



# RO-1546

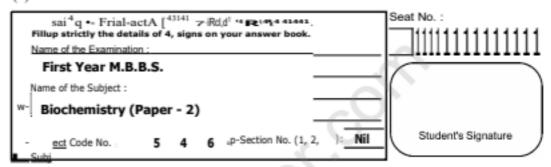
## First Year M.B.B.S. Examination June — 2010

# Biochemistry (Paper - II)

Time: 2 Hours] [Total Marks: 50

### Instructions

(1)



- Figures to the right indicate full marks.
- Draw diagrams where appropriate.
- Discuss biochemical aspects of diabetes mellitus.

OR

- Discuss replication, what are the various mechanisms for repair of DNA.
- 2 Read the following case and answer the questions: 10

A 45 year old male who is suffering from diabetes mellitus (DM) visited to OPD for routine check up. His fasting glucose level was 99 mg/d1, PP2BS was 130 mg/d1. Total cholesterol was 280 mg/d1 (Normal range : 200-240 mg/di) Triglycerides was 198 mg/d1 (normal range 130-160 mg/c11) HbA ic was 7.5% (normal range 3.5-5.5%). Physician prescribed statins and other medicines to control plasma glucose level he also advised him regular exercise, regular eye check up.

- (a) How statins help to treat hyperlipidemia?
- (b) What is the significance of HbA<sub>1c</sub>?
- (c) Why diabetics are more prone to develop cataract?
- (d) Why uncontrolled diabetes mellitus leads to ketosis?
- (e) Why HDL cholesterol is "Good Cholesterol".

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3	Write short note on : (any three)		9
	(a) Phenyl ketonuria		
	(b)	Transamination	
	(c)	Characteristics of genetic codes	
	(d)	Carnitine transporter	
	(e)	Galactosemia.	
4	Write notes on : (any two)		10
	(a)	Glycogenolysis	
	(b)	PCR	
	(c)	Post translation modification	
	(d)	Urea cycle.	
5	Comment on / justify in 2-3 sentences : (any five)		10
	(a)	Sodium fluoride used as preservative while collecting	
		blood for glucose estimation.	
	(b)	Replication is always semi conservative.	
	(c)	Ciprofloxacin inhibit replication of bacterial DNA.	
	(d)	Hemolysed serum is not suitable for serum	
		potassium estimation.	
	(e)	Muscle glycogen does not contribute in plasma	
		glucose level.	

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(f) Human being can not digest cellulose.