201. On complete hydrolysis of DNA we will get all the following except_____?

A. Deoxy pentose sugar

B. Phosphoric acid

C. Adenosine

D. Purine bases

202. Denaturation of double stranded DNA involves_____?

A. It gets broken down to nucleotides

B. It becomes single stranded reversibly

C. It becomes single stranded irreversibly

D. It becomes double stranded irreversibly

203. Which of the following is used in recombinant DNA technology ?

A. **Restriction endonucleases**

B. PCR

C. Reverse transcriptase FISH

D. None of these

204. Transcription is the synthesis of_____?

A. **Single stranded complimentary copy of DNA**

B. Double stranded complimentary copy of DNA

C. Complimentary copy of RNA

D. COmplimentary copy of rRNA

205. Serum creatine kinase-3 (CK-3) is elevated in_____?

A. **Muscular dystrophy**

B. Myocardial infarction

C. Alcoholic cirrhosis

D. Brain tumours

206. Ammonia produced by brain is trapped as_____?

A. Urea

B. Uric Acid

C. Creatinine

D. Glutamine

207. The patient suffered from hypogondism, failure to thrive, lose of taste and unable to maintain stability. This shows the deficiency of_____?

A. **Zinc**

B. Chromium

C. Copper

D. Potassium

208. The sigma subunit of prokaryotic RNA polymerase_____?

A. Binds the antibiotic Rifampicin

B. Is inhibited by a-amanitin

C. Specifically recognizes the promoter site

D. Is part of the core enzyme

209. Iron absorption is decreased in presence of all except_____?

A. Phytates

B. Ascorbic acid

C. Tannins

D. Phosphates

210. Normal serum calcium level is_____?

A. 4-6 mg/dl

B. 9-11 mg/dl

C. 19-21 mg/dl

D. 20-30 mg/dl

211. The normal value of serum potassium level is_____?

A. 2.8-3.8 meq/L

B. 3.8-5 meq/L

C. 5-5.8 meq/L

D. 6-7.2 meq/L

212. Highest binding of iron in plasma is seen with_____?

A. **Transferrin**

B. Ferritin

C. Hemoglobin

D. Ceruloplasmin

213. Kinase requires_____?

A. MN++

B. Cu++

C. Mg++

D. Inorganic phosphate

214. Mutations are due to changes in_____?

A. **DNA nucleotide sequence**

B. RNA nucleotide sequence

C. Amino acid sequence of ribonuclease

D. Cell walls

215. The initiation codon for protein synthesis is_____?

A. **AUG**

B. UAA

C. UUU

D. UAG

216. Nonsense codons bring about_____?

A. Elongation of polypeptide chain

B. Pre-translational modification of protein

C. Initiation of protein synthesis

D. Termination of protein synthesis

217. Unwinding of DNA is done by_____?

A. DNAse

B. Topo isomerase

C. Ligase

D. Reverse transcriptase

218. Which of the following process in involved in conversion of DNA to RNA_____?

A. Conjugation

B. Transduction

C. Translocation

D. Transcription

219. Restriction endonuclease cleaves_____?

A. **Double stranded DNA**

B. SIngle stranded DNA

C. SIngle stranded RNA

D. Polypeptide

220. Genes are_____?

A. Ribonucleic acid

B. Deoxy ribonucleic acid

C. Lipoproteins

D. Chromo proteins

221. DNA double helix is bound by_____?

A. Covalent bond

B. Hydrogen bond

C. Disulfide linkage

D. Vander wall forces

222. Which base is not found in DNA_____?

A. Adenine

B. Guanine

C. Cytosine

D. Uracil

223. In the body, metabolism of 10 g of protein would produce approximately_____?

A. 1 Kcal

B. 41 Kcal

C. 410 Kcal

D. 4100 Kcal

224. Alkaptonuria an inherited metabolic disorder is due to the deficiency of_____?

A. **Homogentisate oxidase**

B. Cystathionase

C. Pheylalanine hydroxylase

D. Tyrosine transaminase

225. Colloidal osmotic pressure of plasma is by_____?

A. **Albumin**

B. Fibrinogen

C. Globulin

D. Prothrombin

226. The daily requirement of protein for the adults is_____?

A. 6 gms

B. 60 gms

C. 120 gms

D. 250 gms

227. The fastest moving fraction of protein in serum When subjected to paper electrophoresis is_____?

A. **Albumin**

B. Alpha 1 globulin

C. Beta Globulin

D. Gamma Globulin

228. Most common non protein nitrogenous fraction of blood_____?

A. Urea

B. Uric acid

C. Urobilinogen

D. Creatinin

229. Proteins are linear polymers of amino acids, They fold into compact structures Sometimes these folded structures associate to form homo or hetero dimers Which one of the following refers to this associated form ?

