BIOLOGY FORM TWO NECTA 2005

Solutions from: Maktaba by TETEA

By Yohana Lazaro

1.

i	ii	iii	iv	v	vi	vii	viii	ix	x
D	D	A	B	C	B	C	E	A	E

2.

i	ii	iii	iv	v	vi	vii	viii	ix	x
True	False	True	False	True	True	True	True	True	True

3.

i	ii	iii	iv	v	vi	vii	viii	ix	x
H	S	N	D	P	E	Q	J	A	L

4(a)

Plant Cell	**Animal Cell**
Have plastids (e.g. chloroplast)	Do not have plastids
Have a cell wall (cellulose)	Do not have a cell wall
Have a large central vacuole	Have small temporary vacuoles (if any)
Store excess glucose as starch	Store excess glucose as glycogen
Have plasmodesmata	Do not have plasmodesmata
Do not have centrioles	Have centrioles
Do not have cholesterol in cell membrane	Have cholesterol in cell membrane
Generally have a fixed, regular shape	Generally have an amorphous shape

(b)First aid is an immediate assistance given to a victim before taken to hospital.

(c)


Gauze roll and pads
Instant cold pack
Elastic bandages
Bandages
Emergency blanket
Thermometer
Antiseptic wipes
Adhesive tape
Safety pins
Triangular bandage
First aid manual
Scissors
Gloves
Tweezers
Emergency contact information/ medical information for family members
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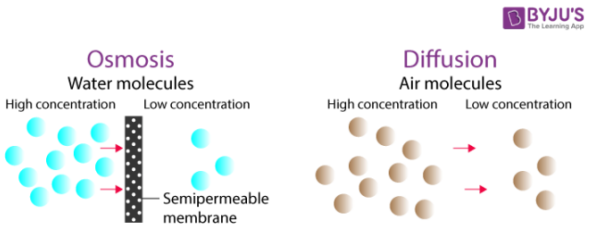
(d)


IF YOU SEE SOMEBODY FAINTING
• Place the patient on his/her back, facing up
• If the individual is breathing raise their legs about 12 inches a
heart level to restore blood flow to the brain
• Try to loosen all belts, ties, collars and restrictive clothing
• If they remain unconscious for more than a minute put the patient in recovery position and get emergency medical help
• Check for breathing, coughing or movement. If you cannot detect any, start CPR. Continue giving CPR until either help arrives or the patient starts breathing on her/his own.
• If the individual was injured and is bleeding after the fall, apply direct pressure to control the bleeding.

5(a)(i)


BYJU'S
Osmosis
Water molecules
High concentration
Low concentration
Semipermeable membrane
Diffusion
Air molecules
High concentration
Low concentration

(ii)

1(a)(ii) Differences between gaseous exchange and aerobic respiration

Gaseous exchange	Aerobic respiration
- Oxygen simply moves into the organism and CO_2 moves out;	oxygen is used to oxidise glucose
- process takes place outside the cells	process occurs inside the cells
- physical process	chemical process
- no energy is released	energy is released
- no enzymes involved	enzymes involved

(b)

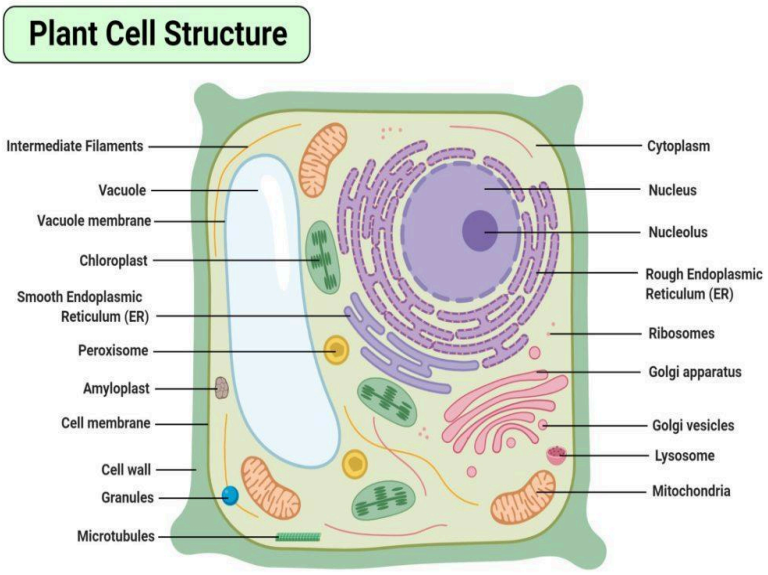


Figure: Plant Cell Structure, Image Copyright © Sagar Aryal, www.microbenotes.com

