A picture containing text, clipart

Description automatically generatedThis work is copyrighted under the [cc.by 4.0 license](https://creativecommons.org/licenses/by/4.0/) and was created by M.F. Sega as part of the ALG18 and modified for ALG25.

CHAPTER 5 – PHOTOSYNTHESIS

1. Which category do plants belong to?
   1. chemotrophs
   2. heterotrophs
   3. synthesizers
   4. autotrophs
2. The leaf structure that allows gas exchange is:
   1. stomata.
   2. chloroplast.
   3. grana.
   4. stroma.
3. Grana are stacks made of:
   1. cristae.
   2. stomata.
   3. thylakoids
   4. vacuoles.
4. Where is chlorophyll present in a cell?
   1. stroma
   2. chloroplast
   3. cytoplasm
   4. cristae
5. Chlorophylls a &b reflect \_\_\_\_\_\_\_\_ visible light:
   1. red
   2. yellow
   3. green
   4. blue
6. The source of Oxygen released during photosynthesis is:
   1. water.
   2. glucose.
   3. carbon dioxide.
   4. ATP
7. The effect of light energy on the chlorophylls’ electrons is:
   1. Damage
   2. Sharing
   3. Protection
   4. Transfer
8. Which one of the wavelengths of light has the most energy:
   1. 700nm
   2. 670nm
   3. 550nm
   4. 370nm
9. The electrons from Photosystem II will first pass through:
   1. PSI
   2. ETC
   3. ATP-synthase
   4. O2
10. The result of Photosystem I is making:
    1. ATP
    2. ADP
    3. NADP+
    4. NADPH
11. In photosynthesis water is important because replenishes \_\_\_\_’s lost electrons:
    1. PSII
    2. PSI
    3. PSIII
    4. PSI & II
12. ETC is located in:
    1. Thylakoid membrane
    2. Thylakoid lumen
    3. Chloroplast inner membrane
    4. Chloroplast outer membrane
13. ETC transports protons H+ into:
    1. thylakoid lumen
    2. thylakoid membrane
    3. chloroplast stroma
    4. chloroplast intermembrane space
14. The driving force for ATP-synthase is:
    1. The protons from the thylakoid lumen
    2. The protons from the stroma
    3. The electrons from the lumen
    4. The electron from the stroma
15. In the chloroplast ATP is made by:
    1. ETC
    2. ATP-synthase
    3. Chlorophyll
    4. Thylakoid
16. The light reactions occur in the:
    1. stroma
    2. stomata
    3. cytoplasm
    4. thylakoid membranes
17. Which of the following is *not* part of the light reaction?
    1. carbon fixation
    2. break down of water
    3. formation of ATP
    4. formation of waste O2
18. In the chloroplast, Calvin cycle happens in:
    1. stomata.
    2. thylakoid.
    3. matrix.
    4. stroma
19. What is the source of energy for the Calvin cycle?
    1. light
    2. NADPH
    3. ATP and NADPH
    4. ATP
20. The correct order of Calvin cycle stages is:
    1. Reduction, fixation, regeneration
    2. Reduction, regeneration, fixation
    3. fixation, regeneration, reduction
    4. Fixation, reduction, regeneration
21. Which of the following molecules are the result of photosynthesis?
    1. CO2 and chlorophyll
    2. sugar and O2
    3. O2 and CO2
    4. sugar and CO2
22. How many molecules of CO2 are needed to make 1 glucose:
    1. 1
    2. 3
    3. 5
    4. 6
23. What is the reverse of the photosynthesis process:
    1. Transpiration
    2. Respiration
    3. Excretion
    4. Circulation
24. As an adaptation to a hot environment, plants will close their:
    1. Stroma
    2. Matrix
    3. Stomata
    4. Cells
25. Photosynthesis in bacteria takes place in:
    1. Thylakoids
    2. Plasma membrane
    3. Chloroplasts
    4. Cytoplasm