

## Biology Fsc Part 1 Chapter 11 Online Test

| Sr | Questions  | Answers Choice  |
|----|--|---|
| 1  | Which one of the copper containing proteins.   | A. Ferredoxin<br>B. Plastocyanin<br>C. Plastogulnone<br>D. Cytochromes  |
| 2  | Pyruvic acid is formed from glucose in.  | A. Matrix of mitochondria<br>B. cytosol<br>C. Stroma<br>D. Chloroplast  |
| 3  | The fluid filled region of the chloroplast is.   | A. Matrix<br>B. cisternae<br>C. Stroma<br>D. cytoplasm  |
| 4  | A group of similar cells that perform specific function is called.   | A. Tissue<br>B. Organ<br>C. System<br>D. Organdies  |
| 5  | The first in the Krebs cycle is the union of acetyl CoA with Oxaloacetate to form.   | A. Citrate<br>B. Fumarate<br>C. succinate<br>D. Acetate   |
| 6  | Which statement about the chemiosmotic mechanism is not true   | A. Protons return through the membrane by way of a channel protein<br>B. Proton are pumped across a membrane<br>C. Proton pumping is associated with the respiratory chain<br>D. Has no connection with the respiratory chain |
| 7  | Which one of the following is not concerned with oxidative phosphorylation.  | A. Co enzyme Q<br>B. Cytochrome b<br>C. Cytochrome a3<br>D. Plastocyanin  |
| 8  | Chlorophyll molecule contains except.  | A. Magnesium<br>B. Iron<br>C. Calcium<br>D. Phosphorus  |
| 9  | The final product of glycolysis by is  | A. Citrate<br>B. Pyruvate<br>C. Fumarate<br>D. Malate   |
| 10 | Thylakoid membranes are involved in ATP synthesis by.  | A. Glycolysis<br>B. Dark reaction<br>C. Chemlosmosis<br>D. Photolysis   |
| 11 | Haem portion of hemoglobin is same to porphyrin ring with a difference of.   | A. Carbon atom<br>B. Hydrogen atom<br>C. Iron atom<br>D. Oxygen atom  |
| 12 | Daily rhythmic opening and closing of stomata is.  | A. Internal clock<br>B. External clock<br>C. Both internal and external clock<br>D. None of these   |
| 13 | Before pyruvate enters the citric acid cycle, it is decarboxylated, oxidized and combined with coenzyme A forming acetyl CoA, carbon dioxide and one molecule of | A. NADH<br>B. FADH <sub>2</sub><br>C. ATP<br>D. ADP   |
| 14 | Thylakoid membrane are involved is ATP synthesis by a process known as.  | A. Photolysis<br>B. Chemiosmosis<br>C. Redox process<br>D. Glycolysis   |

