

Q of C.A.T. 2 in 1425 – 1426 h

PART I \ One Best Response

- 1- **All of the following statements concerning the structure of vitamin are correct except:**
 - a- quinine ring is present in vit.K
 - b- Alpha tocopherol is the most active form of vit. E
 - c- cyanaocobalamine contains heme
 - d- vit. D2 is ergocalciferol
 - e- vit. A contains a Beta-ionone ring.

- 2- **Which one of the following statements about Beta-carotene is Incorrect:**
 - a- it reduces the risk of cataract
 - b- it reduces the incidence of coronary heart disease
 - c- its cleaved in intestine to yield tow molecules of retinol
 - d- its not toxic in high doses
 - e- it stimulates the immune functions

- 3- **regarding 1,25- dihydroxycholecalciferol (1,25-diOH D3):**
 - a- its functions through a cell surface receptor
 - b- its excreted mainly in urine
 - c- its increase calcium excretion by the kidney
 - d- hypocalcaemia elevates its plasma level
 - e- excess of 1,25diOH D3 increases the activity of 1-hydroxylase

- 4- **all of the following statements are correct for osteoporosis, except:**
 - a- it occurs in the elderly of both sexes
 - b- its due to progressive loss of bone mass
 - c- athletes of both sexes are at a higher risk for the disease
 - d- estrogen replacement is effective for prevention in postmenopausal
 - e- recurrent bone fracture are common

- 5- **regarding energy expenditure per day:**
 - a- basal metabolic rate is the total energy expended
 - b- the thermogenic effect of food represents 20-30%
 - c- its not proportionate to body wt, surface area and age
 - d- proteins have the highest specific dynamic action
 - e- its increased in hypothyroidism



- 6- all of the following statements concerning nutrition and chronic disease are correct except:**
- a- vit. C protects against stomach cancer
 - b- a high intake of saturated fat increases the risk for colon and breast cancer
 - c- supplement containing vit E much higher than its RDA may resived from coronary heart disease
 - d- Beta-carotene decrease the risk for many cancers
 - e- a higher fiber diet increases the risk for constipation and colon cancer
- 7- which vitamins controls the expression keratin gene in most epithelial tissues:**
- a- vit C
 - b- vit D
 - c- vit B1
 - d- vit A
 - e- vit E
- 8- all of the following statement are correct except:**
- a- dicumarol inhibits the formation Gamma-carboxyglutamate residue of prothrombin
 - b- chronic renal failure is associated with calcitriol deficiency
 - c- bleaching of the visual pigment is associated with the release of 11-cis
 - d- vit K is found in cabbage and spinach, liver
 - e- toxic dose of vit D for prolonged time lead to deposition of calcium in the kidney.
- 9- which one of the following cofactor must be utilized during the conversion of acetyl CoA to malonyl CoA ?**
- a- TPP
 - b- Acyl carrier protein (ACP)
 - c- Biotin
 - d- FAD
 - e- NAD
- 10- both active forms of folic acid and vit B12 are required for:**
- a- isomerization of methyl malenyl COA
 - b- methylation of noradrenaline to adrenaline
 - c- methylation of homocysteine
 - d- conversion of pyridoxine to pyridoxamine
 - e- Edecarboxylation of histidine



- 11- which one of the following statements concerning 25-hydroxycholecalciferol-11-hydroxylase is incorrect:**
- a- its found primary in kidney
 - b- its activity is increased by high plasma level of ph ...
 - c- parathyroid hormone increases its activity
 - d- its employ ...
 - e- its activity is decreased by high plasma level of ...
- 12- which one of the following statement about vitamins is incorrect:**
- a- vit A is the least toxic for soluble vitamin
 - b- high doses of vit. D can causes hypocalcaemia
 - c- prolonged treatment with ...
 - d- pernicious anemia is most commonly
 - e- calcitriol acts in manner ...
- 13- the predominant form of vit D in the plasma is :**
- a- calcitriol
 - b- cholesterol
 - c- 7-dehydrocholesterol
 - d- 1-hydroxycholecalciferol
 - e- 25-hydroxycholecalciferol
- 14- retinol**
- a- mediated all the actions of retinoid
 - b- is transported from the intestine to liver ...
 - c- ???
 - d- forms a complex with retinol binding protein that attached to cell surface receptor and activates cAMP
 - e- can be formed by retinoic acid
- 15- all of the following statement concerning vit K2 are correct except:**
- a- it's the only fat soluble vit. that is synthesis by intestinal
 - b- bacteria
 - c- it's a cofactor for Gamma-carboxylation of glutamine acid residues of prothrombin in newborns, all their daily requirement is provided by breast milk
 - d- its deficiency caused hemorrhagic disease
 - e- prolonged administration of large doses produced hemolytic anemia in infant.



