

# New SLOs based Guess Paper for SSC Annual-II Examination 2023

As per a by the Controller of Examinations Khyber Pakhtwonwa, the forthcoming SSC Annual-II (10th Class) Exam 2023 will be based on these SLOs-based papers.

## BIOLOGY

### CHAPTER NO. 1 GASEOUS EXCHANGE

#### KNOWLEDGE BASED QUESTIONS. 30%

1. How air is taken inside by the lungs during breathing? Explain
2. Difference between the term "respiration" and "breathing".
3. Compare the composition of inhaled and exhaled air.
4. What is the function of the cartilage present in the wall of the tracheas and bronchi?
5. What is purpose of gaseous exchange?

#### UNDERSTANDING BASED QUESTIONS. 50%

1. Why does plants not need a specialized respiratory system?
2. How are the surface area of leaves and lungs important for gaseous exchanges?
3. What is a diaphragm and what is its role in breathing.
4. What are carcinogens? Name any two carcinogens present in tobacco.
5. What is difference between stoma and lenticel?
6. Function of hair and mucus in the nose?
7. Difference between nasal cavity and nostrils.
8. What is difference between nasal cavity and nostrils?
9. What is nicotine?

#### APPLICATION BASED QUESTIONS 20%

1. Why is it advised to breathe through the nose and not through the mouth?
2. What is Passive smoking?

#### LONG QUESTION.

1. What is bronchitis? Describe its types of symptoms.
2. Describe the bad effects of smoking?

### CHAPTER NO. 11 HOMEOSTASIS

#### KNOWLEDGE BASED QUESTIONS. 30%

1. Difference between osmoregulation and thermoregulation?
2. What is guttation?
3. Difference between xerophytes and hydrophytes give example.
4. Difference between adaptations of hydrophytes and serphyteis and osmoregulation.
5. Define Lithotripsy?

#### UNDERSTANDING BASED QUESTIONS 50%

1. Briefly describe how kidneys control the composition of blood.
2. What is the role of the skin in thermoregulation?
3. Which term is used for the disease where one or both kidneys do not perform their function?
4. Difference between renal cortex and renal medulla.
5. Define pressure filtration.
6. What is meant by peritoneal dialysis?
7. What is meant by kidney transplant?
8. How does skin help in homeostasis.

#### LONG QUESTIONS.

1. Explain the structure of nephron.
2. Describe the structure of kidney in human beings.
3. What is meant by Dialysis? Explain its two methods.
4. Explain kidney transplant.

## **CHAPTER NO. 12**

## **COORDINATION AND CONTROL**

### **UNDERSTANDING BASED QUESTIONS. 50%**

1. Differentiate between the two types of coordination system.
2. What happens if islets of Langerhans secrete insulin but not glycogen?
3. What is the role of insulin and glucagon?
4. What characters are controlled by the ovarian hormones?
5. What is meant by salutatory impulses?
6. What are receptors? Give an example.
7. Differentiate between receptors and effectors.
8. What is vitreous humour?
9. What is paralysis? Write its causes.
10. What is meant by blind spot?
11. Write names of two disorders of eye.

### **APPLICATION BASED QUESTIONS. 20%**

1. What is gangue?
2. What is difference between hemispheres and cerebral cortex?
3. What is exocrine glands?
4. What do know about Goltre.
5. What do know about BGC test?

### **LONG QUESTION.**

1. Describe the structure of neuron.
2. Explain the feedback mechanism.
3. Explain the peripheral nervous system.

## **CHAPTER NO. 13**

## **SUPPORT AND MOVEMENT.**

### **KNOWLEDGE BASED QUESTIONS. 30%**

1. Difference between cartilage and bone.
2. Difference between endoskeleton and exoskeleton.
3. Difference between flexion and extension.
4. What is meant by skeletal system?
5. What is the difference between biceps and triceps muscles?

### **UNDERSTANDING BASED QUESTIONS. 50%**

1. What is elastic cartilage?
2. Define ball-and –socket joint. Give an example.
3. Define joint and hinge joint? Give example.
4. What is arthritis? How it can be treated?
5. What do you know about gout?

