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[MBBS 0825] AUGUST 2025 Sub. Code: 7056

M.B.B.S. DEGREE EXAMINATION

(For the candidates admitted from the Academic Year 2024-2025)

FIRST PROFESSIONAL – (CBME) PAPER II – BIOCHEMISTRY

]	PAPER II – BIO	OCHEMISTRY	
77.4	20.350	Q.P. Code	: 527056	25.1
Time	: 20 Minutes	A A 11	0	Maximum: 20 Marks
	Charle 4harran	Answer All	-	1
	Shade the correct	et answer with E	Black or Blue ini	k ball point pen
		<u>SET</u>	<u>- A</u>	
IV. M	ultiple Choice Quest	tions:		$(20 \times 1 = 20)$
1.	Which of the followin	g is hydroxyl amir	noacid	
	A) Threonine	B) Histidine	C) Leucine	D) Isoleucine
2.	All of the following re	eagents are used in	sequencing of pro	teins EXCEPT
	A) Dansyl chloride	· ·	3) Phenylhydrazine	
	C) Phenylisothiocyan	ate D) Cyanogen brom	de
2	Recombinant Human	Insulin diffor from	hovino Inculin by	
3.	A) Biological activity		Aminoacid sequen	
	C) Position of disulfice		Side chains	
	c) Tosition of disum	ic bolids D)	Side chams	
4.	A 45 year old softwa	re engineer vegeta	arian by diet goes	for master health checkup,
	report shows elevated	homocysteine le	vels. Hyperhomoc	ysteinemia can occur in all
	the following Vitamin	deficiency EXCE	PT	
	A) Pyridoxine	B) Cyanocobalam	in C) Pantothe	nic acid D) Folic acid
		, cill		
5.	All are true about Lysi			
	A) An essential amino		B) Ketogenic	
	C) Deficient in Cerea	ls	D) Deficient in Pu	ilses
6.	All of the following m	etabolic disorders	are associated wit	h mental retardation EXCEPT
	A) Phenylketonuria		B) Von Gierke'	s Disease
	C) Maple syrup urine	disease	D) Morteaux La	my Syndrome
7	An adult mala in 4 th d	anda mussantad vy	ith savara law basi	z aaha . Qaahranasis is saan in

- 7. An adult male in 4th decade presented with severe low back ache. Oochronosis is seen in
 - A) Tyrosinemia
- B) Carcinoid syndrome
- C) Albinism
- D) Alkaptonuria

- 8. Gastric acid secretion is stimulated by all EXCEPT
 - A) Gastrin
- B) Pepsin
- C) Vagal stimulation
- D) Histamine

- 9. Proteinuria is not a feature in
 - A) Diabetes insipidus

- B) Multiple myeloma
- C) Acute Glomerulonephritis D) Nephrotic syndrome

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10.	Renal stones may contain any of the following constituents EXCEPT A) Uric acid B) Calcium C) Cholesterol D) Cystine
11.	A 50 year old male presented with Chronic Renal Failure and investigated for the same. Which ion in serum is decreased in Chronic Renal Failure? A) Potassium B) Phosphate C) Hydrogen D) Bicarbonate
12.	Haptoglobin is a carrier of A) Free iron B) Free heme C) Free hemoglobin D) Free bilirubin
13.	Albumin is a transporter of the following compounds in plasma EXCEPT A) Non esterified fatty acids B) Bilirubin C) Calcium D) Iron
14.	Pick out the mismatched pair A) Albumin and bilirubin B) Hemopexin and heme C) Transthyretin and Thyroxine D) Transcortin and estrogen
15.	Which of the following enzyme is involved in Phase II detoxification? A) Cytochrome p450 B) N acetyl transferase C) UDP glucronyl transferase D) Alcohol dehydrogenase
16.	A 65 year old male present with features of hyperuricemia secondary to a systemic disease. Secondary hyperuricemia is seen in all the following conditions EXCEPT A) Leukemia B) Psoriasis C) Cytotoxic therapy D) Hepatitis
17.	Which enzyme protects DNA from aging?
	A) DNA polymeraseB) TopoisomeraseC) DeoxyribonucleaseD) Telomerase
18.	Denaturation of DNA is accompanied by all changes EXCEPT A) Increase in viscosity B) Hyperchromicity C) Unstacking of bases D) Destabilisation of DNA helix
19.	A baby born to a carrier mother exhibits symptoms of the disease. All of the following are inherited through X chromosome, EXCEPT A) Sickle cell anaemia B) Hemophilia C) Glucose -6-Phosphate dehydrogenase deficiency D) Duchenne type muscular dystrophy
20.	When GAC is replaced by GAA, the result is

