HSSC-I Examination
Biology Guess Question Paper
Chapter 1,2,3 and 4.

SECTION – A

Time allowed: 25 minutes **Marks: 17**

Note: Section-A is compulsory. All parts of this section are to be answered on the question paper itself. It should be completed in the first 25 minutes and handed over to the Centre Superintendent. Deleting/overwriting is not allowed. Do not use lead pencil.

1. **Which of the following organelles is visible during interphase.**
   a) Nucleolus
   b) Nucleus
   c) Ribosomes
   d) ER

2. **Which of the following is referred as autophagosomes**
   a) Primary lysosomes
   b) Secondary lysosomes
   c) Food vacuole
   d) Contractile vacuole

3. **Centriole is made up of ___ microtubules.**
   a) 9
   b) 27
   c) 3
   d) None

4. **Which of the following does steroid synthesis**
   a) SER
   b) RER
   c) Both
   d) None

5. **Resolution of naked eye**
   a) 10micro meter
   b) 1 micro meter
   c) 250nm
   d) 0.1mm

6. **Which of the following is responsible for cyclosis:**
   a) Microtubules
   b) Microfilaments
   c) Intermediate filament
   d) None

7. **Which of the following is responsible for maintaining the integrity of lipid bilayer membrane**.
   a) High specific heat capacity
   b) High heat of vaporization
   c) Hydrophobic exclusion
   d) None

8. **Which of the following are referred to as laboratory manufactured sugars.**
   a) L sugars
   b) D sugars
   c) Both
   d) None
9. **Which of following produces no colour with iodine.**
   a) Chitin
   b) Starch
   c) Cellulose
   d) Glycogen
10. **The enantiomer of D-glucose is:**
   a) D- galactose
   b) L-galactose
   c) Both
   d) None
11. **Milk contains:**
   a) Glycolipids
   b) Glycoproteins
   c) Lipoproteins
   d) Nucleoproteins
12. **Antibiotics known as sulphonamides combat:**
   a) Viral infection
   b) Bacterial infections
   c) Fungal infections
   d) None
13. **Which of the following digests dipeptides to amino acids**
   a) Pepsin
   b) Trypsin
   c) Carboxypeptidase
   d) Erypsin
14. **Which of the following has a coenzyme activity**
   a) NAD+
   b) Ca++
   c) Both a and b
   d) None of the above
15. **The reduced cytochromes are ___ in colour**
   a) Red
   b) Blue
   c) Green
   d) Pink
16. **CO2 levels inside the leaf drops to around_____**
   a) 40ppm
   b) 50ppm
   c) 60ppm
   d) 70ppm

17. Which of the followings steps in krebs cycle generates FADH2

a) Fumarate to malate
b) Succinate to fumarate
c) succinylCoA to succinate
d) citrate to cis-aconitate

For Examiner's use only:

Total Marks:	**17**
Marks Obtained:	

Time allowed: 2.40 hours Total Marks: 60

Note: Attempt all the parts from Section 'B' and attempt all questions from Section 'C' on the separately provided answer book. Write your answers neatly and legibly.

SECTION – B (Marks 42)

Q2:Attempt All of the following questions.

i) What is effect of temperature on RuBisCO

OR

Describe polymerization of nucleotides

ii) Differentiate between oxidative phosphorylation and substrate level phosphorylation

OR

Differentiate between primary and secondary constriction

iii) What is the importance if G3P?

OR

Differentiate between SER and RER

iv) What is the mechanism of enzyme action?

OR

Describe chromatography

v) What is the importance of competitive enzyme inhibitor

OR

Differentiate between condensation and hydrolysis

vi) Differentiate between apoenzyme and holoenzyme

OR

Describe phospholipids

vii) What is importance of H-bonding

OR

Describe prostaglandins

viii) Describe the four types of structure of proteins

OR

Describe concept of gene

ix) Why phospholipids forma thin layer on the surface of an aqueous solution?

OR

Describe tRNA.

x) Describe the significance of amino acid sequence

OR

Describe the role of water in photosynthesis

xi) Describe centrifugation

OR

Describe alcoholic fermentation

xii) Why lysosomes are called suicidal bags?

OR

Describe the types of cofactors

xiii) How is chloroplast similar to bacterium?

OR

Describe the roles of conjugated molecules

xiv) Name three organelles discovered by electron microscope.

OR

Describe cell fractionation

SECTION C (Marks 26)

Q3. Explain the structure, lysosomes, functions of lysosomes.

OR

Describe Calvin cycle.

Q4. Describe the structure of cilia and flagella

OR

Describe substrate level phosphorylation

Q5. How the properties of water make it a cradle of life

OR

Describe mitochondria

Q6. Explain feedback mechanism with respect to enzymes

OR

Differentiate between prokaryotes and eukaryotes

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