|    |   |  |
|----|---|--|
| 15 | Which is stimulus for cyclic phosphorylation.   | A. Low CO <sub>2</sub><br>B. Low O <sub>2</sub><br>C. Low ATP<br>D. Low NADPH                        |
| 16 | Photosynthetic pigments organized into clusters are called.   | A. Tkoids<br>B. Photosynthesis<br>C. Stroma<br>D. Granna   |
| 17 | The dark reaction occurs in.  | A. Cytoplasm<br>B. chloroplast<br>C. Stroma<br>D. Grana  |
| 18 | The percentage of photosynthesis carried out by terrestrial plants is about.                              | A. 10<br>B. 20<br>C. 30<br>D. 40   |
| 19 | Oxygen released during photosynthesis comes from.   | A. Nitrates<br>B. Carbon di oxide<br>C. Water<br>D. Glucose  |
| 20 | Plastocyanin protein contains.  | A. Iron<br>B. copper<br>C. Potassium<br>D. Magnesium   |
| 21 | Glycolysis is the breakdown of glucose up to the information of.  | A. Acetic acid<br>B. Citric acid<br>C. Oxalic acid<br>D. Pyruvic acid                                |
| 22 | In respiratory chain NAHD is oxidized by  | A. Co factor<br>B. co enzyme<br>C. Cytochrome 'b'<br>D. Cytochrome 'C'                               |
| 23 | In the absence of oxygen, yeast cells obtain energy by fermentation, producing CO <sub>3</sub> , ATP and. | A. Acetyl CO-A<br>B. Ethanol<br>C. Lactate<br>D. Pyruvate  |
| 24 | Haem portion of hemoglobin is also a porphyrin ring but containing an iron atom instead of.               | A. Nitrogen atom<br>B. Sulphur atom<br>C. Magnesium atom<br>D. Potassium atom                        |
| 25 | Energy poor inorganic oxidized compounds are reduced to energy rich carbohydrates during.                 | A. Respiration<br>B. Photosynthesis<br>C. Growth<br>D. Development                                   |
| 26 | End product of an aerobic respiration in yeast.   | A. Lactic acid<br>B. Methyl alcohol<br>C. Ethyl alcohol and CO <sub>2</sub><br>D. Ethyl alcohol only |
| 27 | Quantitative study of energy relationship in biological system is called.                                 | A. Bioenergetics<br>B. Biodegradation<br>C. Biosynthesis<br>D. Biotechnology                         |
| 28 | The moment of plants when carbon di oxide required by photosynthesis is termed as.                        | A. Compensation point<br>B. Homeostasis<br>C. Chemisoris<br>D. Action spectrum                       |
| 29 | Chlorophyll 'a' is  | A. Yellow green<br>B. Orange green<br>C. Blue green<br>D. Green black                                |
| 30 | Van Niel hypothesized that source of oxygen during photosynthesis is.                                     | A. Water<br>B. NADP<br>C. Chlorophyll<br>D. Carbon di oxide  |
| 31 | Acetic acid on entering the mitochondrion unites with co enzyme A to form                                 | A. Active acetate<br>B. Fumarate<br>C. Pyruvic acid<br>D. Alpha ketoglutarate                        |
| 32 | Photosynthetic pigments are the substances that absorb visible light having wave length.                  | A. 150-340 nm<br>B. 230-450 nm<br>C. 380-750 nm  |

|    |  |   |
|----|--|---|
|    |  | <p>C. 680-700 nm</p> <p>D. 350-780 nm</p>   |
| 33 | Each mesophyll cell of leaf has chloroplast about.   | <p>A. 10-20</p> <p>B. 20-80</p> <p>C. 20-100</p> <p>D. 100-110</p>  |
| 34 | In the citric acid cycle acetyl CoA reacts with oxaloacetate to form                                   | <p>A. Pyruvate</p> <p>B. ATP</p> <p>C. NADH</p> <p>D. Citrate</p>   |
| 35 | Magnesium of chlorophyll is replaced in hemoglobin by.   | <p>A. Calcium</p> <p>B. Iron</p> <p>C. Potassium</p> <p>D. Phosphorus</p>   |
| 36 | pH gradient drives the formation of ATP across membrane in the process called.                         | <p>A. Respiration</p> <p>B. Chemiosmosis</p> <p>C. Conduction</p> <p>D. Calvin cycle</p>  |
| 37 | When deprived of oxygen, yeast cells obtain energy by fermentation, producing carbon dioxide, ATP, and | <p>A. Acetyl CoA</p> <p>B. Ethyl alcohol</p> <p>C. Lactate</p> <p>D. Pyruvate</p>   |
| 38 | The breaking of terminal phosphate of ATP releases energy of about.                                    | <p>A. 4.5 Kcal</p> <p>B. 6.5 Kcal</p> <p>C. 7.3 Kcal</p> <p>D. 3.7 Kcal</p>   |
| 39 | Which one is not the phase of Calvin cycle.  | <p>A. Carbon fixation</p> <p>B. Reduction</p> <p>C. Regeneration of CO<sub>2</sub> acceptor</p> <p>D. Phosphorylation</p>   |
| 40 | Chlorophyll 'a' of photosystem I absorbs maximum light of.   | <p>A. 670 nm</p> <p>B. 700 nm</p> <p>C. 680 nm</p> <p>D. 690 nm</p>   |
| 41 | Carbon di oxide enters the leaves through.   | <p>A. epidermis</p> <p>B. Cuticle</p> <p>C. Stomata</p> <p>D. Air space</p>   |
| 42 | The electron transport chain system play role in generation of ATP by.                                 | <p>A. Photosynthesis</p> <p>B. Chemiosmosis</p> <p>C. Dark reaction</p> <p>D. Photosynthesis</p>  |
| 43 | Pyruvic acid is produced as a result of.   | <p>A. Glycolysis</p> <p>B. ETC cycle</p> <p>C. Calvin cycle</p> <p>D. Krebs cycle</p>   |
| 44 | Carbon fixation refers to the initial incorporation of   | <p>A. Carbon</p> <p>B. Oxygen</p> <p>C. CO<sub>2</sub></p> <p>D. Hydrogen</p>   |
| 45 | During the dark reaction of photosynthesis, the main process that occurs is                            | <p>A. Release of oxygen</p> <p>B. Energy absorption by the chlorophyll</p> <p>C. Adding of hydrogen to the carbon dioxide</p> <p>D. Formation of ATP</p>  |
| 46 | When a green plant performs photosynthesis at it maximum rate  | <p>A. The rate of water loss in high</p> <p>B. The water content of the plant will be low</p> <p>C. The energy content of the plant will be low</p> <p>D. The energy content will be unaffected</p> |
| 47 | Accessory photosynthetic pigment xanthophyll's are   | <p>A. Green in colour</p> <p>B. Red in colour</p> <p>C. Yellow in colour</p> <p>D. None of these</p>  |
| 48 | Which metal atom is present in chlorophyll.  | <p>A. Cu</p> <p>B. Fe</p> <p>C. Mg</p> <p>D. K</p>  |