A. Denatured state

B. Molecular aggregation

C. Precipitation

D. Quaternary structure

230. The protein rich in basic amino acids, which functions in the packaging of DNA is chromosomes is_____?

A. **Histone**

B. Collagen

C. Hyaluronic acid binding protein

D. Fibrinogen

231. Which of the following is not a post transcriptional modification of RNA ?

A. Splicing

B. 5′ capping

C. 3′ polyadenylation

D. Glycosylation

232. Thyroxine and catecholamines are derived from_____?

A. **Tyrosine**

B. Tryptophan

C. Alanine

D. Leucine

233. In Hartnup's disease _____ is excreted in the urine?

A. Ornithine

B. Glutamine

C. Tryptophan

D. Phenylalanine

234. Which of the following is not a part of hemoglobin molecule_____?

A. Pyrrole rings

B. Vinyl groups

C. Histidine

D. Ferric ions

235. Proteins are absorbed from GIT as_____?

A. **Amino acids**

B. Peptides

C. Peptones

D. All of the above

236. Which of the following is a precursor of protoporphyrin_____?

A. Alanine

B. Leucine

C. Histidine

D. Glycine

237. Cytochromes are_____?

A. Pyridine nucleotides

B. Riboflavin containing nucleotides

C. Metal containing flavoproteins

D. Iron-porphyrin proteins

238. Heme in haemoglobin is_____?

A. Between Helix C and D

B. Surrounded by non polar environment

C. Bonded to E7 histidine

D. Protoporophyrin IX

239. Which of the following is correct about breakdown of hemoglobin (Hb)_____?

A. Hb→Heme→bilirubin→Urobilinogen

B. Heme→Hb→Biliverdin→Urobilinogen

C. Hb→Heme→Bilverdin→Uro bilinogen

D.

Hb→Heme→bilirubin→Urobilinogen→Biliverdin

240. Creatine is formed metabolically from_____?

A. Tryptophan

B. Arginine

C. Phenylalanine

D. Histidine

241. Major source of ammonia in the kidney is_____?

A. Urea Aspartate

B. Aspartate

C. Glutamine

D. Glutamate

242. Key enzyme in urea synthesis is_____?

A. Urease

B. Carbamyl synthetase

C. Arginase

D. Ornithine

243. Ammonia is detoxified in liver to form_____?

A. Uric acid

B. Glutamine

C. Creatinine

D. Urea

244. A small Ca+2 binding protein that modifies the activity of many enzymes and

other proteins in response to changes of Ca+2 concentration is known as_____?

A. Cycline

B. Calmodulin

C. Collagen

D. Kinesin

245. Decarboxylation of which of the following amino acids results in formation of a vasodilator ?

A. Valine

B. Arginine

C. Histidine

D. Glutamic acid

246. A mutation that converts an amino acid codon to a stop codon is a_____?

A. **Nonsense mutation**

B. Transversion

C. Silent mutation

D. Frame shift mutation

247. Histidine is converted to histamine by_____?

A. Transamination

B. Hydroxylation

C. Decarboxylation

D. Reduction

248. ALbumin is synthesized by_____?

A. **Liver**

B. Kidney

C. Muscle

D. Spleen

249. Which of the following amino acids is quickly converted to tyrosine ?

A. Arginine

B. Glycine

C. Phenylalanine

D. Leucine

250. Synthesis of protein occurs on_____?

A. Mitochondria

B. Poly ribosomes

C. Nucleus

D. Golgi bodies

251. Which of the following is present in the plasma but absent in the serum ?

A. Albumin

B. Globulin

C. Lecithin

D. Firbinogen

252. The amino acid, which is used is the estimation of collagen is_____?

A. **Hydroxyproline**

B. Proline

C. Lysine

D. Glycine

253. The amino acid from which niacin is synthesized is_____?

A. Tyrosine

B. Theronine

C. Tryptophan

D. Histidine

254. Hydroxylation of proline require the following except_____?

A. Fe+2

B. O2

C. Ascorbic acid

D. Succinate

255. The process by which a base sequence of messenger RNA is synthesized (by a RNA polymerase) on a template of complementary DNA is called_____?

