

## 2019 and 2024 Scheme

Q.P. Code: 116001

Reg. no.: .....

**First Professional MBBS Degree Supplementary (SAY) Examinations November 2025**

**Biochemistry Paper - II**

Time: 3 Hours

Total Marks: 100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers
- Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

### 1. Multiple Choice Questions

(20x1=20)

The **MCQ** questions (Q.No. i to Q.No. xx) shall be answered **only in the OMR sheet provided at page No. 51** of the answer book (the inner portion of the back cover page (PART III)). Responses for MCQs marked in any other part/page of the answer book will not be valued. **For marking the correct responses use X mark only**

#### Questions i-v are single response type questions

- i. Which of the following hemoglobin has 2 alpha and 2 gamma globin chains  
a) Adult Hb A2                      b) Fetal Hb                      c) Hb Gower 1                      d) Hb Portland
- ii. Which of the following is **NOT** a congenital hyperbilirubinemia  
a) Breast Milk Jaundice                      c) Gilbert's Disease  
b) Crigler Najjar Syndrome                      d) Rotor Syndrome
- iii. All are causes of primary gout, **EXCEPT**  
a) Abnormal phosphoribosyl amidotransferase                      c) Abnormal PRPP Synthetase  
b) Deficiency of Glucose 6 Phosphate dehydrogenase                      d) Deficiency of HGPRTase
- iv. All the following contribute atoms to the purine ring **EXCEPT**:  
a) Glycine                      b) Respiratory CO<sub>2</sub>                      c) Carbamoyl Phosphate                      d) Glutamine
- v. Choose the drug which is **NOT** an Anticancer drug  
a) 6 Mercaptopurine                      b) Methotrexate                      c) Acyclovir                      d) Cyclophosphamide

**Question numbers vi-x are multiple response type questions. Read the statements and mark the answers appropriately.**

- vi. True about genetic code  
1) Terminator codon-GUG                      2) Non punctuated                      3) Non -Overlapping                      4) Initiator codon AUG  
a) 1, 2 & 3 are correct                      b) 1, 2 & 4 are correct                      c) 1, 3 & 4 are correct                      d) 2, 3 & 4 are correct
- vii. Tests for renal tubular function.  
1) Urine osmolality                      3) Urine microalbumin  
2) Urine Concentration Test                      4) Urine Specific gravity  
a) 1, 2 & 3 are correct                      b) 1, 2 & 4 are correct                      c) 1, 3 & 4 are correct                      d) 2, 3 & 4 are correct
- viii. Diseases associated with DNA repair mechanisms  
1) Fanconi anaemia                      2) Carcinoid Syndrome                      3) Xeroderma pigmentosum                      4) Bloom's Syndrome  
a) 1, 2 & 3 are correct                      b) 1, 2 & 4 are correct                      c) 1, 3 & 4 are correct                      d) 2, 3 & 4 are correct
- ix. Statements that are **FALSE** about Transcription in eukaryotes are  
1) Transcription initiation site is Pribnow box.  
2) Post transcriptional processing includes Poly A tailing at 3'end.  
3) RNA Polymerase type II or B is responsible for production of tRNA  
4) mRNAs are capped at the 5' terminus by 7-methylguanosine triphosphate  
a) 1 & 3                      b) 1 & 4                      c) 3 & 4                      d) 2 & 3
- x. Statements that are True about sickle cell disease are  
1) The glutamic acid is replaced by lysine in the 6<sup>th</sup> position of beta chain of HbA  
2) Pathophysiological changes include intravascular hemolysis and endothelial cell dysfunction  
3) HbS affords production against plasmodium falciparum  
4) Electrophoresis at alkaline pH shows a slower band than HbA  
a) 1, 2 & 3 are correct                      b) 1, 3 & 4 are correct                      c) 2, 3 & 4 are correct                      d) 1, 2 & 4 are correct

**For Questions xi-xv there are two statements marked as - Assertion (A) and Reason (R). Mark your answer as per the options provided**

- xi. **Assertion:** Salvage pathway is of special importance in Liver and Kidney  
**Reason:** Salvage pathway uses more energy than de novo synthesis  
a) Both A & R are correct but R is not the reason for A                      c) A correct R incorrect  
b) Both A & R are incorrect                      d) Both A & R are correct R is reason for A
- xii. **Assertion:** Hyperuricemia is seen in malignant tumours  
**Reason:** Enhanced turn over of nucleic acid  
a) Both A & R are correct but R is not the reason for A                      c) A correct R incorrect  
b) Both A & R are incorrect                      d) Both A & R are correct R is reason for A

(PTO)

