

YEKA SUB-CITY EDUCATION OFFICE GRADE EIGHT MODEL EXAM 2012 E.C

BIOLOGY EXAMINATION

NUMBER OF EXAM:60

TIME ALLOWED: 1 Hour

Instruction : choose the best answer from the given alternatives and write the letter of your choice on the given space provided.

.....1. The branch of biology which studies about heredity and identity of organism is known as-----

- A. Taxonomy B. Ecology C. Genetics D. Evolution

.....2. The deficiency diseases of vitamin B₁ (Thiamine) is called -----

- A. Scurvy B. Beriberi C. Night blindness D. Rickets

.....3. Biological knowledge is necessary in all areas of human life except -----

- A. To fight against diseases C. To produce electricity
B. To conserve natural resources D. To grow plant and raise animal

.....4. Which two cell structures are present both in plant and animal cells?

- A. Cell membrane and Cytoplasm C. Nucleus and Chloroplast
B. Cell wall and Mitochondria D. Cell wall and Ribosome

..... 5. Suppose an object is magnified by using an ocular lens of 10× and an objective lens of 10×. If the magnified size of an object is 2mm. What was the original size of an object in mm?

- A. 20 mm B. 0.02mm C. 0.2mm D. 2mm

.....6. Why do animal cells have irregular shapes when observed under a compound microscope? Because -----

- A. They have large deposits of starch C. They lack a rigid cell wall
B. They have no cell membrane D. They have large central vacuoles

.....7. Which of the following parts of a microscope control the amount of light passing through the object?

- A. Mirror B. Eye piece C. Diaphragm D. Body tube

.....8. Which one of the following bones is part of our appendicular skeletal system?

- A. Sternum B. Shoulder C. Vertebral column D. Ribs

.....9. If a given mammals has a dental formula of 3/3, 1/1, 4/4, 2/3, how many total teeth does the animal have?

- A. 52 B. 32 C. 22 D. 42

.....10 Which one of the following statements is true about the human muscular system ?

- A. The relaxation the skeletal muscles is involuntary.
B. The contraction of cardiac muscles pumps blood to the body.
C. Cardiacmuscles are found attached to the Skeleton.
D. The contraction of smooth muscles is voluntary.

.....11. Which of the following groups of plants are flowering plants?

- A. Ferns B. Gymnosperms C. Mosses D. Angiosperm

.....12.In which of the following alternatives the plant organ is correctly matched with its function ?

- A. Stem —————> manufacture of food.
B. Root —————> water and mineral absorption.
C. Flower —————> site of transpiration.
D. Leaf—————> transportation of food.

.....13 Choose the floral part which is correctly matched with its functions?

- A. Style —————> top of pistil where pollen lands on.
B. Anther —————> swollen bottom part that contains the ovules.
C. Stigma —————> brightly colored parts for attraction of insects.
D. Filament————> a thin long structure that support the anther.

..... 14. In which of the following alternatives the animal is correctly matched with its types of habitat?

- A. Fish → terrestrial animals
B. Termite → arboreal animals
C. Eagle →aerial animals
D. Monkey →aquatic animals

.....15. Which one of the following insects shows incomplete metamorphosis?

- A. Butter fly B. Grasshopper C. House fly D. Honey bee

.....16. Choose the false statements about casts of a honey bee?

- A. Female bees are worker bees in a hive.
- B. There is only one queen bee per hive.
- C. Drones develop from fertilized eggs.
- D. There is division of labor in honey bees.

.....17. Which one of the following insects cause serious damage on crops?

- A. Dark moth
- B. House fly
- C. Bees
- D. Butter fly

Answer question 18 – 19 based on the food chain in the given below

Grasses → Grass hopper → Frogs → Snakes → Hawks

.....18. Which organisms are herbivores?

- A. Hawks
- B. Grass hopper
- C. Frogs
- D. Snakes

.....19. Which organism obtains the least amount of food (energy) from the food chain?

- A. Snakes
- B. Frogs
- C. Grass hopper
- D. Hawks

.....20. The pyramid which gives the clearest general pictures of trophic relationships within a particular community is -----

- A. Ecological pyramid
- B. Pyramid of biomass
- C. Pyramid of energy
- D. Pyramid of number

.....21. Which of the following natural products is used as cosmetics in Ethiopia?

- A. Kosso
- B. Ensosila
- C. Enkoko
- D. Nechbahirzaf

.....22. In which of the following the technological instrument is correctly matched with its

biological functions?