A. **Transcription**

B. Transduction

C. Translation

D. Translocation

256. The major fuel for the brain after several weeds of starvation_____?

A. Glucose

B. Fatty acid

C. Beta hydroxy butyrate

D. Glycerol

257. Non essential amino acids are not_____?

A. Used by the body

B. Forming part of the proteins

C. Required in the diet

D. Absorbed in the intestines

258. The following is false about tryptophan_____?

A. **Non-essential amino acid**

B. Involved in serotonin synthesis

C. Involved in niacin synthesis

D. Involved in melatonin in synthesis

259. Which of the following amino acid is involved in gluconeogenesis_____?

A. Glycine

B. Valine

C. Cysteline

D. All of the above

260. Glycine is present in_____?

A. Hemoglobin

B. Glutathione

C. Purines

D. Creatine

E. All of the above

261. Quaternary structure of protein is_____?

A. The arrangement sequence of amino acids in the polypeptide chain

B. Inter relation between amino acids in a single polypeptide chain

C. Inter relation of amino acids in 2 polypeptide chains

D. The inter relation and arrangement of polypeptides in a protein with more than 2 polypeptide chains

262. Which of the following is a derived a derived protein_____?

A. Protamines

B. Peptones

C. Prolamines

D. Lactalbumin

263. All are genetic amino acid deficiency disease except_____?

A. Phenyl ketonuria

B. Alkaptonuria

C. Homocystinuria

D. 6alactosemia

264. Mannose 6 phosphate containing freshly synthesized proteins are directed to_____?

A. Nucleus

B. Lysosomes

C. Mitochondria

D. Golgi apparatus

265. Glutamine replaced by valine in sckle cell anaemia is characterized_____?

A. Non Sense mutation of beta chain

B. Missense mutation of beta chain

C. Degradation of beta chain

D. Deletion of beta chain

266. All are true about glutathione except ?

A. It is a tripetide

B. It converts hemoglobin to methemoglobin

C. It conjugates xenobiotics

D. It scavenges free radicals and superoxide ions

267. The class of amino acids that contains only non essential amino acids is_____?

A. **Acidic**

B. Basic

C. Aromatic

D. Branched chain

268. The nitrogen content in 50 gm of a typical dietary protein is most likely to be_____?

A. 5 gm

B. 8 gm

C. 10 gm

D. 16 gm

269. The number of essential amino acid are_____?

A. 6

B. 8

C. 12

D. 16

270. The amino acid residue having animino side chain is_____?

A. Lysine

B. Histidine

C. Tyrosine

D. Proline

271. The primary role of chaperones is to help in_____?

A. Protein synthesis

B. Protein degradation

C. Protein denaturation

D. Protein folding

272. Argentaffinoma is characterized by excess excretion of_____?

A. **5- Hydroxy indole acetate**

B. 3- Hydroxy phenyl pyruvate

C. Phenyl lactate

D. Phenyl acetate

273. Urea is formed in_____?

A. Brain

B. Kidney

C. Liver

D. Intestine

274. Which of the following combination is correct ?

A. Thiamine – Acyl CoA

B. Biotin-CO2

C. ATP-Hydrogen

D. All of the above

275. Insulin increase the following pathways in liver EXCEPT_____?

A. Fatty acid synthesis

B. Glycogen synthesis

C. Protein syntehsis

D. Glucose synthesis

276. Most lipogenic_____?

A. **Fructose**

B. Glucose

C. Galactose

D. Ribose

277. Type II glycogen storage disorder is due to deficiency of_____?

A. **Alpha -Glucosidase**

B. Alpha galactosidase

C. Muscle phosphorylase

D. Acid Lipase

278. Dietary fibre is rich in_____?

A. Starch

B. Cellulose

C. Collagen

D. Inulin

279. Fructose intolerance is to_____?

A. Fructose only

B. Fructose and glucose

C. Sucrose only

D. Fructose and sucrose

280. The monsaccharide glucose is best described by which one of the following statements ?

A. It usually exists in the furanose form

B. It is a ketose

C. It possessesan anomeric C-2 carbon atom

D. It formspart of the disaccharide sucrose

281. Number of ATP molecules generated in the conversion of glycogen of lactate is_____?

A. **2**

B. 36

C. 38

D. 32

282. NADPH is generated by the action of_____?

A. **Glucose 6 phosphate dehydrogenase**

B. Glucose 1 phosphate dehydrogenase

C. Glucose 1,6 diphosphate dehydrogenase

D. All of the above

283. HMP shunt is of great importance in cellular metabolism because its produces_____?

A. ATP

B. ADP

C. Acetyl CoA

D. NADPH

284. Glucose 6 phosphatase deficiency is seen in_____?

A. Pomper's disease

B. Von Gierke's disease

C. McArdles syndrome

D. Downs syndrome

285. Sites where HMP shunts can occur include_____?

A. Liver

B. WBC

C. Lactating mammary gland

D. Testes

E. All of the above

286. Step in HMP pathway requiring TPP_____?

A. G6 PD

B. 6 phosphogluconate dehydrogenase

C. Transketolase

D. Transaldolase

287. 1 molelcule of glucose forms _____ molecules of pyruvate?