|    |   |  |
|----|---|--|
| 49 | When equal intensities of light are given more photosynthesis takes place in spectrum.  | B. Orange<br>C. Red<br>D. Green  |
| 50 | Glycolysis  | A. Produces no ATP<br>B. It is same as fermentation<br>C. Takes place in the mitochondria<br>D. Reduces two molecules of NAD <sup>+</sup> For every glucose molecule processed |
| 51 | The first step of krebs cycle is union of acetyl co A with oxaloacetate to form.  | A. Isocitrate<br>B. Citrate<br>C. Malate<br>D. Alpha ketoglutarate   |
| 52 | chlorophylls are insoluble in.  | A. Alcohol<br>B. Acetone<br>C. Carbon tetra chloride<br>D. Water   |
| 53 | Glycolysis is the break down of   | A. Fructose<br>B. Glucose<br>C. Lactose<br>D. Maltose  |
| 54 | the light falling on leaf surface is absorbed about.  | A. 1%<br>B. 25%<br>C. 50%<br>D. 100%   |
| 55 | The mechanism for ATP synthesis is  | A. Chemosynthesis<br>B. Photosynthesis<br>C. Chemiosmosis<br>D. Phosphorylation  |
| 56 | Absorption of blue light is maximum at  | A. 430 nm<br>B. 550 nm<br>C. 750 nm<br>D. 670 nm   |
| 57 | Energy poor inorganic oxidized compounds are reduced to energy rich carbohydrates during.                                     | A. Photosynthesis<br>B. Growth<br>C. Respiration<br>D. Development   |
| 58 | the hypothesis that plants split water as a source of hydrogen was given by.  | A. Van Niel<br>B. Kreb<br>C. Pasteur<br>D. Calvin  |
| 59 | Photosynthesis II has the form of chlorophyll a which absorb best light of  | A. 670 nm<br>B. 680 nm<br>C. 690 nm<br>D. 700 nm   |
| 60 | Total photosynthesis is carried out by the terrestrial plants in about.   | A. 15%<br>B. 10%<br>C. 20%<br>D. 22%   |
| 61 | Conversion of one pyruvic acid into one acetyl Co A gives off one molecule of.  | A. ATP<br>B. Oxygen<br>C. Water<br>D. Carbon di oxide  |
| 62 | The number of oxidation steps during one Krebs. cycle are.  | A. 02<br>B. 03<br>C. 04<br>D. 05   |
| 63 | The moment in plants when carbon di oxide released by respiration equal the quantity required by photosynthesis is termed as. | A. Compensation point<br>B. Chemlosmoris<br>C. Action spectrum<br>D. Homeostasis   |
| 64 | The first action spectrum was obtained by.  | A. T.W. Engelmann<br>B. Van Neil<br>C. Melvin Calvia<br>D. Ernst Haeckel   |
| 65 | The product of succinic acid by the action of enzyme is.  | A. Citric acid<br>B. Pyruvic acid<br>C. Malonic acid<br>D. Fumaric Acid  |
| 66 | In the first step of citric acid cycle, acetyl CoA reacts with oxaloacetate to form   | A. Pyruvate<br>B. Citrate<br>C. NADH   |