B) Deletion mutation

D) Conservative mutation

A) Silent mutation

C) Frameshift mutation



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[MBBS 0825] **AUGUST 2025**

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M.B.B.S. DEGREE EXAMINATION (For the candidates admitted from the Academic Year 2024-2025)

FIRST PROFESSIONAL – (CBME)

	PAPER II – BIOCHEMISTRY
m· /	Q.P. Code: 527056
Time: 2	20 Minutes Maximum : 20 Marks
	Answer All Questions Shade the correct enswer with Block or Blue ink hall point non
	Shade the correct answer with Black or Blue ink ball point pen
	<u>SET - B</u>
IV. Mu	Itiple Choice Questions: $(20 \times 1 = 20)$
1. I	Recombinant Human Insulin differ from bovine Insulin by
1	A) Biological activity B) Aminoacid sequence
(C) Position of disulfide bonds D) Side chains
2	A 45 year ald software ancinger vacatories by diet case for master health absolute
	A 45 year old software engineer vegetarian by diet goes for master health checkup, report shows elevated homocysteine levels. Hyperhomocysteinemia can occur in all
	the following Vitamin deficiency EXCEPT
	A) Pyridoxine B) Cyanocobalamin C) Pantothenic acid D) Folic acid
1	A) Fyridoxine B) Cyanocobaranini C) Fantotnenic acid D) Polic acid
3. 4	All are true about Lysine EXCEPT
	A) An essential aminoacid B) Ketogenic
(C) Deficient in Cereals D) Deficient in Pulses
4. 4	All of the following metabolic disorders are associated with mental retardation EXCEPT
	A) Phenylketonuria B) Von Gierke's Disease
(C) Maple syrup urine disease D) Morteaux Lamy Syndrome
5. 4	An adult male in 4 th decade presented with severe low back ache. Oochronosis is seen in
1	A) Tyrosinemia B) Carcinoid syndrome C) Albinism D) Alkaptonuria
	Gastric acid secretion is stimulated by all EXCEPT
1	A) Gastrin B) Pepsin C) Vagal stimulation D) Histamine
7. I	Proteinuria is not a feature in
1	A) Diabetes insipidus B) Multiple myeloma
	C) Acute Glomerulonephritis D) Nephrotic syndrome
8. I	Renal stones may contain any of the following constituents EXCEPT
	A) Uric acid B) Calcium C) Cholesterol D) Cystine
1	2, Silverior Di Circinio Ci Circinio Di Cintino

D) Bicarbonate

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same. Which ion in serum is decreased in Chronic Renal Failure?

B) Phosphate

A) Potassium

9. A 50 year old male presented with Chronic Renal Failure and investigated for the

C) Hydrogen

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10.	O. Haptoglobin is a carrier of A) Free iron B) Free heme	C) Free hemoglobin	D) Free bilirubin
		,	,
11.	1. Albumin is a transporter of the following	= =	
	A) Non esterified fatty acids B) Bil	irubin C) Calciu	um D) Iron
12.	2. Pick out the mismatched pair		
	A) Albumin and bilirubin	B) Hemopexin and hem	e
	C) Transthyretin and Thyroxine	D) Transcortin and estre	ogen
13.	3. Which of the following enzyme is involv	ved in Phase II detoxifica	ntion?
	A) Cytochrome p450 B	3) N acetyl transferase	
	C) UDP glucronyl transferase D) Alcohol dehydrogenas	e
14.	4. A 65 year old male present with featur	res of hyperuricemia sec	condary to a systemic
	disease. Secondary hyperuricemia is seen	n in all the following con	nditions EXCEPT
	A) Leukemia B) Psoriasis	C) Cytotoxic therapy	D) Hepatitis
15.	5. Which enzyme protects DNA from aging	g?	
	A) DNA polymerase B) T	Copoisomerase	
	C) Deoxyribonuclease D) T	Celomerase	
16.	6. Denaturation of DNA is accompanied by	all changes EXCEPT	
	A) Increase in viscosity	B) Hyperchromicity	
	C) Unstacking of bases	D) Destabilisation of D	NA helix
		()	
17.	7. A baby born to a carrier mother exh	ibits symptoms of the	disease. All of the
	following are inherited through X chrom	osome, EXCEPT	
	A) Sickle cell anaemia		
	B) Hemophilia		
	C) Glucose -6-Phosphate dehydrogenaso	e deficiency	
	D) Duchenne type muscular dystrophy		
18.	8. When GAC is replaced by GAA, the resi	ult is	
	A) Silent mutation B	3) Deletion mutation	
	C) Frameshift mutation D) Conservative mutation	
19.	9. Which of the following is hydroxyl amin	noacid	
	A) Threonine B) Histidine	C) Leucine	D) Isoleucine
20.	20. All of the following reagents are used in	sequencing of proteins I	EXCEPT
) Phenylhydrazine	
) Cyanogen bromide	
	•		
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AUGUST 2025

