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AUGUST 2025 [MBBS 0825] Sub. Code: 7055

M.B.B.S. DEGREE EXAMINATION

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

FIRST PROFESSIONAL – (CBME) PAPER I – BIOCHEMISTRY

O.P. Code: 527055

Time: 20 Minutes Maximum: 20 Marks

Answer All Questions

Shade the correct answer with Black or Blue ink ball point pen

SET - A

IV. Multiple Choice Questions:

 $(20 \times 1 = 20)$

- 1. All the following activities are taking place inside mitochondria EXCEPT
 - A) Tricarboxylic acid cycle
- B) Electro Transport Chain
- C) Beta Oxidation of Fatty acid
- D) Denovo fatty acid synthesis
- 2. A 2 year old baby presented with delayed milestones. Which inborn error in carbohydrate metabolism is Mental retardation a feature?
 - A) EssentialPentosuria
- B) Galactosemia
- C) Carnitine deficiency
- D) Glucose -6- Phosphate dehydrogenase deficiency
- 3. A newborn baby present with recurrent hypoglycemia. All are the reasons for hypoglycemia in Impaired Beta Oxidation EXCEPT
 - A) Low Acetyl CoA
- B) Low NADH
- C) High Insulin
- D) Low ATP

- 4. Lipotropic factors are substances that
 - A) Prevents Fatty liver
- B) Prevent cholesterol deposition in Liver
- C) Prevent atherosclerosis
- D) Induce Fatty liver
- 5. Sources of NADPH include all EXCEPT
 - A) Glucose -6- Phosphate dehydrogenase B) 6-phosphogluconate dehydrogenase
 - C) Cytosolic Malate dehydrogenase
- D) CytosolicIsocitrate dehydrogenase
- 6. In a competitive inhibition
 - A) Inhibitor has structural similarity to substrate
 - B) Km is decreased
 - C) Vmax is decreased
 - D) Reaction rate is independent of substrate concentration
- 7. Unsaturation of fatty acids is taking place in which of the following sub cellular fraction?
 - A) Mitochondria
- B) Endoplasmic reticulum C) Peroxisome
- D) Lysosome
- 8. Which of the following dietary modifications have minimum hypocholesterolemic action?
- A) Inclusion of fruits and vegetables
- B) Dietary cholesterol <300mg/day
- C) Intake of whole wheat bran
- D) Consuming fish as the only non-veg food

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9.	Vitamin K is inh A) Isoniazid	ibited by B) Methotrexate	C) Dicoumarol	D) Avidin
10.		owing vitamin is requestions on the community of the comm	uired for oxidative decoxidal phosphate C	earboxylation? Biotin D) Riboflavin
11.	Daily requirement A) 50 mg/day	nt of Vitamin C is B) 75 mg/day	C) 25 mg/day	D) 100 mg/day
12.	• •	-	g helps to differentiate	inic. She is found to be the causes of hypercalcemia? D) Growth hormone
13.	The Enzymes of A) Oxidases	Electron Transport C B) Dehydrogenase	thain belong to the follows C) Peroxidases	owing classes except D) Reductases
14.	Copper depender A) Homogentisa C) Lysyl oxidase		CCEPT B) Cytochrome Oxida D) Tyrosinase	se
15.	Iron is deficient i A) Cereals	n B) Maize	C) Milk	D) Pulses
16.	Which of the foll A) Chromium	owing element has an B) Zinc	ntioxidant role? C) Selenium	D) Nickel
	diet. Increased in	take of dietary fibre el motility		
18.	Body is in positiv A) Corticosteroic C) Convalescence		B) Chronicillness D) Acute illness	
19.	A baby with sever of onset of Kwas A) Below 1 year	hiorkor is	ented with edema to the C) More than 5 years	e pediatric clinic. The age ears D) 6 months
20.	For which of the A) Bilirubin	following test fasting B) Triglyceride	g sample is preferred? S C) Lipase	D) Uric acid



A) Oxidases

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Time: 20 Minutes Maximum: 20 Marks

