(V(3rd Sm.)-Biochemistry-G/SEC-A-2/CBCS)

2×10

2021

BIOCHEMISTRY — GENERAL

Paper : SEC-A-2

(Clinical Biochemistry)

Full Marks : 80

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer *any ten* questions :

(a) What is the normal level of total cholesterol?

- (b) Highest content of triglycerides is seen in which lipoproteins?
- (c) Blood urea level is markedly increased in which condition?
- (d) Why HDL is referred to as good cholesterol?
- (e) What is latent jaundice?
- (f) Bilirubin in serum is estimated by which test?
- (g) What is the function of chylomicron?
- (h) What is 'bad cholesterol'? Why is it called so?
- (i) When does creatine kinase (CK) level increased?
- (j) What are the enzymes useful in diagnosing liver pathology?
- (k) Name two bile salts.
- (l) What is the significance of estimation of glycated hemoglobin in blood?
- (m) What are the important risk factors of coronary artery diseases?
- (n) What is the normal creatinine level in blood?
- 2. Answer any four questions :
 - (a) Name the enzymes that are used in the diagnosis of myocardial infarction. Explain the pattern of rise of these enzymes, following an acute infarction.
 - (b) What is the normal fasting blood glucose level? How is it regulated? 2+3
 - (c) Discuss the biochemical alterations seen in blood and urine in different types of jaundice. 3+2
 - (d) Classify lipoproteins. Explain their biological significance.

Please Turn Over

2+3

	(e)	Give	e the normal blood level of the following :	5
		(i)	glucose	
		(ii)	creatinine	
		(iii)	urea	
		(iv)	triglycerides	
		(v)	SGPT.	
	(f)	(i)	Write down the principle for determination of serum creatinine.	
		(ii)	Differentiate between serum and plasma.	3+2
3.	Ans	swer	any four questions :	
	(a)	(i)	What is renal glycosuria?	
		(ii)	Measurement of glycated Hb is considered as the best index of long-term control of glucose level. Explain.	f blood
		(iii)	What is the advantage of CK estimation?	2+4+4
	(b)	(i)	Bilirubin in serum is estimated by which test?	
		(ii)	Differentiate between Type I and Type II diabetes mellitus.	
		(iii)	What is the importance of creatinine clearance test?	2+4+4
	(c)	(i)	Why 70% alcohol is used during blood sample collection?	
		(ii)	Describe the basic steps for drawing a blood specimen.	
		(iii)	Describe the terms precision and accuracy for describing biochemical result in lab analysis.	oratory 2+4+4
	(d)	(i)	Define the term automation with respect to clinical biochemistry.	
		(ii)	Why automation is required in pathological clinics?	
		(iii)	How the process automation has been executed in clinical biochemical laboratory?	3+2+5
	(e)	(i)	Name the hyperglycemic hormones.	
		(ii)	Give an account of the biochemical tests which will help in differentiating the types of ja	undice.
		(iii)	What is diabetic ketoacidosis?	4+4+2
	(f)	(i)	Describe the principle for estimation of blood glucose by glucose oxidase peroxidase n	nethod.
		(ii)	How blood sample is collected during estimation of blood glucose?	
		(iii)	Differentiate between hyperglycemia and hypoglycemia.	5+3+2