

MUTHU

04112 A

First B.H.M.S. (2015) Examination, Summer 2016  
 PHYSIOLOGY INCLUDING BIOCHEMISTRY – I

Duration : 3 Hours

Total Marks : 100

- Instructions:**
- 1) Use **blue/black** ball point pen only.
  - 2) Do not write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - 3) **All** questions are **compulsory**.
  - 4) The number to the **right** indicates **full** marks.
  - 5) Draw diagrams **wherever** necessary.
  - 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.

1. Write short answer (**any ten** out of fifteen) : (10×2=20)
- a) Define ESR and normal values of ESR.
  - b) Name the plasma proteins.
  - c) Name the types of Haemoglobin.
  - d) Name the special junctional tissues of heart.
  - e) Name the different valves of the heart.
  - f) What is stroke volume? Give its normal value.
  - g) Define hypoxia & state its types.
  - h) What is tidal volume?
  - i) Define Micturation.
  - j) State the different parts of renal nephron.
  - k) State the normal body temperature.
  - l) Name the glands of the skin.
  - m) Name the different layers of skin .
  - n) What is diffusion?
  - o) Define colloids.

04112 A



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2. Write short answer (**any four** out of six) : (4×5=20)
- a) Write the significance of Rh factor.
  - b) Leucocytes.
  - c) Heart sounds.
  - d) Waves of ECG.
  - e) Composition of lymph.
  - f) Different cells of RE system.

3. Write short answer (**any four** out of six) : (4×5=20)
- a) Nephron.
  - b) Normal constituents of urine.
  - c) Artificial respiration.
  - d) Fatigue.
  - e) Surfactant.
  - f) Functions of skin.

4. Long answer question (**any two** out of four) : (2×10=20)
- a) What are different systems of blood grouping? Describe ABO system of Blood grouping.
  - b) Describe nervous regulation of Blood pressure.
  - c) Describe Lung volumes and capacities.
  - d) Describe the role of hypothalamus in regulation of body temperature.

Long answer question (**any one** from Q. No. 5, 6 and 7) :

5. Long answer question : (1×20=20)  
Discuss Cardiac cycle in detail with the help of a neat labelled diagram.
6. Long answer question : (1×20=20)  
Describe regulation of respiration in detail.
7. Long answer question : (1×20=20)  
Describe the various parts of the nephron with the help of a neat labelled diagram.

*Define erythropoiesis and explain diff stages of it.*



04112 B

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PHYSIOLOGY INCLUDING BIOCHEMISTRY – II

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Total Marks : 100

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  - 2) **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
  - 3) **All** questions are **compulsory**.
  - 4) The number to the **right** indicates **full** marks.
  - 5) Draw diagrams **wherever** necessary.
  - 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.

1. Write short answer (**any ten** out of fifteen) : (10×2=20)
- a) Give functions of ADH.
  - b) What is tetany ?
  - c) Give function of calcitonin hormone.
  - d) Name the different movements of small intestine.
  - e) What is dysphagia ?
  - f) Give any two functions of pancreatic juice.
  - g) What are types of bile salts ?
  - h) Write two functions of testosterone.
  - i) Define menopause and what is its age ?
  - j) What is ovulation ?
  - k) Name sources of estrogen ?
  - l) What are the sources of Vit.C ?
  - m) Enumerate signs of vitamin D deficiency.
  - n) Define vitamin and name the water soluble vitamins.
  - o) Deficiency of which vitamin causes megaloblastic anaemia ?

04112 B



2. Write short answer (**any four** out of six) : (4×5=20)
- a) Aldosterone.
  - b) Diabetes Mellitus.
  - c) What is deglutition ?
  - d) Nervous phase of gastric juice secretion.
  - e) Beta oxidation.
  - f) Functions of proteins.
3. Write short answer (**any four** out of six) : (4×5=20)
- a) Beriberi.
  - b) Scurvy.
  - c) Spermatogenesis.
  - d) Functions of oxytocin.
  - e) What is balance diet ? Give functions of its contents.
  - f) Obesity.
4. Long answer question (**any two** out of four) : (2×10=20)
- a) Functions of  $T_3$  and  $T_4$ .
  - b) Describe digestion and absorption of carbohydrates in details.
  - c) Explain menstruation and Add a note on the hormones regulating.
  - d) Describe functions of hypothalamus.
- Long answer question (**any one** from Q. No. 5, 6 and 7)
5. Write hormones of anterior pituitary and describe growth hormone with functions applied and regulation of secretion. (1×20=20)
6. Describe the composition, function and mechanism of secretion of saliva with clinical applied aspects. (1×20=20)
7. Describe in detail visual pathway with various refractory errors. (1×20=20)
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