Answer All Questions

	Shade the correct answer with B	ack or Blue ink	ball point pen			
	SET -	. В				
IV. M	ultiple Choice Questions:	_	$(20 \times 1 = 20)$			
1.	Sources of NADPH include all EXCEPT					
	A) Glucose -6- Phosphate dehydrogenaso		• •			
	C) Cytosolic Malate dehydrogenase	D) CytosolicIsoc	itrate dehydrogenase			
2.	In a competitive inhibition					
	A) Inhibitor has structural similarity to substrate					
	B) Km is decreased					
	C) Vmax is decreased					
	D) Reaction rate is independent of substr	ate concentration				
3.	Unsaturation of fatty acids is taking place	in which of the fo	ollowing sub cellular fraction?			
	A) Mitochondria B) Endoplasmic re		oxisome D) Lysosome			
	· ·	01.	•			
4.	Which of the following dietary modificat	ions have minimur	n hypocholesterolemic action?			
	A) Inclusion of fruits and vegetables	3) Dietary choleste	rol <300mg/day			
	C) Intake of whole wheat bran	O) Consuming fish	as the only non-veg food			
_	When in K is talkited by					
5.	Vitamin K is inhibited by	C) D:1	D) A! I'			
	A) Isoniazid B) Methotrexate	C) Dicoumarol	D) Avidin			
6.	Which of the following vitamin is require	d for ovidativa da	and avvilation?			
0.	Which of the following vitamin is required A) Thiamine pyrophosphate B) Pyroxidal B) Pyroxidal B)) Biotin D) Riboflavin			
	A) Thiannine pyrophosphate B) Fyroxi	iai piiospiiate C) Blottii D) Kiboliaviii			
7.	Daily requirement of Vitamin C is					
	A) 50 mg/day B) 75 mg/day	C) 25 mg/day	D) 100 mg/day			
8.	A symptomatic 45 year old woman came	for checkup in a c	linic. She is found to be			
	hypercalcemic. Which hormone testing h	•				
		C) Vitamin B ₁₂	D) Growth hormone			

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D) Reductases

9. The Enzymes of Electron Transport Chain belong to the following classes except

B) Dehydrogenases

C) Peroxidases



10.	Copper dependent en	nzymes are all	EXCEPT			
	A) Homogentisate (Oxidase	B) Cytochrome Oxid	ase		
	C) Lysyl oxidase		D) Tyrosinase			
11	Iron is deficient in					
11.	A) Cereals	B) Maize	C) Milk	D) Pul	Ises	
12.	Which of the follow	ing element ha	s antioxidant role?			
	A) Chromium	B) Zinc	C) Selenium	D) Nio	ckel	
13.	An elderly male predict. Increased intak		nstipation. Physician adv re	vised him	to take fibre rich	
	A) Increase bowel n	notility	B) Promotes consti	pation		
	C) Increases Choles	terol level	D) Decreases gluce	ose tolera	nce	
14.	Body is in positive r	- C				
	A) Corticosteroid the	= -	B) Chronicillness			
	C) Convalescence at	fter illness	D) Acute illness			
15.	of onset of Kwashio	rkor is	esented with edema to t	-	_	
	A) Below 1 year	B) 1 to 5 year	cs C) More than 5	years	D) 6 months	
16.	For which of the following	lowing test fast	ing sample is preferred	?		
	A) Bilirubin	B) Triglyceri	ides CC) Lipase		D) Uric acid	
17.	All the following ac	tivities are taki	ng place inside mitocho	ndria EX	CEPT	
	C) Beta Oxidation o	f Fatty acid	B) Electro Transport D) Denovo fatty acid	synthesis		
18.	A 2 year old baby prometabolism is Menta		elayed milestones. Which	ch inborn	error in carbohydr	ate
	A) EssentialPentosu	ria B)	Galactosemia			
	C) Carnitine deficien	ncy D)	Glucose -6- Phosphate	dehydrog	enase deficiency	
19.	A newborn baby phypoglycemia in Im	-	recurrent hypoglycemia	a. All ar	e the reasons for	ſ
	A) Low Acetyl CoA	•		ılin	D) Low ATP	
20.	Lipotropic factors at	e substances th	nat			
	A) Prevents Fatty li		B) Prevent cholestero	ol deposit	ion in Liver	
	C) Prevent atherosc		D) Induce Fatty liver	-		
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		PAPER I –	ESSIONAL – (CBM) BIOCHEMISTRY Code: 527055	E)		
Q.P. Code: 527055 Time: 20 Minutes Maximum: 20 Marks						
	. 20 Ivillianes	Answei	r All Questions	1/14/14/14/14/14/14/14/14/14/14/14/14/14		
	Shade the co		ith Black or Blue inl	k ball point pen		
		;	SET - C			
IV. M	ultiple Choice ($(20 \times 1 = 20)$		
1.		· ·	required for oxidative deprivation of the equired for oxidative deprivation of the equipment of the equipmen	ecarboxylation? C) Biotin D) Riboflavin		
2.	Daily requiremen	nt of Vitamin C is				
	A) 50 mg/day	B) 75 mg/day	y C) 25 mg/day	D) 100 mg/day		
3.	• •	•	-	clinic. She is found to be te the causes of hypercalcemia' D) Growth hormone		
4.	The Enzymes of A) Oxidases	Electron Transpor B) Dehydrogen	t Chain belong to the fo ases C) Peroxidase	_		
5.	. Copper dependent enzymes are all EXCEPT A) Homogentisate Oxidase B) Cytochrome Oxidase C) Lysyl oxidase D) Tyrosinase					
6.	Iron is deficient i A) Cereals	n B) Maize	C) Milk	D) Pulses		
7.	Which of the following element has antioxidant role?					
	A) Chromium	B) Zinc	C) Selenium	D) Nickel		
8.	•	take of dietary fib	•	vised him to take fibre rich		
	C) Increases Chol	esterol level	D) Decreases gluco	ose tolerance		
9.	Body is in positiv	ve nitrogen balance	e in			