6(a)

Food lacking in diet	**Deficiency disease.**
Calcium	Hypocalcemia
Vitamin A	Night blindness
Vitamin B^1	Beriberi
Iodine	Goitre
Iron	Anaemia

Vitamin B^3	Pellagra
Vitamin D	Rickets

(b) Elements of carbohydrates are:-

-carbon

-oxygen

-hydrogen

7(a)(i) bacteria

(ii)kingdom Monera

(b)A chromosome

B cell wall

C cytoplasm

D flagella

(c)

1. Bacteria are involved in production of many food products such as yogurt, cheese, pickles, etc.

2. Bacteria break down waste material so that our environment is not permanently cluttered with garbage, dead bodies, etc.

3. Bacteria are responsible for the production of important essential compounds that are necessary for life such as vitamin K production by E. coli in the gut

DISADVANTAGES:

1. Some bacteria cause infections or produce toxic substances that are a threat to life and/or health.

2. Bacteria cause spoiling of food so that it does not keep as long as we may desire.

8(a)(i) anaerobic Respiration.

(ii)muscles

(iii) muscles clamps.

(iv)0 - 60 minutes.

(v)

4. Anaerobic Respiration

In anaerobic respiration, only glycolysis occurs, so only 2 ATP are made

In animals

Glucose ⟶ Lactic Acid

In plants & fungi

Glucose ⟶ Ethanol + Carbon Dioxide

9. WASTE DISPOSAL.

WASTE is the unwanted materials for use.

Waste disposal is the process of getting rid of waste materials.

-Types of waste materials

-solid wastes.eg wood,plastics, papers,etc

-liquid wastes.eg urine,water from industries,used oil,etc.

-gaseous wastes. Like gasea from industries.

PROPER WAYS OF DISPOSING WASTES

-by landfills

-by pit latrine

-locating special areas for disposing the waste materials.

IMPORTANCES OF PROPER WASTE DISPOSAL.

-makes the environment beautiful.

-prevent eruption of diseases

-prevent the climatic changes.

-helps to protect environment.

-supports recycling of waste materials as they will be available at a special area.

10.GONORRHEA.

Gonorrhea is a sexually transmitted infection (STI). It's caused by the bacterium Neisseria gonorrhoeae. It tends to target warm, moist areas of the body, including the:

urethra (the tube that drains urine from the bladder)

eyes

throat

vagina

anus

female reproductive tract (the fallopian tubes, cervix, and uterus)

Gonorrhea passes from person to person through oral, anal, or vaginal sex without a condom or other barrier method.

-SYMPTOMS.

symptoms may include:

greater frequency or urgency of urination

a pus-like discharge (or drip) from the penis (white, yellow, beige, or greenish)

swelling or redness at the opening of the penis

swelling or pain in the testicles

a persistent sore throat.

-discharge from the vagina (watery, creamy, or slightly green)

pain or burning sensation while urinating

urge to urinate more frequently

heavier periods or spotting

sore throat

pain during sexual intercourse

sharp pain in the lower abdomen

fever.

Prevention of gonorrhea

The safest way to prevent gonorrhea or other STIs is through abstinence. If you do engage in sexual activities, always use a condom or other barrier method.

It’s important to be open with your sexual partners, get regular testing, and find out if they’ve been tested.

If your partner is showing any symptoms, avoid any sexual contact. Ask them to seek medical attention to rule out any possible conditions that could be passed on.

You’re at a higher risk for acquiring gonorrhea if you’ve already had it or any other STIs. You’re also at a higher risk if you have multiple sexual partners or a new partner.