### **LONG QUESTIONS.**

1. What are tendons and ligaments? What function do they perform?
2. What is arthritis? Explain its types.

## **CHAPTER NO. 14**

## **REPRODUCTION.**

### **UNDERSTANDING BASED QUESTIONS. 50%**

1. Difference between internal and external fertilization. Which types of fertilization will ensure better chances of function of gametes?
2. How can vegetative methods of reproduction be used to achieve better yield?
3. What is population planning? Why is it important?
4. How does self –pollination bring more variation in plants?
5. Name the four whorls present in a flower and also describe the components of each whorl.
6. Why do seeds need water and oxygen for germination?
7. How are wind-pollinated flowers different from insect pollinated flowers?
8. Label the following diagram of a flower.

**APPLICATION BASED QUESTION. 20%**

1. What is parthenocarpy?
2. Identify different parts of flowers.
3. List some of the ripened ovaries and ovules, which are eaten in daily life.

**LONG QUESTIONS.**

1. Explain sexual reproduction in flowering plane.
2. Write down the necessary conditions for seed germination.
3. Explain reproductive system of female rabbit.

**CHAPTER NO. 15 INHERITANCE.**

**KNOWLEDGE BASED QUESTIONS. 30%**

1. Difference between genotype and phenotype.
2. Difference between natural and artificial selection.
3. Describe Mendel's law of segregation?
4. Difference between incomplete and co-dominance.
5. Describe the theory of special creation.
6. Difference between breeds and cultivars.

**UNDERSTANDING BASED QUESTION. 50%**

1. What do you mean by dominant and recessive alleles?
2. What are the homozygous and heterozygous genotypes?
3. What are traits? Give an example
4. What are transcription and translation
5. What is meant by " Punnett square"?
6. How can crossing bring variation?
7. How are DNA and protens packed to form a chromosome?
8. How is artificial selection used for the improvement of crops?

**LONG QUESTIONS.**

1. How does the DNA of chromosome work? Explain.
2. Describe Mendel's law of segregation.
3. Describe Mendel's law of independent assortment.

**CHAPTER NO. 16 MAN AND HIS ENVIRONMENT.**

**KNOWLEDGE BASED QUESTIONS. 30%**

1. What is meant by ecological pyramid?
2. What are end parasites? Give example
3. Define food chain and food web.
4. Difference between biotic and abiotic factors.
5. Define mutualism, Give an example.
6. What is acid rain?
7. How is smog formed?
8. Define renewable resources. Give an example.

**UNDERSTANDING BASED QUESTIONS 50%**

1. Define the term. Species, biosphere and ecosystem.
2. Difference between population and community.
3. Difference between food chain and food web.
4. How does deforestation affect and environment?
5. Distinguish between herbivore, carnivore, and omnivore.
6. Outline the role of bacteria in the nitrogen cycle.
7. Name any five sources of water pollution.
8. Difference between parasitism and mutualism.
9. Difference between autotrophs and heterotrophs.

### LONG QUESTION.

1. What is deforestation? Explain.
2. Explain "The 3R" principle.

### CHAPTER NO. 17

### BIOTECHNOLOGY.

#### UNDERSTANDING BASED QUESTIONS. 50%

1. What is meant by gene therapy?
2. What is meant by alcoholic fermentation?
3. Uses of glycerol.
4. Uses of formic acid.
5. Write two objectives of genetic engineering.
6. What do you mean by beta-endorphin? Give its function.
7. What is thymosin hormone? Give its function.
8. What is novel protein?

#### APPLICATION BASED QUESTIONS. 20%

1. What do you think of when you hear the word "biotechnology"?
2. What do you mean by zymology.

#### LONG QUESTIONS.

1. Define biotechnology. Describe its role in the field of medicine.
2. Write down five achievement of genetic –engineering.
3. Write down five application of fermentation.

### CHAPTER NO. 18

### PHARMACOLOGY.

#### KNOWLEDGE BASED QUESTIONS. 30%

1. What is difference between pharmacology and pharmacy?
2. Difference between medicinal drug and addictive drug.
3. Difference between analgesic and antibiotic.
4. Difference between bactericidal and bacteriostatic antibiotics.
5. Difference between antigens and antibodies.

#### UNDERSTANDING BASED QUESTIONS. 50%

1. What is vaccine?
2. What is marijuana? To which category of addictive drugs, it belongs?
3. How difference between antiseptics to antibiotics.
4. Write two used of cephalosporins.
5. Write work of Joseph Lister.
6. What are sedatives? Give an example.
7. What is meant by narrow-spectrum antibiotics?
8. What are medicinal drugs? Write its sources.

#### LONG QUESTIONS.

1. Explain drug addiction and associated problems.
2. What