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B) Chronicillness

D) Acute illness

A) Corticosteroid therapy

C) Convalescence after illness



10	. A baby with severe m of onset of Kwashiorl	-	ted with edema to th	e pediatri	c clinic. The age	
	A) Below 1 year	B) 1 to 5 years	C) More than 5 ye	ears	D) 6 months	
11	. For which of the follo	owing test fasting s	sample is preferred?			
	A) Bilirubin	B) Triglycerides	C) Lipase		D) Uric acid	
12	All the following acti A) Tricarboxylic acid C) Beta Oxidation of	cycle B	lace inside mitochon) Electro Transport C) Denovo fatty acid s	Chain	EPT	
13	 A 2 year old baby pre metabolism is Mental A) EssentialPentosuri C) Carnitine deficience 	retardation a feat ia B) Gala			•	
14	 14. A newborn baby present with recurrent hypoglycemia. All are the reasons for hypoglycemia in Impaired Beta Oxidation EXCEPT A) Low Acetyl CoA B) Low NADH C) High Insulin D) Low ATP 					
	 A) Prevents Fatty liv C) Prevent atheroscle Sources of NADPH in A) Glucose -6- Phose 	er B) erosis D) nclude all EXCEP		-		
	 A) Glucose -6- Phosphate dehydrogenase B) 6-phosphogluconate dehydrogenase C) Cytosolic Malate dehydrogenase D) Cytosolic Isocitrate dehydrogenase 					
17	In a competitive inhibA) Inhibitor has structB) Km is decreasedC) Vmax is decreaseD) Reaction rate is in	ctural similarity to				
18	. Unsaturation of fatty A) Mitochondria	acids is taking pla B) Endoplasmic		_	ub cellular fraction? D) Lysosome	
19	A) Inclusion of fruits C) Intake of whole w	and vegetables	ations have minimum B) Dietary cholester D) Consuming fish	rol <300n	ng/day	
20	. Vitamin K is inhibited A) Isoniazid B)	d by Methotrexate	C) Dicoumarol	D) Avid	in	



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		Answer	All Questions			
	Shade the cor	rect answer wi	th Black or Blue ink	ball point pen		
		S	SET - D			
IV. M	ultiple Choice Qu			$(20 \times 1 = 20)$		
1.	Iron is deficient in					
	A) Cereals	B) Maize	C) Milk	D) Pulses		
2.	Which of the follow	wing element has	antioxidant role?			
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	A) Increase bowel	oation				
	C) Increases Cholesterol level D) Decreases glucose tolerance					
4.	Body is in positive	nitrogen balance	in co			
••	A) Corticosteroid to	•	B) Chronicillness			
	C) Convalescence		D) Acute illness			
~	A 1 1 21	R		1' . ' 1' ' 771		
5.	A baby with severe malnutrition presented with edema to the pediatric clinic. The age of onset of Kwashiorkor is					
	A) Below 1 year	B) 1 to 5 years	C) More than 5 y	vears D) 6 months		
	11) Below 1 year	all to 5 years	of William 5	ours 2) o monuns		
6.	For which of the fo	llowing test fasti	ng sample is preferred?			
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	metabolism is Men					
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	C) Carnitine deficie	ency D) (Glucose -6- Phosphate	lehydrogenase deficiency		
9.	A newborn baby hypoglycemia in Ir	-		. All are the reasons for		

A) Low Acetyl CoA

B) Low NADH C) High Insulin

D) Low ATP

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10.	Lipotropic factors are substances that	
	· ·	B) Prevent cholesterol deposition in Liver D) Induce Fatty liver
	,	•
11.	Sources of NADPH include all EXCE	
		nase B) 6-phosphogluconate dehydrogenase
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	A) Inclusion of fruits and vegetables	B) Dietary cholesterol <300mg/day
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15.	Vitamin K is inhibited by	
	A) Isoniazid B) Methotrexate	C) Dicoumarol D) Avidin
1.0	XXII. 1 C.1 C.11	
10.	Which of the following vitamin is required.	· (V)
	A) Thiamine pyrophosphate B) Pyr	oxidal phosphate C) Biotin D) Riboflavin
17.	Daily requirement of Vitamin C is	
	A) 50 mg/day B) 75 mg/day	C) 25 mg/day D) 100 mg/day
18.	A symptomatic 45 year old woman ca	ame for checkup in a clinic. She is found to be
		ng helps to differentiate the causes of hypercalcemia?
	A) PTH B) Glucagon	C) Vitamin B_{12} D) Growth hormone
19.	The Enzymes of Electron Transport (Chain belong to the following classes except
	A) Oxidases B) Dehydrogenas	
	· · · · · · · · · · · · · · · ·	
20.	Copper dependent enzymes are all EX	
		B) Cytochrome Oxidase
	C) Lysyl oxidase	D) Tyrosinase
	***	*****
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