- A. Centrifuge → to see far objects.
- B. Incubator → to keep material cold.
- C. Stethoscope → to listen to sounds produced in the heart.
- D. Sphygmomanometer → to measure temperature.

.....23. Which of the following chemical could not be classified as agro-chemical?

- A. Herbicides
- B. contraceptives
- C. pesticides
- D. fertilizers

.....24. Which one indicates the importance of biology for truism industry?

- A. Using agro chemicals
- B. Increasing food production
- C. Use of modern drugs
- D. Conservation of wild life and vegetation

.....25. What is the difference between a microscope and a hand lens?

- A. A microscope uses several lenses, but a hand lens uses a single lens.
- B. A hand lens uses several lenses, but a microscope uses a single lens.
- C. A microscope magnifies small objects, but not a hand lens.
- D. A hand lens magnifies small objects, but not a microscope .

.....26. Which one of the following is a bad farming practice?

- A. Contour farming
- B. Terracing
- C. Overgrazing
- D. Crop rotation

.....27. A natural product used for coloring hair in Ethiopia is

- A. Kosso
- B. Hinna
- C. Yemichmedhanit
- D. Ensohila

.....28. Which of the following biological devices is used to separate different components of a solution ?

- A. Stethoscope
- B. Incubator
- C. Sphygmomanometer
- D. Centrifuge

.....29. Which of the following unicellular organism can reproduce by asexually binary fission?

- A. Yeast cell
- B. Amoeba
- C. Euglena
- D. Paramecium

.....30. Which one of the following is not the contribution of biology to community health ?

- A. Prevention of diseases
- B. Production of fertilizer
- C. Promoting family planning practice
- D. Training healthy professional

.....31. Unicellular algae such as chlorella look like a plants. This is because the unicellular algae are ----

- A. Heterotrophic organisms
- B. Unicellular organisms
- C. Aquatic organisms
- D. Photosynthetic organisms

.....32. Which of the following unicellular organisms is correctly matched with its locomotion structure?

- A. Bacteria → flagella
- B. Amoeba → cilia
- C. Euglena → pseudopodia
- D. paramecium → flagella

.....33. Which one of the following statements is correct about tissues ?

- A. Epidermal tissues provide mechanical strength to plant body.
- B. Strengthen tissues involve in photosynthesis process.
- C. Tissue is a group of cells working together .
- D. Xylem tissues conduct synthesized food in plant body.

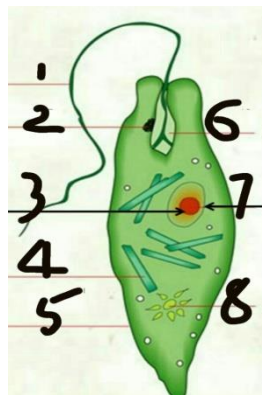
.....34. Which of the following is different from the others?

- A. Nerve tissue
- B. Epithelial tissue
- C. Epidermal tissues
- D. Muscle tissue

.....35. Which one of the following unicellular organisms is a prokaryote ?

- A. Bacteria
- B. Yeast
- C. Euglena
- D. Chlorella

Answer question 36 and 37 based on below shown diagram



.....36. The photosynthetic cellular organelle (chloroplast) of euglena shown by the number

- A. 6
- B. 1
- C. 4
- D. 2

.....37. The locomotion structure of euglena is shown by the number

- A. 1
- B. 3
- C. 7
- D. 6

.....38. Which of the following types of animal cells is correctly matched its function?

- A. Blood cells → body defense against diseases.
- B. Nerve cells → reproductive functions.
- C. Muscle cells → transmitting nerve impulse.
- D. Skin cells → material transport.

.....39. What do you call the type of sexual reproduction in paramecium ?

- A. Germination
- B. Binary fission
- C. Conjugation
- D. Sporulation

.....40. The common products of fermentation in yeast

- A. Carbon dioxide and oxygen
- B. Carbon dioxide and alcohol
- C. Lactic acid and energy
- D. Alcohol and acetic acid

.....41. Which of the following human reproductive structure represent the male and female sex organ respectively ?

- A. Urethra and uterus
- B. Scrotum and cervix
- C. Penis and vagina
- D. Testes and ovaries

.....42. Which of the following female reproductive organ is correctly matched with its function?