A. 1

B. 2

C. 3

D. 4

288. The main pathways of metabolism in brain are_____?

A. **Glycolysis and citric acid cycle**

B. Glycogenolysis and Gluconeogenesis

C. Embden-Meyerhof Pathway and H.M.P shunt

D. Glycogenolysis and Citric and cycle

289. In glycolysis ATP is produced by the following enzyme_____?

A. Hexokinase

B. Phosphoglycerate kinase

C. Enolase

D. Phosphohexose isomerase

290. Inhibition of glycolysis by O2 is known a_____?

A. Muni effect

B. Pasteur effect

C. Hill reaction

D. Gluconeogenesis

291. Which one of the following is the correct sequential order in which the given enzymes of kreb's cycle are formed after a molecule of acetyl CoA_____?

A. **Citrate, Oxalocetate, Ketoglutarate**

B. Ketoglutarate, Oxalocetate, Citrate

C. Citrate, Ketoglutarate, Oxalocetate

D. Oxalocetate, Ketoglutarate, Citrate

292. Kreb's cycle does not occur in_____?

A. Muscle

B. RBC

C. Heart

D. All of the above

293. In TCA cycle or tricarboxylic acid cycle, which is first formed_____?

A. Isocitrate

B. Citrate

C. Succinate

D. Fumarate

294. Renal threshold for glucose is_____?

A. 80 mg%

B. 100 mg%

C. 180 mg/ dl

D. 200 mg%

295. The key enzyme of gluconeogenesis is_____?

A. **Pyruvate carboxylase**

B. Fructose 1,6 disphosphatase

C. Glucose 6 phosphatase

D. Phosphoenol pyruvate carboxykinase

296. Which one of the following is a monosaccharide_____?

A. Maltose

B. Sucrose

C. Fructose

D. Strach

297. Which of the following is abnormal constituent of urine_____?

A. **glucose**

B. Creatine

C. Urea

D. None of the above

298. The conversion of glucose 6-P to fructose 6-P is an example of which of the following reactions_____?

A. Phosphate transfer

B. Isomerisation

C. Dehydration

D. Aldol cleavage

299. Cane sugar is_____?

A. Glucose

B. Surose

C. Fructose

D. Maltose

300. In TCA, substrate level phospherylation takes place in_____?

A. Alpha ketoglutrate to succinyl CoA

B. Succinyl CoA to Succinate

C. Succinate to fumarate

D. Oxalocetate to citrate

301. Enzymes concerned with the citric acid cycle are found in the_____?

A. Nucleus

B. Ribosomes

C. Mitochondria

D. Nonparticulate cytoplasm

302. All of the following are substrates for gluconeogenesis except_____?

A. Alanine

B. Oleic acid

C. Glycerol

D. Tryptophan

303. During conversion of glycerol to pyruvic acid, the first glycolytic intermediate to form is_____?

A. 2- phospho glyceric acid

B. 3- phospho glyceric acid

C. 3- phospho glyceralehyde

D. Dihydroxy acetone phosphate

304. The first product of glycogenolysis is_____?

A. Glucose 6 phosphatase

B. Glucose 1,6 diphosphatase

C. Glucose 1- phosphatase

D. Fructose 1- phosphatase

305. Glucose can be synthesized from all except_____?

A. Amino acids

B. Glycerol

C. Acetoacetate

D. Lactic acid

306. The tissue with the highest glycogen content (mg/100gm)_____?

A. **Liver**

B. Muscle

C. Kidneys

D. Testes

307. Major contribution towards gluconeogenesis is by_____?

A. **Lactate**

B. Glycerol

C. Ketones

D. Alanine

308. An essential for the conversion of glucose to glycogen in liver is_____?

A. **UTP**

B. GTP

C. Pyruvate Kinase

D. Guanosine

309. Which of the following enzymes use NADP as coenzyme _____?

A. Glyceraldehyde 3 phosphate dehydrogenase

B. Lactate dehydrogenase

C. Glucose 6-Phosphate dehydrogenase

D. Beta hydroxy acyl CoA dehydrogenase

310. In prolonged starvation the main nergy source of brain is_____?

A. Glucose

B. Ketone bodies

C. Fructose

D. Fatty acids

311. The citric acid cycle is the final pathway for oxidation of_____?

A. Enzymes

B. Vitamins

C. Minerals

D. None of the above

312. The uptake of glucose by the liver increase following a carbohydrate meal because_____?

A. **There is increase in phosphorylation of glucose by glucokinase**

B. GLUT-2 stimulated by insulin