16- regarding vitamin E:

- a- its most toxic fat soluble vitamin when given large dose
- b- its primary function is to help in oxidation of cell components
- c- its requirement decrease as the intake of polyunsaturated fatty acid increases
- d- it protects against the development neural tube defects in fetus
- e- its deficiency usually associated with defective lipid absorption or transport

17- which one of the following statements is correct:

- a- vit B12 is synthesized by bacteria and not present in the plants
- b- all types of retinoid have roll in the vision
- c- deficiency of folic acid can cause folate trap leading to megaloblastic anemia
- d- fat soluble vitamins are easily excreted in urine
- e- TPP is coenzyme in carboxylation reactions

18- L-Ascorbic acid has a roll in all of the following except:

- a- the inactivation of toxic oxygen in radicals
- b- the absorption of iron from the intestine
- c- collagen synthesis
- d- the prevention of chronic lung disease and cancer
- e- hydroxylation of blood coagulation factors

19- methotrexate is an anticancer drug that inhibit the activity of:

- a- glutathione reductase
- b- Dihydrobiopterine reductase
- c- Dihydrofolate reductase
- d- Ribonucleotide reductase
- e- L-asparaginase

20- the current dietary recommendation include the following except:

- a- restriction of fat consumption to 50% of total caloric intake
- b- the increased used unsaturated fatty acid in diet
- c- limiting total protein intake to 12% of total caloric intake
- d- moderate intake of dietary fibers
- e- limiting total carbohydrate intake to 58% of total caloric intake

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- 21- which one of the following statements is correct:**
- a- dehydroascorbic acid is the toxic metabolite of L-ascorbic acid
 - b- cephalosporin may cause hemolytic anemia due to vit. K deficiency
 - c- osteomalasia is due to vit D deficiency in infants
 - d- olive oil contains the lowest percentage of monounsaturated of fatty acids
 - e- excess consumption of starch is associated with increase of incidence of dental caries
- 22- which one of the following vitamins can act without phosphorylation?**
- a- Pyridoxine
 - b- Biotin
 - c- Niacin
 - d- Thiamine
 - e- Riboflavin
- 23- a negative nitrogen balance is observed:**
- a- during pregnancy
 - b- during recovery from emaciating illness
 - c- immediately after surgery
 - d- in normal early childhood
 - e- in growing fetus
- 24- regarding vit A :**
- a- its promotes the maintenance of epithelial tissues
 - b- its necessary in hearing
 - c- its synthesized in the skin
 - d- it's a form a steroid hormones
 - e- all its forms are safe to use during pregnancy
- 25- regarding dietary fiber:**
- a- its composed of cellulose and limited dextrin
 - b- it affects digestion of other dietary components
 - c- supplementation of diet with excess amount is recommended
 - d- excess amount can decrease the absorption of fat soluble vitamins
 - e- its serves as a carrier of micronutrients



- 26- which one of the following statements concerning pernicious anemia is incorrect :**
- a- its due to deficiency of the intrinsic factor
 - b- its associated with impaired methionine and DNA synthesis
 - c- patients are anemic and show neuropsychiatric symptoms
 - d- neurological manifestations are due to accumulation of fatty acids with even number of carbon atoms
 - e- its treated by cyanocobalamine injection or life
- 27- pantothenic acid is constituent of the coenzyme involved in**
- a- carboxylation
 - b- acylation
 - c- transamination
 - d- reduction
 - e- deamination
- 28- which one of the following coenzymes is involved in transketolase reactions?**
- a- TPP
 - b- FAD
 - c- Biotin
 - d- NAD
 - e- Tetrahydrofolate
- 29- the deficiency of which of the following vitamins is associated with neural tube defects in the fetus ?**
- a- vitamin A
 - b- vitamin B
 - c- vitamin C
 - d- vitamin D
 - e- folic acid
- 30- which one of the following statements concerning the biologic value of protein is incorrect:**
- a- its low for protein from plants
 - b- mixing wheat with kidney beans might improve it
 - c- its measured on a relative scale, with milk proteins scored at 100
 - d- its low for gelatin
 - e- its measure of quality of proteins



PART III\ True & False

- 1- Vit D occur naturally in fatty fish, liver. And egg yolk.
- 2- Vit C is required for the hydroxylation of glycine ...
- 3- High dose of vit A is contraindication in pregnancy.
- 4- Riboflavin is readily destroyed UV ray
- 5- High fiber diet increases the frequency of hypoglycemia
- 6- Retinoic acid derivative (isotretinoin) is used for treatment of psoriasis and skin aging.
- 7- Com oil contain highest percent of monounsaturated fat
- 8- Estimation of plasma ferritin is an index of iron storage of the ...
- 9- Retinoic acid acts on intracellular receptor as a hormone

PART III\ STEM

1- 1) Regarding vitamins

- a- A) significant amount of vit B12 are stored in the body
- b- B) the requirement of pyridoxine is increased by high intake protein
- c- C) excessive intake of vit A lead to xerophthalmia
- d- D) osteomalacia is characterized by decreased collagen synthesis and complete mineralization of bone

2- which one of the following is/ are a precursor of vitamins:

- a- Beta-carotene
- b- methylcobalamine
- c- 7-dehydrocholesterol
- d- phylloquinone

3- 3) vitamins containing sulfur is/are:

- a- biotin
- b- pantothenic acid
- c- thiamine
- d- pyridoxine

4- vit A deficiency may lead to :

- a- blindness
- b- xerophthalmia
- c- corneal ulceration
- d- megaloblastic anemia



- 5- **concerning the importance of minerals**
- a- sodium is important for teeth formation
 - b- cobalt is an important content of vit B12
 - c- Calcium is important for thyroid hormone synthesis
 - d- iron is a constituent of hemosiderin

شكر لـ Dr. DEATH

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... ولا تنسونا من دعائكم ...

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