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FIRST PROFESSIONAL – (CBME) PAPER II – BIOCHEMISTRY

Q.P. Code: 527056

Time: 20 Minutes	Maximum : 20 Marks
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111100	Answer All Questions					
	Shade the correct answer with Black or Blue ink ball point pen					
	<u>SET - C</u>					
IV. M	ultiple Choice Questions: $(20 \times 1 = 20)$					
1.	All of the following metabolic disorders are associated with mental retardation EXCEPT A) Phenylketonuria B) Von Gierke's Disease C) Maple syrup urine disease D) Morteaux Lamy Syndrome					
2.	An adult male in 4 th decade presented with severe low back ache. Oochronosis is seen in A) Tyrosinemia B) Carcinoid syndrome C) Albinism D) Alkaptonuria					
3.	Gastric acid secretion is stimulated by all EXCEPT A) Gastrin B) Pepsin C) Vagal stimulation D) Histamine					
4.	Proteinuria is not a feature in A) Diabetes insipidus B) Multiple myeloma C) Acute Glomerulonephritis D) Nephrotic syndrome					
5.	Renal stones may contain any of the following constituents EXCEPT A) Uric acid B) Calcium C) Cholesterol D) Cystine					
6.	A 50 year old male presented with Chronic Renal Failure and investigated for the same. Which ion in serum is decreased in Chronic Renal Failure? A) Potassium B) Phosphate C) Hydrogen D) Bicarbonate					
7.	Haptoglobin is a carrier of A) Free iron B) Free heme C) Free hemoglobin D) Free bilirubin					
8.	Albumin is a transporter of the following compounds in plasma EXCEPT A) Non esterified fatty acids B) Bilirubin C) Calcium D) Iron					
9.	Pick out the mismatched pair A) Albumin and bilirubin B) Hemopexin and heme C) Transthyretin and Thyroxine D) Transcortin and estrogen					
10.	Which of the following enzyme is involved in Phase II detoxification?					

B) N acetyl transferase

D) Alcohol dehydrogenase

... 2 ...

A) Cytochrome p450

C) UDP glucronyl transferase



11.	 A 65 year old male present with feat disease. Secondary hyperuricemia is se 	* *	•
	A) Leukemia B) Psoriasis	C) Cytotoxic therapy	
12.	2. Which enzyme protects DNA from agi	ng?	
	A) DNA polymerase B)	Topoisomerase	
	C) Deoxyribonuclease D)	Telomerase	
13.	3. Denaturation of DNA is accompanied	by all changes EXCEPT	
	A) Increase in viscosity	B) Hyperchromicity	
	C) Unstacking of bases	D) Destabilisation of DI	NA helix
14.	4. A baby born to a carrier mother exfollowing are inherited through X chroA) Sickle cell anaemiaB) Hemophilia	• •	disease. All of the
	C) Glucose -6-Phosphate dehydrogena	ase deficiency	
	D) Duchenne type muscular dystrophy		
15.	5. When GAC is replaced by GAA, the re	esult is	
	A) Silent mutation	B) Deletion mutation	
	C) Frameshift mutation	D) Conservative mutation	
		~	
16.	6. Which of the following is hydroxyl am	()	
	A) Threonine B) Histidine	C) Leucine	D) Isoleucine
17.	7. All of the following reagents are used	in sequencing of proteins E	XCEPT
	A) Dansyl chloride	B) Phenylhydrazine	
	C) Phenylisothiocyanate	D) Cyanogen bromide	
18.	8. Recombinant Human Insulin differ fro	m bovine Insulin by	
) Aminoacid sequence	
	. 13) Side chains	
19.	9. A 45 year old software engineer vegoreport shows elevated homocysteine the following Vitamin deficiency EXC	levels. Hyperhomocysteine	-
	A) Pyridoxine B) Cyanocobalar	min C) Pantothenic acid	D) Folic acid
20.	0. All are true about Lysine EXCEPT		
	A) An essential aminoacid	B) Ketogenic	
	C) Deficient in Cereals	D) Deficient in Pulses	
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Time: 20 Minutes		Maximum : 20 Marks