C. Glucokinase has a low Km for glucose

D. Hexokinase in liver has a high affinity for glucose

313. Which one of the following enzymes provides a link between glycolysis and the citric acid cycle ?

A. Lactate dehydrogenase

B. Pyruvate kinase

C. Citrate synthase

D. Pyruvate dehydrogenase

314. Increase in pyruvate and lactate is seen in which of the following deficiency ?

A. **Thiamine**

B. Pyridoxine

C. Niacin

D. Vitamin C

315. Glycogen breakdown leads to formation of_____?

A. Glucose

B. Lactic acid

C. Glucose & Lactic acid

D. Glycoprotein

316. Which is not a oligosaccharide sugar ?

A. **Galactose**

B. Lactose

C. Maltose

D. Sucrose

317. One molecule of acetyl Co-A gives rise to _____ ATP molecules?

A. 2

B. 8

C. 12

D. 32

318. All these reactions take place inside the mitochondria except_____?

A. **EMP pathway**

B. Krebs cylce

C. Urea cycle

D. Electron transfer

319. Which of the following is not a product of HMP shunt_____?

A. NADPH

B. D fructose 6 phosphate

C. D sedoheptulose 5 phosphate

D. D glyceraldehyde 3 phosphate

320. All are true regarding glucose 6 phosphate deficiency except_____?

A. Hyperuricemia

B. Hyperglycemia

C. Defective cori cycle

D. Increased mobilization of glycogen from liver

321. Blood glucose level cannot be augmented by mobilization of muscle glycogen due to lack of_____?

A. G-6-P dehydrogenase

B. G-6-P phydrogenase

C. Aldolase

D. Glucokinase

322. Galactosemia commonly is due to deficiency of_____?

A. **Galactose 1 phosphatase uridyl transferase**

B. Galactose 1 phosphatase

C. Glucose 1 phosphatase

D. Glucose 6 phosphatase

323. In which type of glycogen storage disease is hyper uricemia a feature ?

A. I

B. II

C. III

D. IV

324. McArdles disease is due to the deficiency of_____?

A. Glucose 1 phosphatase

B. Glucose 1,6 phosphatase

C. Glucose 6 phosphatase

D. Myophosphorylase

325. An enzyme not involved in glycolysis is_____?

A. Enolase

B. Phosphoglycero mutase

C. Aldolase

D. Glycerophosphate dehydrogenase

326. Phosphofructokinase is the key enzyme of_____?

A. **Glycolysis**

B. Gluconeogenesis

C. Beta oxidation

D. TCA cycle

327. Which metabolite of TCA cycle is used in detoxification of ammonia in brain_____?

A. **Alpha ketoglutarate**

B. Ornithine

C. Oxalocetate

D. Glycine

328. In TCA cycle, citrate is converted in to after losing a molecule of H2O_____?

A. Isocitrate

B. Cisaconitate

C. Oxalocetate

D. Glutarate

329. In TCA cycle substrate level phosphorylation occurs at_____?

A. Succinate dehydrogenase

B. Malonate reduction

C. Thiokinase

D. None of the above

330. Which of the following is correctly matched ?

A. Isocitrate to oxalo succinate -1 ATP is formed

B. Succinyl CoA to succinate -1 ATP is formed

C. Succinate to furmarate -1 ATP is formed

D. Malate to oxaloacetate -1 ATP is formed

331. The enzyme involved in the first committed step of glycolysis is_____?

A. Phosphofructokinase

B. Glucose-6-Phosphatase

C. Hexokinase

D. Enolase

332. The end product of glycolysis under anaerobic conditions is_____?

A. **Lactic acid**

B. Pyruvic acid

C. Acetoacetic acid

D. Oxaloacetic acid

333. The following is not a carrier protein_____?

A. Cerruloplasmin

B. Transferrin

C. Transcobalamine

D. Haptoglobulin

334. False statement about haemoglobin structure ?

A. **Hb has 2 polypeptide chains**

B. Iron is present in ferrous state

C. Hb structurally similar to myoglobin

D. Ferrous ions are in porphyrin rings

335. At PH 7 the binding of 2,3 DPG to hemoglobin occurs at which site ?

A. Sulphydryl group

B. Carboxy terminal

C. Amino terminal

D. Histidine

336. Iron is complexed in haemoglobin to_____?

A. Leucine

B. Histidine

C. Isoleucine

D. Valine

337. Urea is produced by the enzyme_____?

A. Urease

B. Uricase

C. Arginase

D. Glutaminase

