Version No.				
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ROLL NUMBER						

SCIENCE FOR HOME ECONOMICS HSSC-I

(Pre-Home Economics Group)

SECTION – A (Marks 10)

Time allowed: 15 Minutes

Section – A is compulsory. All parts of this section are to be answered on this page and handed over to the Centre Superintendent. Deleting/overwriting is not allowed.

Do not use lead pencil.

حصہ اوّل لازمی ہے۔ اس کے جوابات اسی صفحہ پر دے کر نگرانِ مرکز کے حوالے کریں۔ کاٹ کر دوبارہ لکھنے کی اجازت نہیں ہے۔ لیڈ پنسل کا استعمال ممنوع ہے۔

Answer Sheet No. _____

ہر سوال کے سامنے دیے گئے، کریکولم کے مطابق درست دائرہ کو پُر کریں۔ **Invigilator Sign.** _____

Fill the relevant bubble against each question according to curriculum: **Candidate Sign.** _____

	Question	A	B	C	D	A	B	C	D
1.	Rough endoplasmic reticulum is involved in:	Lipid synthesis	Protein synthesis	Photo synthesis	Cellular respiration	○	○	○	○
2.	Which one of the following glands lies above the kidney?	Pituitary	Adrenal	Pancrease	Gonads	○	○	○	○
3.	How many moles of molecules are there in 16g O_2 (oxygen)?	01	0.5	0.1	0.05	○	○	○	○
4.	The arms of the chromosomes are called:	*Chromatin*	*Chromatids*	*Diploid*	*Centromere*	○	○	○	○
5.	Ammonia is a base because it:	Ionizes in water to give OH^- ions	Contains OH group	Can accept an electron pair	Can accept proton	○	○	○	○
6.	Which enzymes are produced by the pancreas for carbohydrate digestion?	*Pancreatic amylase*	*Trypsin*	*Pepsin*	*Lipase*	○	○	○	○
7.	Which of the following vessels carries deoxygenated blood?	Coronary artery	Pulmonary vein	Pulmonary artery	Aorta	○	○	○	○
8.	Which of the following compounds is **NOT** a saturated hydrocarbon?	H_3C-CH_3	CH_4	$CH_3-CH=CH_2$	$CH_3-CH_2-CH_3$	○	○	○	○
9.	Rutherford used _____ particles in his experiments.	*He* atoms	He^+	He^{-2}	He^{+2}	○	○	○	○
10.	The nephron, the functional unit of kidney is composed of all of the following **EXCEPT**:	Ureter	Loop of henle	Glomerulus	Bowman's capsule	○	○	○	○

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SCIENCE FOR HOME ECONOMICS HSSC–I

(Pre-Home Economics Group)

Time allowed: 2:15 Hours **Total Marks Sections B and C: 40**

SECTION – B (Marks 24)

Q. 2 Answer any EIGHT parts briefly. **(8 x 3 = 24)**

(i) What is the function of kidney? Describe briefly its structure as well.

(ii) Draw a neat and labelled diagram of motor neuron.

(iii) Briefly explain the structure and function of mitochondrion.

(iv) Briefly explain the functional group by quoting two examples.

(v) Draw electron dot and cross structures for the following:

(i) CH_4 **(ii)** H_2O

(vi) Write biological significance of meiosis.

(vii) What are the main parts of forebrain? How does it control sensory processing?

(viii) Why NH_3 acts as Bronsted Lowery base and BF_3 acts as Lewis acid?

(ix) Briefly explain red blood cells and white blood cells.

(x) Calculate the number of moles in following:

(i) 90 gm of H_2O

(ii) 40 gm of O_2

(xi) Describe briefly the structure of nucleus in animal cell.

SECTION – C (Marks 16)

Note: Attempt any TWO questions. **(2 x 8 = 16)**

Q. 3 Write a detailed note on endocrine system.

Q. 4 a. Briefly explain the mechanism of breathing in humans with the help of diagram.

b. What is Arrhenius concept of acids and bases? Explain with examples.

Q. 5 a. What are Carbohydrates? Give their classification.

b. What is the role of stomach in digestion?