AZRA NAHEED MEDICAL COLLEGE
DEPARTMENT OF BIOCHEMISTRY

Name: _____

Roll No. : _____

Marks obtained: _____

CLASS TEST ON LIPIDS - 2020
SECOND YEAR MBBS PART II – MCQs

Total marks: 30
Time Allowed: 25 minutes **19/06/2020**

Select one best answer

1 Cholesterol is required in all except
(a) Bile acid synthesis
(b) Steroid hormone synthesis
(c) Membrane fluidity
(d) Thyroid hormone synthesis

2 Which of the following acts as lung surfactant?
(a) Phosphatidylcholine
(b) Phosphatidylethanolamine
(c) Ceramide
(d) Phosphatidylinositol

3 The conversion of acetyl CoA to malonyl CoA is the rate-limiting step in the fatty acid synthesis. Which of the following enzyme catalyzes the above-mentioned reaction?
(a) Acetyl CoA carboxylase
(b) Malonyl CoA synthetase
(c) Acetyl CoA decarboxylase
(d) Malonyl CoA synthase

4 Reducing power required for fatty acid biosynthesis is?
(a) ATP
(b) NADH
(c) NADPH
(d) FADH2

5 All are true regarding alpha oxidation except
(a) Energy is generated
(b) Oxidation does not require COA
(c) 1 molecule of CO_2 is produced in each cycle
(d) 1 Carbon is removed from carboxylic end

6 21 carbon Fatty acid will be catabolized into
(a) Acetyl-SCoA
(b) Propionyl CoA
(c) Succinyl-SCoA
(d) Malonyl-SCoA

7 Which monounsaturated fatty acid is the most abundant in human adipose tissue
(a) Palmitic acid
(b) Arachidonic acid
(c) Oleic acid
(d) Linoleic acid

8 Carnitine acyl transferase I (CAT I) controls fatty acid entry into the cell for oxidation. It is inhibited by:
(a) Carnitine
(b) Malonyl CoA
(c) Palmitate
(d) Carnitine acyl transferase II

9 Lauric acid a C12 fatty acid will undergo how many beta oxidation cycles and how many acetyl SCoA are formed
(a) 6 cycles + 5 acetyl SCoA
(b) 5 cycles + 6 acetyl SCoA
(c) 5 cycles + 5 acetyl SCoA
(d) 6 cycles + 6 acetyl SCoA

10 Which statement is not correct regarding triacylglycerol
(a) They are highly reduced molecules
(b) They are highly compact molecules
(c) They contain high amount of water
(d) Oxidation leads to highest energy yield

11 Cholesterol is converted to bile acids in liver by loosing
(a) Acetyl CoA
(b) Propionyl CoA
(c) Succinyl CoA
(d) Malonyl CoA

12 HMG CoA synthase cytosolic isoform in hepatocytes is responsible for
(a) Cholesterol synthesis
(b) Ketone body synthesis
(c) Fat synthesis
(d) Fatty acid synthesis

13 Bile acid synthesis requires addition of hydroxyl group at carbon number
(a) 3
(b) 5
(c) 7
(d) 9

14 Cycloxygenase enzyme acting on arachidonic acid is inhibited by
(a) Steroids
(b) NSAIDs
(c) Diuretics
(d) Anti Histamines

15 **Rate limiting enzyme in Cholesterol synthesis which is also inhibited by the statins is** (a) HMG SCoA synthase (b) HMG SCoA reductase (c) Acetyl SCoA lyase (d) Acetyl SCoA carboxylase	**16** **Liver cannot utilize ketone bodies because** (a) It lacks glycogen synthase (b) It lacks phophatase (c) It lacks thiophorase (d) It lacks phosphorylase
17 **Triacylglycerol is found in highest concentration in** (a) VLDL (b) HDL (c) LDL (d) Chylomicrons	**18** **Which enzyme is deficient in adipose tissue but present in liver for conversion of glycerol to glycerol 3PO4** (a) Glycerol kinase (b) Glycerol phosphatase (c) Glycerol oxidase (d) Glycerol dehydrogenase
19 **Dicarboxylic acids are formed from long chain fatty acids in which type of oxidation?** (a) Beta oxidation (b) Alpha oxidation (c) Omega oxidation (d) Odd chain fatty acid oxidation	**20** **VLDL is converted to all except** (a) VLDL remnants (b) IDL (c) HDL (d) LDL
21 **Lipoprotein lipase deficiency leads to** (a) Steatohepatitis (b) Type I hyperlipoproteinemia (c) Type II hyperlipoproteinemia (d) Type III hyperlipoproteinemia	**22** **Cholesterol is found in highest concentration in** (a) Chylomicrons (b) VLDL (c) HDL (d) LDL
23 **Primary building block of triglycerides and phospholipids is** (a) Phosphatidic acid (b) Sphingosine (c) Ceramide (d) Glucose	**24** **Cephalin is formed by** (a) Choline and phosphatidate (b) Inositol and phosphatidate (c) Ethanolamine and phosphatidate (d) Serine and phosphatidate
25 **Function of Lecithin-cholesterol acyltransferase (LCAT) is** (a) To free cholesterol (b) To form cholesterol esters (c) To form lecithin (d) To form HDL	**26** **Respiratory Distress Syndrome is deficiency of** (a) Cephalin (b) Phosphotidyl serine (c) Phosphotidyl inositol (d) Dipalmityl lecithin
27 **Phosphatidylglycerol + phosphatidylglycerol forms** (a) Cardiolipin (b) plasmalogen (c) Lecithin (d) Platelet activating factor	**28** **Ceramide is synthesized from** (a) Sphiingosine and glycerol (b) Sphingosine and phosphate (c) Sphingosine and fatty acid (d) Sphingosine and amino acid
29 **White Adipose tissue** (a) Has few mitochondria (b) Is involved in thermogenesis (c) Has important role in new borns (d) Has numerous mitochondria	**30** **Which type of oxidation takes place in brain and neural cells?** (a) Beta oxidation (b) Odd chain fatty acid oxidation (c) Omega oxidation (d) Alpha oxidation