INICET

Question Paper



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INI CET 2022 (Nov)

Question Paper

Biochemistry

(Based on Memory Recall)

Q1. Patient with reduced level of HDL ABCA1 quotation what is the diagnosis?



A) Abetalipaprotenemia
B) Tangier's disease
C) Apolipaprotienemia
D) Wolman's disease

Correct Answer : B

Q2. Refsum's diseases is due to :

A) Absence of Alpha oxidation of branched chain fatty acid in peroxisomes
B) Absence of Beta oxidation of BCFA in peroxisomes
C) Absence of Alpha oxidation of BCFA in lysosomes
D) Absence of Beta oxidation of BCFA in mitochondria

Correct Answer : A

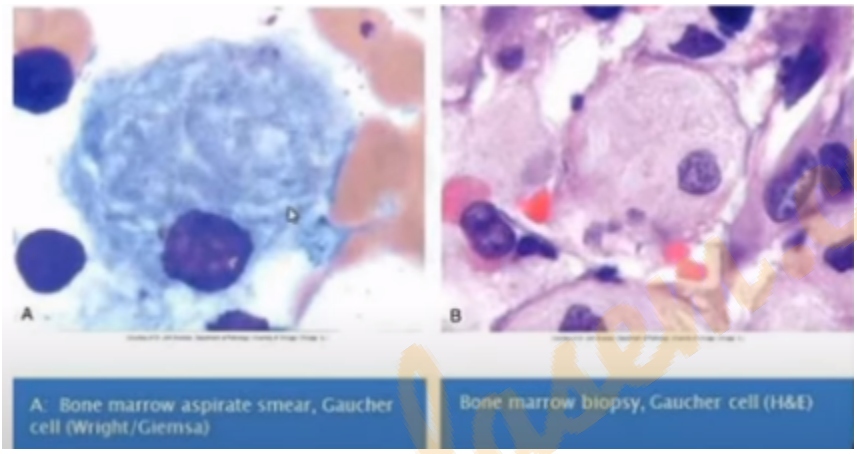
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Q3. A baby is brought with complaints of lethargy and poor feeding. During examination, it is noted that the urine had a smell of burnt sugar. This diseases occur due to the defect in

A) Branched chain keto acid dehydrogenase
B) Branched chain amino acid dehydrogenase
C) Branched chain keto acid oxidase
D) Branched chain amino acid oxidase

Correct Answer : A

Q4. A baby is being evaluated for delayed development milestones. On examination, the child has hepatosplenomegaly. Microscopy of bone marrow/peripheral smell evaluation is shown below. What is the diagnosis ?



A) Gaucher's disease
B) Niemann pick
C) Hunter's
D) Hurlers

Correct Answer : A

Q5. Muscle Glycogen Phosphorylase leaf is activated by directly or indirectly by

A) Glucose 6 phosphate
B) Camp dependent protein kinases
C) Calcium
D) Protein phosphatase

Correct Answer : C

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Q6. All are true about HMP shunt except

A) Source of ribose - 6 - phosphate
B) Source of Acetyl CoA
C) Source of NADPH
D) Utilises Ribose

Correct Answer : D

Q7. Choose the right sequence of steps in the conversion of cholesterol to the testosterone

A. 17 alpha hydroxylase
B. 20, 22 desmolase
C. 17, 20 Lyase
D. 3 beta hydroxysteroid dehydrogenase

A) B, D, A, C
B) A, C, D, B
C) B, A, C, D
D) D, A, B, C

Correct Answer : A

Q8. Adorally patient with elevated homocysteine and normal methylmalonyl acid levels. Identify diagnosis. Megaloblastic anemia present. Hb-7g% high MCV-90

A) Folate deficiency
B) B12 def
C) Biotin
D) B2

Correct Answer : B

Q9. Which of the following tissue are dependent on insulin for glucose uptake

1. Pancreas
2. Brain
3. Muscles
4. Adipose tissue

A) 1,2,3,4
B) 2,3,4
C) 3,4
D) 4 alone

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Correct Answer : C

Q10. Consider the following enzymes.

1. **Glutathione peroxidase**
2. **Glutathione synthetase**
3. **Deiodinase**
4. **Thioredoxin reductase**

Which of the following enzymes used Selenocysteine?

A) 1,3,4
B) 1,2,3
C) 2,3,4
D) 1,2,4

Correct Answer : A

Q11. Which of the following statement is correct

1. **Tm increases with more G-C**
2. **Tm decreases with more G-C**
3. **Tm increases with more A-T**
4. **No relation of GC & A-T pair with Tm**

A) 1,2,3,4
B) 2,3
C) 2 only
D) 1 only

Correct Answer : A

Q12. Zellweger is a defect in biogenesis of

A) Peroxisomes
B) Lysosome
C) Mitochondria
D) Nucleus

Correct Answer : A

Q13. True about the action of enhancing gene expression?

A) Recruiting chromatin and modifying regulatory mechanisms
B) Only when in close conjugation with promoter region
C) Only when in upstream of promoter region
D) They are very specific to the gene

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Correct Answer : A

Q14. Long term glycemic control in patients with hemolysis, is assessed by fructosamine. Fructosamine is a glycated product of

A) fructose
B) urea
C) glycosaminoglycans
D) albumin

Correct Answer : D

Q15. The signaling sequence in a type 2 membrane protein with N-terminal facing cytoplasm is located in?

