



R-3705

**First Year M. B. B. S. Examination**

November / December - 2018

**Biochemistry : Paper - II**

Time :  $2\frac{1}{2}$  Hours]

[Total Marks : 50

Instructions :

(I)

|                                                                                                                                                        |                                                 |                                                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <p>કોઈ પણ પ્રશ્નનો જવાબ લખવામાં આવે તેમજ જવાબ લખવામાં આવે તેમજ જવાબ લખવામાં આવે.</p> <p>Fill up strictly the details of signs on your answer book.</p> |                                                 | Seat No. :                                                                                          |
| <p>Name of the Examination :</p> <p><b>FIRST YEAR M. B. B. S.</b></p>                                                                                  |                                                 | <div style="border: 1px solid black; height: 100px; width: 100%;"></div> <p>Student's Signature</p> |
| <p>Name of the Subject :</p> <p><b>BIOCHEMISTRY : PAPER - 2</b></p>                                                                                    |                                                 |                                                                                                     |
| <p>Subject Code No. : <b>3 7 0 5</b></p>                                                                                                               | <p>Section No. (1, 2, ...) : <b>1&amp;2</b></p> |                                                                                                     |

**SECTION- I**

- Short note: ( 2 out of 3)** 2x4=8

  - Explain translation.
  - Formation of serotonin and melatonin from tryptophan
  - Name the active form of Vitamin. D, how it is formed in the body? Explain its metabolic functions, deficiency manifestation and RDA
- Short notes: (4 out of 6)** 4x3=12

  - Clinical application of recombinant DNA technology
  - Hyperuricemia and gout
  - Mutation
  - Restriction fragment length polymorphisms (RFLP)
  - Regulation of Gene expression
  - Urea cycle
- Answer in one or two line: (5 out of 6)** 5x1=5

  - Two characteristic of genetic code
  - Normal level of bilirubin in blood
  - Acute phase protein
  - Write name of porphyrias
  - Define gene library
  - Molecular defect in sickle cell anemia

R-3705]

1

[Contd...



**SECTION –II****4. Read the following case and answer the questions :****5x2=10**

A 41 years –old male complaining about hyper pigmented macules & papules all over the skin and severe oral pain and difficulty of mouth opening. During medical history assessment, he reported the removal of two skin lesion nine years before; one of them on facial skin(basal cell carcinoma) and another one at the chest skin(lentigo simplex) due to sensitivity of UV rays. The patient had consanguineous parents. He was instructed to keep a rigorous photo protection of the body and perform proper hygiene of the mouth.

- 1) What is the diagnosis?
- 2) How UV radiation causes damage to DNA?
- 3) What are the agents causing DNA damage.
- 4) Some amount of UV light is good for health in normal person. Explain.
- a) What is autosomal genetic disorder?

**5. Write justification : : (Sout of 7)****5x2=10**

- a) IgM is known as macroglobulin
- b) 5 fluorouracil is an anticancer drug
- c) Synergistic action of vitamin E with selenium
- d) Vitamin C causes bleeding gums
- e) Protein malnutrition causes oedema
- f) Cigarette smoking causes emphysema
- g) GABA deficiency may cause stiffman syndrome

**6. Answer in one or two line : (5 out of 6)****5x1=5**

- a) What is promoter site
- b) What is creatine and creatinine? Their clinical significance.
- c) Role of glutathione in scavenging hydrogen peroxide
- d) Protein denaturation
- e) Therapeutic uses of enzyme
- f) Comparison of competitive and non competitive enzyme inhibition