- A. Ovaries → sites for maturation of eggs.
- B. Cervix → sites for fertilization process.
- C. Oviduct → sites for pregnancy.
- D. Uterus → sites for egg production.

.....43. Which one of the following is effective method of avoiding conception for youngsters ?

- A. Using contraceptive pills
- B. Safe abortion
- C. Using condom
- D. Abstinence from sexual activity

.....44. Choose the one which is common secondary sexual characteristics of both human males and females?

- A. Production of eggs
- B. Widening of hips
- C. Enlargement of genital organ
- D. Deepening of voice

.....45. Suppose in the adult human female, her first menstruation began on August 1, 2012
E.C. When she would get pregnant if she does sexual intercourse with her couple?

- A. August 1-5, 2012 E.C
- B. August 10-19, 2012 E.C
- C. August 6-9, 2012 E.C
- D. August 26-30, 2012 E.C

.....46. In which one of the following methods HIV/AIDS cannot be transmitted from person to person?

- A. From mother to baby during birth
- B. By sleeping together
- C. By feeding breast milk
- D. By contaminated needles

.....47. Which of the following is the correct pathway of the female reproductive system inner to outer ?

- A. Ovary → fallopian tube → uterus → cervix → vagina
- B. Fallopian tube → ovary → uterus → cervix → vagina
- C. Vagina → ovary → oviduct → uterus → cervix
- D. Vagina → cervix → uterus → oviduct → ovary

..... 48. Which one of the following the raw material for photosynthesis ?

- A. Nitrogen
- B. Glucose
- C. Oxygen
- D. Carbon dioxide

.....49. Which of the following is exotic tree of Ethiopia ?

- A. Podocarpus
- B. Hygenia
- C. Eucalyptus
- D. Cordia

..... 50. A green plant can manufacture starch in the presence of

- A. Chlorophyll and carbon dioxide
- B. Water, light, chlorophyll and carbon dioxide
- C. Light and chlorophyll
- D. Light, chlorophyll and carbon dioxide

.....51. The presence of starch in green leaves can be tested using.....

- A. Benedict's solution
- B. Glucose solution
- C. Ethanol
- D. Iodine solution

.....52. Suppose two leaves were taken from two plants kept under different light conditions. Leaf one was taken from a plant kept in dark place, and Leaf two was taken from a plant kept in bright light. If we test these two leaves for starch, which one shows blue black color?

- A. Leaf one
- B. Leaf two
- C. Both of them
- D. None of them

.....53. Which one of the following is the correct chemical equation of light reaction ?

- A. $C_6H_{12}O_6 + 6O_2 \longrightarrow 6CO_2 + 6H_2O + \text{energy}$
- B. $2H_2O \longrightarrow 4H + O_2$
- C. $6CO_2 + 12H_2O \longrightarrow C_6H_{12}O_6 + 6O_2 + H_2O$
- D. $C_6H_{12}O_6 + 6O_2 \longrightarrow C_2H_5OH + 4CO_2 + \text{energy}$

.....54. Choose the one which is a non – ruminant animal?

- A. Horse B. Goat C. Buffalo D. Cattle

.....55 Which of the following steps comes first in tree planting project?

- A. Filling plastics bags with soil.
B. Distribution of seeds in to small holes made in the soil.
C. Obtaining seeds of tree.
D. Keeping the seedling in moist and shady places.

.....56. Which of the following is the purpose of transferring a boiled leaf into ethanol solution while conducting starch test in plant leaves ?

- A. To activate starch formation C. To kill the leaf
B. To remove chlorophyll D. To make leaf soft

.....57. Which one of the following steps of growing trees helps to reduce the members of seedlings to minimize competition ?

- A. Germination B. Thinning C. Sprouting D. Pruning

.....58. Which of the following shows the correct steps of food passage from the mouth to intestine of ruminants ?

- A. Omasum → Abomasum → Reticulum →Rumen
B. Reticulum →Rumen→ Abomasum → Omasum
C. Abomasum →Omasum → Reticulum →Rumen
D. Rumen → Reticulum → Omasum → Abomasum

.....59.Which one of the following is farm animal?

- A. Lion B. Zebra C. Camel D. Fox

.....60.Which of the following is true about photosynthesis

- A. Chemical energy is changed into mechanical energy.
B. Photosynthesis takes place only in the chloroplasts.
C. The raw material are soil and water.
D. Foodis manufacturing only in the leaf.

