

01102 A

**First M.B.B.S. Examination, Summer 2018**  
**PHYSIOLOGY – I**

Total Duration : Section A + B + C = 2½ Hours

Section B & C Marks : 40

**SECTION – B and SECTION – C**

- 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.
  - 7) **Use** a common answerbook for Section **B** and **C**.

**SECTION – B SAQ (24 Marks)**

2. Short answer question (**any six** out of seven) : **(6×4=24)**
- a) Describe various functions of liver.
  - b) Draw a labelled diagram of respiratory membrane. Enumerate the factors affecting diffusion across the respiratory membrane.
  - c) Classify shock. Outline the physiological basis of treatment of circulatory shock.
  - d) Describe functions of pancreatic juice.
  - e) Draw and label a normal ECG trace as seen in lead II. What is the significance of the P-R interval ?
  - f) Describe regulation of thyroid hormone secretion.
  - g) Describe in brief the actions of testosterone.

**SECTION – C LAQ (16 Marks)**

3. Long answer question (**any two** out of three) : **(2×8=16)**
- a) Describe the mechanics of respiration.
  - b) Define cardiac output and cardiac index. Describe the factors that determine the cardiac output.
  - c) Describe the physiological actions of glucocorticoids.