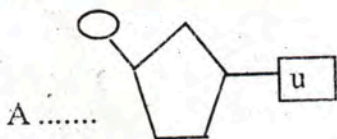
8. Various steps in the production of human insulin by genetic engineering are indicated below. Complete the illustration. 3



9. Match the column A with B and C. 3

A	B	C
Ardipithecus	Modern man	Cranial capacity 1000cm ³
Gibbon	Cercopithecoidea	Developed brain
Baboons	Human race	Cranial capacity 325cm ³
	Hominoidea	Small brain

10. Identify the nucleic acids A and B given below and write any 2 differences between them. 3



T-27**B****RESULT IMPROVEMENT TEST SERIES****BIOLOGY**

Time : 45Min.

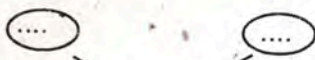
S.S.L.C.**Marks : 20**

- Pick the odd one out. Give reason.
Favourable variations, over production, acquired characters, struggle for existence 1
- Fill in the blanks according to the relation of the given pair. 1
Ligase : genetic glue
..... : Genetic scissors
- The nitrogen base absent in RNA 1
a. Adenine b. Uracil c. Thymine d. Cytosine
- Complete the given illustration. 2

Parental plants

TTRR × ttrr

Gametes →



First generation →

→

.....

Dominant characters →

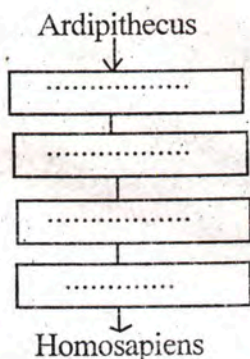
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.....,

- Gene therapy is an example of the benefits of science for human existence. How does gene therapy become useful to human beings? 2
- Fossils are the evidences that explain the history of life on earth. What are the inferences we can arrive at from fossil studies? 2
- Different stages of protein synthesis are given. Arrange in proper order. 3
 - mRNA reaches outside the nucleus
 - tRNA carry amino acids to the ribosome
 - Based on the information from mRNA, add aminoacids.
 - mRNA reaches ribosomes

- e. mRNA forms from DNA.
- f. Synthesize protein molecules.

8. Ancestors of human evolution are listed below. Complete the missed links. 2



9. Observe the given figure and answer the questions below. 3



- a) Identify the process
- b) How does it causes variation?

10. Compare the table showing the chemical evolution of life and Urey-Miller's experiment related to it. 3

	In Primitive earth	In Urey-Miller experiment
A - Inorganic Substances.		
B - Source of energy		
C - Products Synthesized.		