338. Urinary protein is detected by_____?

A. Barfoed test

B. Hay's test

C. Boiling test

D. Ehrlich's test

339. Which is the by product of the urea cycle_____?

A. Aspartate

B. Succinate

C. Ornithine

D. Fumarate

340. Amino acids excreted in the urine in cystinosis_____?

A. Cystine

B. Ornithine

C. Arginine

D. Lysine

E. All of the above

341. Albinism is a genetic disease that results in incomplete metabolism of_____?

A. Histidine

B. Cystine

C. Tyrosine

D. Alanine

342. All of the following are globular proteins except_____?

A. Prolamines

B. Albumin

C. Globulin

D. Myosin

343. Which one of the following amino acids is purely ketogenic ?

A. Proline

B. Phenylalanine

C. Isoleucine

D. Leucine

344. Collagen is rich in_____?

A. Glutamate and glycine

B. Alanine and glycine

C. Proline and glycine

D. Glutamate and proline

345. Digestion of proteins is initiated by_____?

A. Amylase

B. Sucrase

C. Chymotrypsin

D. Pepsin

346. The nitrogen of the body is supplied by_____?

A. Triacyl glycerol

B. Proteins

C. Glucose

D. Lipids

347. Alkaptonuria, an inherited metabolic disorder of L0tyrosine metabolism is due to lack of_____?

A. Parahydroxy phenyl pyruvate Hydroxylase

B. Tyrosine transaminase

C. Homogentisate oxidase

D. Tyrosine oxidase

348. One of the following is not an amino acid_____?

A. Glycine

B. Hydroxy proline

C. Glutamic acid

D. Choline

349. Precursor of melanin is_____?

A. Phenylalanine

B. Tryptophan

C. Tyrosine

D. Methionine

350. The reducing end of glutathione, the amino acid is_____?

A. **Glycine**

B. Leucine

C. Lycie

D. Valine

351. Following are the essential amino acid_____?

A. **Phenylalanine, Tryptophan lysine**

B. Phenylalanine, Arginine Methinonine

C. Phenylalanine, Valine, Glycine

D. Histidine, Glutamine, Valine

352. The process of transfer of information from the RNA to the proteins is called_____?

A. Mutation

B. Translation

C. Transcription

D. Conjugation

353. Following is non-essential amino acid_____?

A. Phenylalanine

B. Proline

C. Tryptophan

D. Threonine

354. One of the following is nonessential amino acid_____?

A. **Tyrosine**

B. Valine

C. Methionine

D. Cystine

355. Aromatic ring is present in_____?

A. Arginine

B. Glycine

C. Phenylalanine

D. Phenylalanine, Glycine

356. In maple syrup urine disease the amino acids excreted in the urine are_____?

A. Leucine

B. Isoleucine

C. Valine

D. All of the above

357. Indole ring is present in_____?

A. **Tryptophan**

B. Valine

C. Methionine

D. Histidine

358. Biuret test is confirmatory test for_____?

A. **Protein**

B. Fat

C. Carbohydrate

D. None of the above

359. Albumins and globulins are _____ proteins?

A. **Simple**

B. Peptones

C. Prolamines

D. Lactalbumin

360. Tertiary structure of protein is maintained by all except_____?

A. H2 bond

B. Hydrophobic

C. Ionic bond

D. Disulphide bond

E. None of the above

361. Vitamin C effects_____?

A. Maturation of procollagen

B. Formation of osteoid matrix

C. Calcification of osteoid

D. Both A and B

362. Cereals are deficient in_____?

A. **Vitamin C**

B. Vitamin B complex

C. Iron

D. Calcium

363. The vitamin K dependent proteins C and S are characterized by their ability to inactivate factor_____?

A. **VIII a and V a**

B. VIII a

C. V a

D. None of the above

364. Who is known for his work on scurvy ?

A. Fracastorius

B. James lind

C. John snow

D. Edward Jenner

365. Aniacinosis results in_____?

A. Perleche

B. Beri beri

C. Pellagra

D. Nyctalopia

366. Biotin is required for the activity of_____?

A. **Pyruvate carboxylase**

B. Lactate dehydrogenase

C. Succinate thiokinase

D. Phosphohexose isomerase

367. All of the following are true about manifestations of vitamin E deficiency except_____?

A. Hemolytic anemia

B. Posterior column abnormalities

