WEST BENGAL STATE UNIVERSITY

B.Sc. Honours 1st Semester Examination, 2021-22

FNTACOR02T-FOOD AND NUTRITION (CC2)

PHYSIOLOGY IN NUTRITION

Time Allotted: 2 Hours   Full Marks: 40

The figures in the margin indicate full marks.
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.

Answer any *four* questions from the following   10×4 = 40

1. (a) What is hemostasis?   3+3+4

    (b) Discuss the role of Ca^{2+} in blood coagulation.

    (c) Discuss the function of plasma protein.

2. (a) What is erythropoiesis?   4+4+2

    (b) Explain the role of vitamin B12 and folic acid in erythropoiesis.

    (c) What is ABO blood grouping?

3.   What is cardiac index? Briefly describe the factors that affect cardiac output.   2+5+3
        Describe the measurement of cardiac output by applying Fick principle.

4.   What is pulse pressure? Briefly describe the factors that affect blood pressure.   2+3+(2+3)
        Discuss the composition and functions of lymph.

5.   What is residual volume? What is dead space? What is Haldane effect? Briefly   2+3+2+3
        describe the effect of 2, 3 BPG on Hb dissociation.

6.   Answer any *five* questions: 2×5 = 10

    (a) What is Arneth count?

    (b) What is the significance of biconcave shape of RBC?

    (c) What is ESR?

    (d) What is hypertension?

    (e) What is pacemaker?

    (f) What is sinus arrhythmia?

7. Explain any *two* of the following: 5×2 = 10

   Fetal hemoglobin, heart block, abnormal heart sound

8. Distinguish between: 5+5

   (i) artery and vein (ii) systemic and pulmonary circulation.

9. State the anatomical features of conducting and respiratory zones in respiratory tract. Discuss the metabolic function of lung. What is mean pressure? 4+4+2

   N.B. : *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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