BANKURA UNIVERSITY
B. Sc. Semester I (Hons) Examination 2017
NUTRITION

Subject Code : 12312   Course Code : SHNUT/102/C2 P2

Course Title : Food science and basic nutrition I (Practical)

Full Marks : 15   **Time : 2 Hours**

The figures in the right hand side margin indicate marks.

Answers <u>all</u> questions :

1. Qualitatively detect the presence of sugar in the sample supplied marked as – 'A'. Write down the chemical reactions involved in the detection.   6+4

2. Viva - Voce.   3

3. Laboratory note book.   2

BANKURA UNIVERSITY
B. Sc. Semester I (Hons) Examination 2017
NUTRITION

Subject Code : 12311   Course Code : SHNUT/101/C1 P1
Course Title : Human physiology I (Practical)

Full Marks : 15   **Time : 2 Hours**

The figures in the right hand side margin indicate marks.

Answers all questions :

1. Determine your bleeding time and clotting time by pricking your finger with a sterile needle.   5

2. Measure blood pressure of your classmate. Interprete your result. 4+1

3. Viva - Voce.   3

3. Practical note book.   2

Subject Code : 12302   Course Code : SHNUT/102/C2 T2

Course Title : Food Science and basic nutrition I

Full Marks : 25   **Time : 1 hour 15 minutes**

The figures in the right hand side margin indicate marks.

1. **Answer <u>any five</u> out of the following questions :**   **1 x 5 = 5**

    a)   Define the term micronutrient.   1

    b)   What is an epimer ? Write with example.   1

    c)   What is resistant starch?   1

    d)   What do you mean by BV of proteins?   1

    e)   What is "protein sparing action" of carbohydrates?   1

    f)   What is saponification value?   1

    g)   Distinguish between fats and oils.   1

    h)   What is nutraceutical?   1

2. **Answer <u>any two</u> of the following questions :**   **5 x 2 = 10**

    a)   What do you mean by rancidity of fats? Discuss in brief the different types of rancidity.   1+4=5

    b)   Write in brief about the nutritional significance of dietary fibres.   5

    c)   Give a brief account of the role of lipids in human health and disease.   5

    d)   How osazone is formed from glucose? Glucose & fructose form same osazone - why?   3+2

3. **Answer <u>any one</u> of the following questions :**   **10 x 1 = 10**

    a)   How can you classify dietary proteins? What is "peptide linkage"? What do you mean by zwitterion. Describe the isoelectric point of a protein.   4+1+1+4=10

    b)   Write the difference between (i) D and L - sugars (ii) Epimer and Anomer.

         How fructose can be obtained from glucose? Sucrose is a non-reducing sugar - justify the statement.   (2+2)+4+2=10

The figures in the right hand side margin indicate marks.

1. **Answer <u>any five</u> out of the following questions :**   **1 x 5 = 5**

    a) What is active transport?

    b) What do you mean by cristae?

    c) Write the name of bile salts.

    d) What is circle of Willis?

    e) State the function of Kuffer cell.

    f) Why SA node acts as a pacemaker of the heart?

    g) Name the organelle responsible for protein synthesis?

    h) Write the role of calcium ion in blood coagulation.

2. **Answer <u>any two</u> of the following questions :**   **5 x 2 = 10**

    a) 'Mitochondria is a power house of cell'- Justify the statement. Write the function of cell membrane.   2+3=5

    b) How is sodium reabsorbed in renal tubules? Mention the function of JG cells.   3+2=5

    c) Describe in brief how O_2 is transported from blood to the tissue. What is acclimatization?   4+1=5

    d) Describe the intrinsic mechanism of blood coagulation. What is bleeding time?   4+1=5

3. **Answer <u>any one</u> of the following questions :**   **10 x 1 = 10**

    a) Briefly describe the ventricular events of cardiac cycle with a suitable diagram. Mention the peculiarities of cerebral circulation. What is cardiac output?   (4+2)+3+1=10

    b) State the digestion of protein in pancreatic juice. How is fat emulsified in G.I. tract? Write the difference between liver bile and gall bladder bile.   (5+3+2)=10