C. Cerebellar ataxia

D. Autonomic dysfunctions

368. Both Vitamin K and C are involved in_____?

A. The synthesis of clotting factors

B. Post translational modifications

C. Antioxidant mechanisms

D. The microsomal hydroxylation reactions

369. Thiamine deficiency can be diagnosed by measuring_____?

A. Thiamine levels in blood

B. Alkaline phosphatase levels in blood

C. Transketolase activity in RBC

D. Plasma pyruvate and lactic acid levels

370. Vitamin B12 is_____?

A. **Extrinsic factor of castle**

B. Intrinsic factor of castle

C. Cyano cobalamine

D. A fat soluble vitamin

371. Sources of the nucleotide portion of NAD include_____?

A. N-methyl nicotinamide

B. Riboflavin

C. PRPP

D. Tryptophan

372. Consumption of raw egg white in the diet may result in the deficiency of_____?

A. Riboflavin

B. Biotin

C. Thiamine

D. Pyridoxine

373. Peripheral neuropathy due to deficiency of vitamin is seen with_____?

A. **Pyridoxine**

B. Vit E

C. Vit A

D. Pantothenic acid

374. Deficiency of vitamin C causes the following except_____?

A. Defective collagen synthesis

B. Soft swollen gums

C. Pigeon chest

D. Subcutaneous & other hemorrhage

375. FIGLU excretion test is to estimate deficiency of_____?

A. Vitamin K

B. Vitamin B6

C. Vitamin folic acid

D. Niacin

376. Avidin influences which of the following vitamins ?

A. **Biotin**

B. Niacin

C. Thiamine

D. Phylloquinone

377. Which of the following are the sources of Vit C_____?

A. Apple

B. Fresh green vegetables

C. Citrus fruits

D. Both B and C

378. Niacin & riboflavin help in_____?

A. **Redox reactions**

B. Transamination reaction

C. Methyl group transfer

D. Amine group transfer

379. Collagen formation is affected in deficiency of_____?

A. Vit A

B. Vit C

C. Vit B2

D. Vit D

380. Angular cheilosis is frequently associated with deficiency of_____?

A. Thiamine

B. Riboflavin

C. Niacin

D. Folic acid

381. The amino acid from which niacin synthesized is_____?

A. Tyrosine

B. Tryptophan

C. Threonine

D. Histidine

382. Coenzyme A contains which of the following vitamins_____?

A. Biotin

B. Pyridoxine

C. Pantothenic acid

D. Niacin

383. Which of the following is the poorest source of vitamin C ?

A. **Milk**

B. Cabbage

C. Guava

D. Radish

384. Pernicious anaemia occurs in_____?

A. Vit B1 deficiency

B. Vit B12 deficiency

C. Vit C deficiency

D. Vit D deficiency

385. Vitamin associated with one carbon transfer is_____?

A. Niacin

B. Thiamine

C. Ascorbic acid

D. Folic acid

386. Average daily dose of vitamin C is_____?

A. 30 – 40 mg

B. 50 – 60 mg

C. 60 – 100 mg

D. 100 – 150 mg

387. Xerophthalmia is caused by_____?

A. **Vitamin A deficiency**

B. Vitamin D deficiency

C. Vitamin C deficiency

D. Vitamin K deficiency

388. Which of the following factors delay wound healing_____?

A. Vitamin B12 deficiency

B. Ascorbic acid deficiency

C. Infection

D. B & C option

389. Ascorbic acid_____?

A. **Is a reducing agent**

B. Decrease iron absorption

C. Is harmless in high doses

D. Is requirement for lysyl oxidase

390. Tocopherol is associated with_____?

A. Vitamin A

B. Vitamin E

C. Vitamin K

D. Vitamin D

391. The action of vitamin K in formation of clotting factor is through_____?

A. Post transcription

B. Post translation

C. Golgi complex

D. Endoplasmic reticulum

392. Which of the following is not true of Vit D_____?

A. Its active form is calcitriol

B. Increase calcium absorption from the intestines

C. Its deficiency results in rickets

D. Its decrease cause phosphate reabsorption from the kidneys

393. Most of vitamin B12 in the body is stored as_____?

A. **Methyl B12**

B. Hydroxy B12

C. Cyano cobalamine

D. None of the above

394. The following vitamin is important in non-oxidative decarboxylation, transamination and transsulfuration reactions_____?