A) Inside the membrane
B) at the c - terminal
C) both inside the membrane and at C terminal
D) at the n terminal

Correct Answer : A

Q16. A: Mousy body odour in PKU
B: Tyrosine, dopamine and norepinephrine are decreased in PKU

A) A and R are true and R is the correct explanation
B) A and R are true, R is not the correct explanation for A
C) A is true R is false
D) Both A & R are false

Correct Answer : B

Q17. True about sirtuins are all except

A) Increase the life span
B) stimulated by nicotinamide
C) Increase insulin sensitivity and support like glucose metabolism
D) It has his tone deacetylase activity and causes chromatin condensation

Correct Answer : B

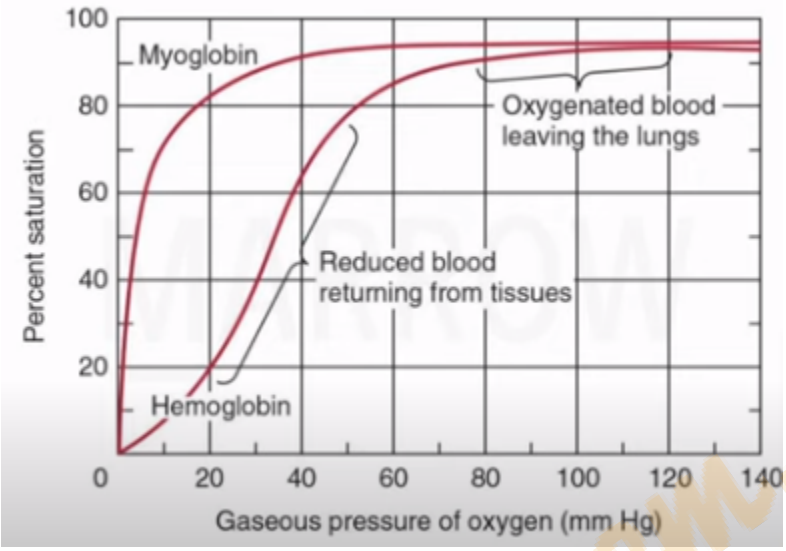
Q18. 2,3 BPG causes uploading of oxygen to tissues because

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A) Decreases ATP production and breaks the line between globin chain
B) It increases ATP production
C) Binds to central cavity of hemoglobin by histidine residues and favour Salt Bridge formation
D) Inhibit Taut state

Correct Answer : C

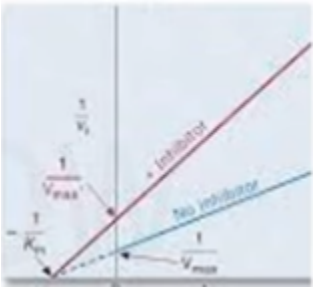
Q19. Identify the left curve, the right curve if adult hemoglobin



A) Fetal hemoglobin
B) CO poisoning
C) Acidosis
D) Myoglobin

Correct Answer : D

Q20. Identify the graph



A) Competitive inhibition
B) Non competitive inhibition
C) Uncompetitive inhibition

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D) Allosteric inhibition

Correct Answer : B

Q21. Burnt Sugar smell of urine is due to the defect of?

A) Phenylalanine Hydroxylase
B) Isovaleryl CoA dehydrogenase
C) Fumarylacetoacetate Hydrolase
D) Branched chain keto acid dehydrogenase

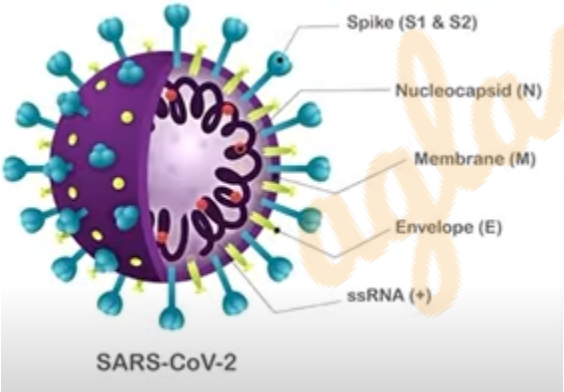
Correct Answer : D

Q22. Cystic Fibrosis is caused by which of the following deletion?

A) Tyrosine at 508
B) Phenylalanine at 508
C) Tryptophan at 508
D) Lysine at 805

Correct Answer : B

Q23. SARS CoV-2 diagnosis is done by all except?



A) RT PCR
B) Real time PCR
C) Southern Blotting
D) Immunoassays

Correct Answer : C

Q24. Selenocysteine is present in which of the following enzymes?

A) Glutathione reductase

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B) Glutathione peroxidase
C) Thioredoxin peroxidase
D) Thioredoxine oxidase A

Correct Answer : B

Q25. Fructosamine (which is used for assessing long term glycemic Control in a person with hemolysis) is a glycated product of:

A) Glycosaminoglycan
B) Urea
C) Fructose
D) Albumin

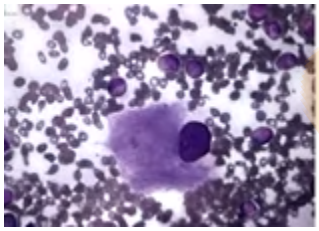
Correct Answer : D

Q26. Hooch Tragedy is related to which of the following alcohols?

A) Methyl Alcohol
B) Ethyl Alcohol
C) Ethylene glycol
D) Hypoglycin

Correct Answer : A

Q27. Identify the given image :



A) Gaucher's disease
B) Wolman's disease
C) Niemann pick disease
D) Fish eye disease

Correct Answer : A

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