

BIOLOGY FORM TWO NECTA 2007

Solutions from: [Maktaba by TETEA](https://maktaba.tetea.org)

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1.

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

2.

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

3.

i	ii	iii	iv	v	vi	vii	viii	ix	x
Q	S	O	A	N	K	I	E	G	C

4(a) MUSHROOM

(b) A-pileus/cup

B-gills

C-Ring

D-stalk

E-mycellium

(c)

Fungi are useful:

1. Decay dead material and are important to recycle nutrients in the soil
2. Decompose sewage
3. Are used to make the antibiotic penicillin
4. Are eaten e.g. mushrooms
5. Yeast is useful to make bread, wine and beer

4(a) Breathing is the process of taking in oxygen and out carbon dioxide.

(b) fish-gills

-cat- lungs

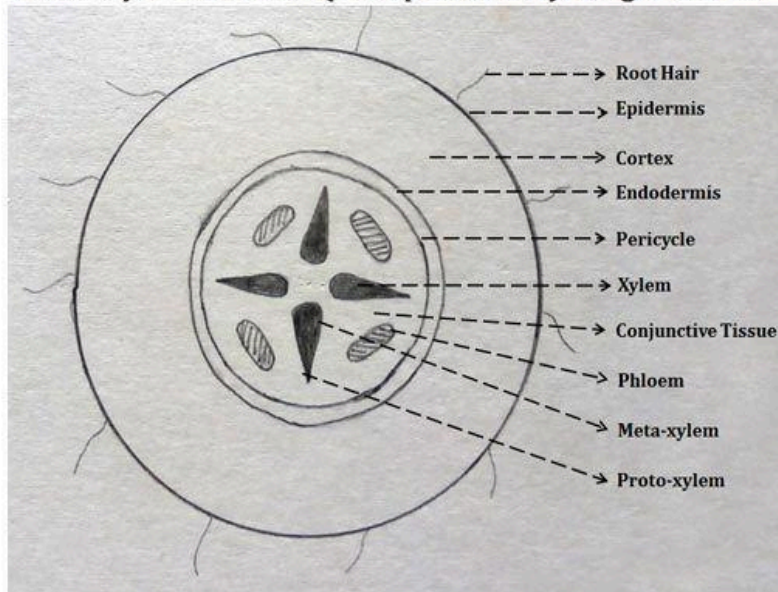
-grasshopper-tracheal tube

-green plants - stomata

-spider-lung book

6(a)

Anatomy of Dicot Root (*Tinospora, Ficus*): Diagrammatic



(b)(i)An ecosystem is a geographic area where plants, animals, and other organisms, as well as weather and landscapes, work together to form a bubble of life.

(ii)habitat summarises the array of resources, physical and biotic factors that are present in an area, such as to support the survival and reproduction of a particular species.

(iii)Biotic factors are the living parts of an ecosystem.

7(a)biological classification is the classifying groups of biological organisms based on shared characteristics.

(b)

Artificial C.S vs Natural C.S.	
Artificial C.S. : <ol style="list-style-type: none">1. Non Evolutionary Features2. Phylogenetically Not related3. Hereditary Not similar4. One or very Few Characters5. Stable but6. Limited information7. Difficult to identify <p>Example: <u>Carolus Linnaeus' A.C.S of Plants</u> (24 Classes of Plant kingdom on the basis of number, size, length & union of Stamens)</p>	Natural C.S. : <ol style="list-style-type: none">1. Evolutionary Features2. Phylogenetically related3. Hereditary Similar4. Almost all Characters5. Not Stable ; may change6. Plenty of information7. Easy to identify <p>Example: <u>Bentham and Hooker's Classification</u> (Genera Plantarum)</p>

(c)

Organism	Kingdom	Phylum
Man	Animalia	Chordata
Maize	Plantae	Monocotyledonae
Yeast	Fungi	Zygomycota
Fern	Plantae	Pteridophyta

8(a)good manner are the actions acceptable to the society.

(b)principles of good manner

Saying “please” and “thank you.” It shows gratitude for the things others do for you.

Making introductions. Always introduce yourself to adults who come visit, and introduce friends to each other.

Covering your mouth when you sneeze or cough. Germs are gross!

Not picking your nose in public. No one wants to see that.

Greeting visitors and say goodbye to them. Even if you feel shy, greetings and goodbyes are important.

Asking for things instead of reaching for them. It’s disruptive when children reach across the table during mealtimes.

Knocking on doors before entering a room. Especially the bathroom door!

Responding when an adult asks how you are. It’s even better if you ask her how she is, too.

Not interrupting when grownups are talking. Wait for your turn, no matter how impatient you feel.

Saying “Excuse me” when you need to interrupt a conversation. Sometimes it’s an emergency, but even so, please be polite.

Saying “Excuse me” if you bump into someone. Make sure they know you didn’t do it on purpose.

Not using electronics at the dinner table. Show others that their presence is important to you.

Sitting attentively through plays, movies, and musical performances. Show proper respect, even if you’re bored.

Washing your hands before meals. It’s good etiquette and good hygiene too.

Not commenting on personal appearance. It hurts feelings unnecessarily.

Holding doors open for others. No one likes to have the door slam on them as they enter a room.

Keeping burps silent. And remember to say “Excuse me” afterward.

Offering to help adults if they need it. Help wash someone’s car or carry their groceries.

Giving a genuine apology when needed. Sometimes, the other person needs to hear you say, “I’m sorry.”

Asking to be excused at the end of a meal. Instead of just getting up to leave, say, “Please may I be excused?”

(c) Immunity is the ability of the body to resist diseases.

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.

10. RAPE

Rape is a type of sexual assault usually involving sexual intercourse or other forms of sexual penetration carried out against a person without that person's consent.