A. Riboflavin

B. Thiamine

C. Pyridoxine

D. Pantothenic acid

395. Vitamin C is present in largest amount in the body in_____?

A. Eye

B. Kidneys

C. Testes

D. Adrenal cortex

396. Tryptophan load test helps in the evaluation of deficiency of the vitamin_____?

A. Folic acid

B. Niacinamide

C. Pyridoxine

D. Cyano cobolamine

397. Which vitamin is related to a co-factor in glycine metabolism is_____?

A. Vit E

B. Folic acid

C. Thiamine

D. Cobalamine

398. Two Vitamin whose derivatives are involved in transformation of serine to glycine are_____?

A. B6 ad B12

B. B12 and nicotinamie

C. Folic acid and B6

D. Folic acid and B12

399. The mineral having sparing action on Vitamin E_____?

A. Chromium

B. Iron

C. Iodine

D. Selenium

400. 1st clinical sign of vitamin A deficiency is_____?

A. night blindness

B. bitot's spots

C. xerostomia

D. conjunctival xeroses

401. Vitamin D_____?

A. Absorption requires bile pigments

B. Synthesis is regulated at the reaction catalyzed by 15-hydroxylase

C. Deficiency on adults leads to rickets

D. Along with PTH, increases calcium resorption from bone

402. Thiamine deficiency causes decreased energy production because_____?

A. It is required for the process of transmination

B. It is co-factor in oxidative reduction

C. It is co-enzyme for transketolase in pentose phosphate pathway

D. It is co-enzyme for pyruvate dehydrogenase

403. One molecule of B-carotene gives rise to_____?

A. 1 unit of Vitamin A

B. 2 unit of Vitamin A

C. 3 unit of Vitamin A

D. 4 unit of Vitamin A

404. The maximum content of vitamin E is found in_____?

A. Cold liver oil

B. Fish liver oil

C. Wheat germ oil

D. Liver

405. Vitamin A_____?

A. Is water soluble

B. Deficiency causes impaired vision

C. Maintains normal plasma calcium levels

D. Is required for formation of clotting factors

406. Vitamin B12 acts as a coenzyme to which one of the following enzyme ?

A. Isocitrate dehydrogenase

B. Homocyteine methyl transferase

C. Glycogen synthase

D. G-6-P dehydrogenase

407. Deficiency of vitamin C causes the following except_____?

A. Painful swollen gums

B. Abnormal Collagen

C. Anaemia

D. Diarrhoea

408. Vit B12 is absorbed in the_____?

A. Stomach

B. Terminal ileum

C. Lower jejunum

D. Proximal ileum

409. Coenzyme forms are correctly matched except_____?

A. Biotin – carboxylated biotin

B. Vitamin B – ATP

C. Niacin – NAD+NADP

D. Vitamin B2 – FMN+FAC

410. Vitamin K dependent clotting factors are_____?

A. II

B. VII

C. IX

D. X

E. All of the above

411. Deficiency of which vitamin causes glossitis dementia roughed keratotic areas on skin and gastrointestinal symptoms ?

A. Riboflavin

B. Pyridoxine

C. Niacin

D. Pantothenic acid

412. Rhodopsin deficiency is chiefly associated with_____?

A. Vitamin D deficiency

B. Rickets

C. Vitamin A deficiency

D. Scurvy

413. Vitamin K_____?

A. **Helps in formation of prothrombin**

B. Inhibition of antithrombin

C. Prevention of capillary fragility

D. Stimulation of hematopoiesis in red bone marrow

414. Vitamin K antagonizes_____?

A. Corticosteroids

B. Thrombin formation

C. Bishydroxy coumarin

D. Production of clotting factors by liver

415. In vitamin A deficiency, patient complains of all of the following except_____?

A. Night blindness

B. Xerophthalmia

C. Keratosis

D. Phophoric calciuria

416. The vitamin that facilitates iron absorption_____?

A. Folic acid

B. Ascorbic acid

C. Biotin

D. Para amino benzoic acid

417. Active form of vitamin D in kidney is_____?

A. 1 dihydroxy cholecalciferol

B. 25 hydroxy cholecalciferol

C. 1,25 dihydroxy cholecalciferol

D. 7 dihydroxy calciferol

418. Deficiency of vitamin A causes the following except_____?

A. Night blindness

B. Corneal dryness

C. Bitot's spots

D. Myopia

419. Fast soluble vitamins are_____?

A. A, B , D, K

B. A, D. E, K

C. A, B, E, K

D. A, C, E, K

420. Specific disease caused by vitamin B1 deficiency_____

A. Pellagra

B. Angular cheilitis

C. Megaloblastic anemia

D. Peripheral polyneuritis