

University of Calcutta

BSc. Part I General Examination 2020 (Supplementary)

Physiology (PHYG) Paper - 1

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PLEASE SEND YOUR ANSWERS/SCRIPTS AFTER SCANNING AND CONVERTING IT TO A PDF FILE TO THE FOLLOWING email: physioarpita2020@gmail.com

Answer any 5 (five questions):

(5x20 = 100)

1. a) Give the functions of the following cell organelles:
 - i. Mitochondria
 - ii. Nucleus
 - iii. Ribosome (4X3=12)b) Classify the different types of tissues mentioning body parts where they are found. (8)
2. a) Describe Kreb's cycle mentioning the enzymes required at every step. (10)
b) Define the following terms:
(i) Dialysis (ii) Ultrafiltration (iii) Osmosis (iv) Diffusion (v) Buffer (5X2=10)
3. a) Describe the process of protein digestion and absorption in the human alimentary canal. (5+5)
b) Differentiate between Kwashiorkor and Marasmus. (3 points) (6)
c) What do you mean by nitrogen balance? (4)
4. a) Describe the events of human cardiac cycle with diagram. (8+4 =12)
b) Define Cardiac output. (4)
c) State the Fick's principle. (4)
5. a) State the functions of the lymph. (5)
b) State the Functions of Haemoglobin. (5)
c) Name all the blood Coagulation factors. (10)
6. a) State the peculiarities of cerebral circulation. (10)
b) Differentiate between the structures of artery and vein. (6)
c) What are the factors affecting the blood pressure (any two)? (4)
7. a) Describe the process of carbon dioxide transport in blood. (4)
b) State and define all lung volumes and capacities. (10)
c) Describe briefly the process of urine formation. (6)

