



SSLC PRE MODEL EXAMINATION – JANUARY 2023

BIOLOGY

(English)

Time :- 45 minutes

Total Score :- 20

Instruction

- ◆ First 15 minutes is given as cool-off time.
- ◆ Use cool-off time to read the questions and plan your answers.
- ◆ Read the questions and instructions carefully and write the answers.
- ◆ Questions for scores of 1, 2 and 3 are given options.
- ◆ The maximum score for questions from 1 to 13 will be 20
- ◆ Keep in mind, the score and time while answering the questions.

Answer any Four from questions 1 to 5. Each carries 1 score. (4x1=4)

1. Which among the following vaccines is used against Tuberculosis? 1
 ■ B.C.G ■ O.P.V ■ M.M.R ■ TT
2. Identify the word pair relation and fill the blank. 1
 Inflammation of udder : Bacteria
 Foot and mouth disease :
3. Correct mistakes if any in the underlined portion of the given statements.1
 a) The technology that identifies the location of a gene in the DNA molecule is called Gene therapy
 b) The non functional genes are called junk genes.
 c) The technology that tests the arrangements of nucleotides is called DNA profiling
4. Identify X in the given illustration.
 Fibrinogen $\xrightarrow{\text{X}}$ Fibrin fibres
5. Find the odd one out. Write the common features of others. 1
 Diphtheria, Haemophilia, Leptospirosis, Tuberculosis

Answer any Three from questions 6 to 9. Each carries 2 score. (3x2=6)

6. Analyse the given news and answer the questions.

Thief under Police custody
 Trace of Hair got from site of robbery as proof.....

- a) Name the technology that helped to find the thief. 1
- b) Write two other uses of this technology. 1
7. Certain hints related to a group of medicine are given below. Analyse them and answer the questions.
 - ◆ Extracted from microorganisms like bacteria, fungi, etc.
 - ◆ Used to destroy bacteria.
 - a) Identify this medicine. 1
 - b) Write any two side effects of these medicines. 1

8. Observe the illustration and answer the questions.



- a) Which disease does the illustration indicate? 1
 b) How does the deformity of red blood cells affect the body? 1

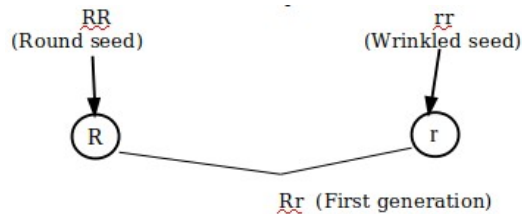
9. Observe the table related to sex determination in human and answer the questions. 2

		Female (44+XX)
Gametes		22+X
Male (44+XY)	22+X(i)....
	22+Y(ii)....

- a) Fill i and ii. 1
 b) Which type of chromosomes does the number 44 indicate? 1

Answer any Two from questions 10 to 12. Each carries 3 score. (2x3=6)

10. Observe the illustration and answer the questions

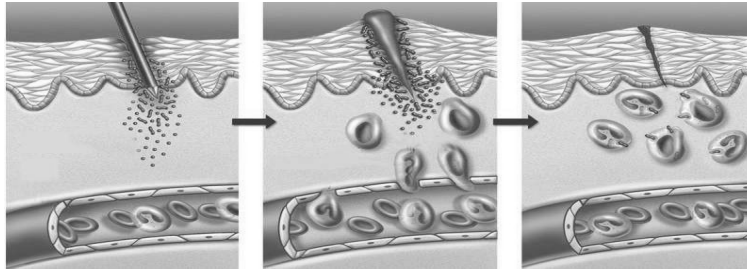


- a) Which trait is expressed in first generation? 1
 b) Illustrate the formation of second generation from this. 2

11. Rearrange columns B and C according to column A

A. Disease	B. Pathogen	C. Symptoms
Tuberculosis	Virus	Appearance of reddish scaly rashes that cause itching.
Hepatitis	Protozoa	Loss of body weight, fatigue, persistent cough.
Athlete's foot	Bacteria	Inflammation of liver.
	Fungus	Swelling in the lymph ducts

12. Observe the illustration and answer the questions.



a) Identify the process.

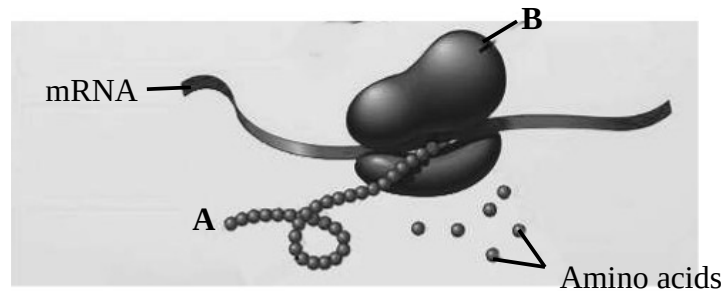
1

b) What is the role of White blood cells in this process?

2

Answer 13th question. 4 score. (1x4=4)

13. Observe the illustration related to protein synthesis and answer the questions.



a) Identify the parts labeled as A, B.

1

b) What is the role of mRNA in this process?

1

c) Name other RNAs involved in this process.

1

d) How do amino acids reach at the site of protein synthesis?

1