



01103 B

First M.B.B.S. Examination, Summer 2018
BIOCHEMISTRY – II

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) Principle and uses of flame photometer.
 - b) Role of blood buffers in regulation of blood pH.
 - c) Fatty liver.
 - d) Phase II reactions of detoxification with examples.
 - e) A 38 year old woman with enlarged thyroid gland was referred to the laboratory for thyroid function tests. On investigation T3 and T4 values were found to be decreased and that of TSH was found to be increased. i) Name the condition. ii) Comment on serum cholesterol concentration in this condition. iii) Name the diseases associated with this condition in children and adults. iv) Name the commonest source of iodine in the diet.
 - f) Despite dietary control, a 55 year old man had elevated serum cholesterol. He was advised to take tablet Simvastatin and three months later his cholesterol concentration was found to be normal. i) Name the enzyme of cholesterol biosynthesis which is inhibited by Simvastatin. ii) Give the reaction catalysed by this enzyme. iii) Name the precursor of cholesterol synthesis. iv) Name two products formed from cholesterol.
 - g) Rapaport-Leubering cycle and its significance.

SECTION – C LAQ (16 Marks)

3. Long answer question (**any two** out of three) : **(2×8=16)**
- a) Enumerate the ketone bodies. Describe their formation and fate. Add a note on ketosis.
 - b) Describe the dietary sources, RDA, biochemical functions and deficiency manifestations of calcium.
 - c) Explain glycogenesis and glycogenolysis along with its regulation.