|    |   |  |
|----|---|--|
|    |   | D. ATP   |
| 67 | Co-enzyme Q is in turn oxidized by cytochrome   | A. a<br>B. a <sup>3</sup><br>C. a <sup>2</sup><br>D. b   |
| 68 | Carbon dioxide enters the leaves through  | A. Stomata<br>B. Stroma<br>C. Guard cells<br>D. Cuticle  |
| 69 | From one pyruvate passing through Krebs cycle how many FADH <sub>2</sub> molecules are formed.                    | A. 01<br>B. 02<br>C. 03<br>D. 04   |
| 70 | The power house of the cell is  | A. Ribosome<br>B. RER<br>C. SER<br>D. Mitochondria   |
| 71 | A kind of chemicals link between anabolism and catabolism.  | A. ATP<br>B. Protean<br>C. Glucose<br>D. None of these   |
| 72 | Magnesium is an important nutrient ion in green plants as it is an essential component of                         | A. Cell sap<br>B. Protein<br>C. Chlorophyll<br>D. Glucose  |
| 73 | From one pyruvate passing through Krebs's cycle FADH <sub>2</sub> molecules are formed.                           | A. 1<br>B. 2<br>C. 3<br>D. 4   |
| 74 | During respiratory chain co enzyme Q is oxidized.   | A. Cytochrome a<br>B. Cytochrome b<br>C. Cytochrome c<br>D. Cytochrome a <sub>3</sub>  |
| 75 | Calvin cycle is also known as   | A. C <sub>1</sub> Pathway<br>B. C <sub>2</sub> pathway<br>C. C <sub>3</sub> Pathway<br>D. C <sub>4</sub> Pathway   |
| 76 | The amount of glucose into ATP during an aerobic respiration is.  | A. 1%<br>B. 2%<br>C. 3%<br>D. 4%   |
| 77 | Engelmann used in his experiment in 1883  | A. sprogrya<br>B. Aerobic bacteria<br>C. Anaerobic bacteria<br>D. Both a and b   |
| 78 | The citric acid cycle   | A. Takes place in the mitochondrion<br>B. Produces two molecules of NAD <sup>+</sup> for every glucose molecule processed<br>C. It is same as fermentation<br>D. Has no connection with the respiratory chain                        |
| 79 | Pyruvic acid the end product of glycolysis before entering the krebs cycle is changed into a two carbon compound. | A. Citric acid<br>B. Acetic acid<br>C. succinic acid<br>D. None of these   |
| 80 | One of the following is not an accessory pigment.   | A. chlorophyll 'a'<br>B. Xanthophyll<br>C. Carotenes<br>D. Chlorophyll 'b'   |
| 81 | Which statement about ATP is not true   | A. It is used as an energy currency by all cells<br>B. It is formed only under aerobic condition<br>C. Some ATP is used to drive the synthesis of storage compounds<br>D. It provides energy for many different biochemical reaction |
| 82 | Which statement about oxidative phosphorylation is not true   | A. Its functions can be served equally well by fermentation<br>B. In eukaryotes, it takes place in mitochondria<br>C. It is brought about by the   |

chemiosmotic mechanism  
D. It is the formation of ATP during  
the operation of the respiratory chain

83 One of the accessory photosynthetic pigments carotenes are mostly.

- A. Green to yellow
- B. Red to orange
- C. Yellow to Orange
- D. Orange and Red