Time	: 20 Minutes		Maxi	mum: 20 Marks
	Answe	r All Questions		
	Shade the correct answer w	ith Black or Blue in	ık ball po	oint pen
		<u>SET - D</u>		
IV. M	fultiple Choice Questions:			$(20 \times 1 = 20)$
1.	Haptoglobin is a carrier of			
	A) Free iron B) Free heme	e C) Free hemoglol	bin D) Free bilirubin
2.	Albumin is a transporter of the foll	owing compounds in p	olasma EX	ССЕРТ
	A) Non esterified fatty acids	B) Bilirubin C	C) Calcium	n D) Iron
3.	Pick out the mismatched pair			
	A) Albumin and bilirubin	B) Hemopexin a	nd heme	
	C) Transthyretin and Thyroxine	D) Transcortin a	ınd estrog	en
4.	Which of the following enzyme is	involved in Phase II de	etoxification	on?
	A) Cytochrome p450	B) N acetyl transfe		o <u></u>
	C) UDP glucronyl transferase	D) Alcohol dehyd		
		alle		
5.	A 65 year old male present with features of hyperuricemia secondary to a systemic			
	disease. Secondary hyperuricemia		_	
	A) Leukemia B) Psoriasis	C) Cytotoxic the	згару	D) Hepatitis
6.	Which enzyme protects DNA from	aging?		
	A) DNA polymerase	B) Topoisomerase		
	C) Deoxyribonuclease	D) Telomerase		
7.	Denaturation of DNA is accompanied by all changes EXCEPT			
	A) Increase in viscosity	B) Hyperchrom	nicity	
	C) Unstacking of bases	D) Destabilisati	on of DN	A helix
8.	A baby born to a carrier mothe	r exhibits symptoms	of the di	isease. All of the
	following are inherited through X chromosome, EXCEPT			
	A) Sickle cell anaemia			
	B) Hemophilia			
	C) Glucose -6-Phosphate dehydro	•		
	D) Duchenne type muscular dystro	ophy		

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9.	When GAC is replaced by GAA, the r	esult is	
	A) Silent mutation	B) Deletion mutation	
	C) Frameshift mutation	D) Conservative mutation	
	-,		
10	Which of the following is hydroxyl an	ninoacid	
10.	A) Threonine B) Histidine	C) Leucine	D) Isoleucine
	A) Theoline B) Thistidine	C) Leucine	D) Isoleuchie
11	All of the following researts one year	in accounting of anothing E	VCEDT
11.	All of the following reagents are used		ACEPI
	A) Dansyl chloride	B) Phenylhydrazine	
	C) Phenylisothiocyanate	D) Cyanogen bromide	
12.	Recombinant Human Insulin differ fro	om bovine Insulin by	
	A) Biological activity B) Aminoacid sequence	
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13.	A 45 year old software engineer veg	etarian by diet goes for ma	ster health checkup,
	report shows elevated homocysteine	levels. Hyperhomocysteiner	mia can occur in all
	the following Vitamin deficiency EXC	• •	
	A) Pyridoxine B) Cyanocobala		D) Folic acid
	Ti) I yildoxiile	dinin C) i untomeme uelo	b) I one were
1/1	All are true about Lysine EXCEPT		
14.		D) Vatagaria	
	A) An essential aminoacid	B) Ketogenic	
	C) Deficient in Cereals	D) Deficient in Pulses	
15.	All of the following metabolic disorde	ers are associated with menta	al retardation EXCEPT
	A) Phenylketonuria	B) Von Gierke's Diseas	se
	C) Maple syrup urine disease	D) Morteaux Lamy Syn	drome
16	An adult male in 4 th decade presented	with severe low back ache	Oochronosis is seen in
10.	A) Tyrosinemia B) Carcinoid s		D) Alkaptonuria
	A) Tyrosineilia B) Carcinoid s	Syndrome C) Albinishi	D) Alkaptoliulia
17		11 EV.CEDT	
1/.	Gastric acid secretion is stimulated by		•
	A) Gastrin B) Pepsin C)	Vagal stimulation D) Hi	stamine
18.	Proteinuria is not a feature in		
	A) Diabetes insipidus	B) Multiple myelom	ıa
	C) Acute Glomerulonephritis	D) Nephrotic syndro	ome
19.	Renal stones may contain any of the fo	ollowing constituents EXCI	EPT
	A) Uric acid B) Calcium	C) Cholesterol D) Cy	
	,	, = / = /	
20	A 50 year old male presented with	Chronic Renal Failure and	investigated for the
_0.	same. Which ion in serum is decreased		in conguer for the
			arbanata
	A) Potassium B) Phosphate	C) Hydrogen D) Bic	arbonate
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