Causes of rape includeinclude military conquest, socioeconomics, anger, power, sadism, traits, ethical standards, laws, and evolutionary pressures.

Bruising

Bleeding (vaginal or anal)

Difficulty walking

Soreness

Broken or dislocated bones

Sexually transmitted infections and diseases

Pregnancy.

PREVENTION BOF RAPE

SAFETY

On the Street

Travel in well-lit, well-traveled areas.

If possible, walk in pairs.

Walk facing traffic.

Plan your route ahead of time.

Know your neighborhood - be aware of nearby businesses, their hours of operation and their locations.

Avoid shortcuts, bushy areas, and alleyways.

Dress for ease of movement.

If possible, don't carry a purse.

Don't burden yourself with bulky packages or belongings.

Walk assertively and maintain a sharp awareness of your surroundings.

If you sense you are being followed, immediately cross to the opposite side of the street and head for the nearest open business or occupied dwelling.

When seeking help from the occupant of a residence, yell fire as opposed to help, rape, or murder, and use any means necessary to draw attention to the situation.

In the Home

Install good locks on doors and windows and use them.

Only put your last name on your mailbox, or consider inventing roommates.

If you choose to list your phone number, only list your first initial and last name. Never include your address in the telephone book.

Install an eye-viewer in your door.

Never automatically open your door without knowing who is on the other side. Talk through the door.

Don't rely on chain latches and screen doors for security as they are no barrier to intruders.

Instruct your children in safe door and telephone techniques.

Don't answer questions asked over the telephone.

Ask for identification from service people. If still not satisfied, call the business and verify that the visit is a legitimate one.

Have someone present whenever a man is going to be performing a service in your home.

In Your Vehicle

Have your keys in your hand when going to and from your vehicle.

Lock the doors and roll up the windows whenever you leave your vehicle.

Keep the doors and windows locked whenever you are in your vehicle.

Prior to entering your vehicle, always check both under the car and behind the front seat.

Park in well-lit, well populated areas.

Be aware of your surroundings as you walk through parking lots - suspects often hide between parked cars.

If your car breaks down, raise the hood and turn on the emergency flashers. Remain in your locked car until help arrives. If someone stops to offer assistance, ask them to send a tow truck or to contact local law enforcement. Talk through the window.

If you are being followed, don't turn into your own driveway. Head for the nearest populated area or open business.

In a Social Situation

When first meeting a new friend, exchange phone numbers, not addresses.

Keep someone apprised of your whereabouts when dating a man for the first time.

It is a good idea to refrain from going to bars and clubs alone. However, should you choose to do so, have your own transportation available, and use it.

Don't allow alcohol or drugs to cloud your common sense.

If a man persists in asking for your phone number, and you feel it would cause a problem should you refuse, give him a phony number (i.e., a recorded message).

Know what your personal social standards are and stick to them. Don't allow your judgment to be overruled by an aggressive pursuer.

ADDITIONAL SAFETY TIPS

Don't enter elevators with a lone man. If you do end up alone with a man, stand next to the buttons and push them all if attacked.

When at the bank, don't discard deposit slips in the available receptacle - they contain information (i.e., name and address) which you would not want falling into the hands of strangers.

Consider printing your work phone number as opposed to your home phone number on checks.

SELF-DEFENSE – PASSIVE OR ACTIVE

For years a certain amount of controversy has surrounded the issue of whether or not a woman should resist a sexual assault. Studies support points of view ranging from strong resistance to total submission. There is no hard and fast rule when it comes to self-defense. Ultimately, the decision rests with the individual and should be based on considerations such as the location (isolated vs. populated), whether or not a weapon is involved, the victim's physical capabilities, and the perceived chance of success.

PASSIVE SELF-DEFENSE

Talking your way out of a situation.

Telling the rapist you're pregnant, menstruating, or afflicted with a communicable disease can be an effective ploy.

Faking submission and waiting for an appropriate opportunity to make an escape.

Urinating, defecating, or vomiting.

NOTE: Initiating a passive defense may not work in all situations. If it fails, you can then escalate to an active defense.

ACTIVE SELF-DEFENSE

If you choose to fight, fight effectively. A half-hearted attempt at resistance could be worse than no resistance at all.

Before initiating a physical defense, you should be aware of your capabilities - both physical and mental. If you cannot imagine yourself exerting whatever force necessary to ward off an attacker, then perhaps a more passive approach is more viable for you.

Have some idea of what you intend to do should you be attacked. If you have given prior thought to the matter, you will be better prepared to avoid debilitating panic.

Self-defense classes aimed at teaching everyday defensive maneuvers can help build confidence.

Don't underestimate the power of your voice as an effective defensive tool. If you feel your voice may fail you when you need it most, practice screaming.

SELF-DEFENSE DEVICES

Whistle: A good attention-getting device. However, whistles can be difficult to blow when breathless or frightened. Should you carry a whistle, never wear it on a string around your neck or wrist.

Shrill Alarm: Another good-attention getting device. Shrill alarms are compressed air or gas and emit a shrill piercing sound.

Mace: A chemical irritant which causes burning and irritation of the eyes, nose, and skin. Mace will not permanently incapacitate an attacker. It is primarily useful as a temporary diversion. Because mace is considered a non-lethal weapon, you must attend a class and obtain a permit in order to legally purchase and carry mace. While mace can be an effective defensive device, it does not work in all situations. Mace has little or no effect on individuals who are seriously intoxicated, under the influence of hallucinogenic drugs, or who have a condition which affects the nerve endings. If used on a windy day or in an enclosed area, mace could affect not only the suspect, but the victim as well.

NOTE: For these devices to be useful, they must be immediately accessible should you be attacked. If left in trunks, desk drawers, or buried at the bottom of a purse, they will not help you in an emergency.