B. Pharmacy (Ayurveda) 4th Semester Examination
Applied Physiology (N.S.)
BPA-422

Time : 3 Hours  Max. Marks : 70

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note:** Question 1 is compulsory. Attempt any five questions out of remaining six.

1. Answer the following questions : (Any Ten)

   (i) Define the terms homeostasis & haemostasis.

   (ii) Define tidal volume and residual volume.

   (iii) Define postural hypotension.

   (iv) What are the functions of RAS?

   (v) What are implications of hypothyroidism?

   (vi) Differentiate hallucinations and delusions.

   (vii) What is BMR? How is it regulated?

   (viii) Differentiate respiratory acidosis & metabolic acidosis.

   (ix) What are functions of C.S.F.?

   (x) Differentiate diffusion and osmosis. What is reverse osmosis?

   (xi) What is hypocarbia & hypercapnia?

   (xii) Define cardiogenic shock.  (10×2=20)
2. (a) What is the normal composition of blood? Give functions of monocytes & lymphocytes. (5)
   (b) Give physiological aspects of circulatory shock. (5)
3. (a) How endocrine influences regulate normal renal functions? (5)
   (b) How kidney regulate normal acid-base and electrolyte balance of body? (5)
4. (a) How different ions regulate normal cell membrane potential? (5)
   (b) Discuss transport of O₂ in blood. (5)
5. (a) Discuss different mechanisms regulating body temperature. (5)
   (b) Discuss composition of blood brain barrier. How it regulate entry of substances inside brain? (5)
6. (a) Discuss normal process of blood transfusion. What are different precautions to be observed during the process? (5)
   (b) Discuss physiological basis of schizophrenia. (5)
7. (a) Discuss physiology of muscle contraction. (5)
   (b) Discuss physiological aspects of hyper and hypofunctions of anterior pituitary. (5)