



Our country, our future

NAME:.....

STREAM:.....

SENIOR ONE

BIOLOGY

EXAM 3

Do all numbers

1 ½ hours

1. Which of the following are not social insects?

A. Ants	C. Bees
B. Termites	D. Butterflies

2. Which one of the following does not contribute to the efficiency of a housefly as a vector?

A. Ability to fly	C. Feeding in dirty places
B. Feeding on liquid food	D. Possession of hairs on the body

3. Which one of the following is the correct order in the level of organisation of an organism?

A. Cell → Organs → tissues → systems
B. Tissue → Organs → systems → cells
C. Cells → tissues → organs → systems
D. Organs → tissues → systems → cells

4. Which one of the following farming practices **does not** promote soil fertility?

A. Strip cropping	C. Crop rotation
B. Monoculture	D. Mulching

5. Which one of the following cell structures is possessed by both animal and plant cells?
- | | |
|----------------|------------------|
| A. Chloroplast | C. flagellum |
| B. Cell wall | D. Cell membrane |
6. Beans are usually included in crop rotation cycle because they
- A. Act as cover crops
 - B. Improve water retention of the soil
 - C. Increase humus content in the soil
 - D. Restore nitrogen in the soil
7. In a parasitic association between two organisms.
- A. Both members benefit
 - B. Only one member benefits
 - C. Both members suffer harm
 - D. Neither member is harmed
8. Which of the following diseases are all transmitted by mosquitoes?
- A. Elephantiasis, river blindness and yellow fever
 - B. Malaria, elephantiasis and river blindness
 - C. Yellow fever, malaria and elephantiasis
 - D. Yellow fever, malaria and elephantiasis
9. Which one of the following organisms improves aeration and drainage of soil?
- | | |
|-------------|-------------|
| A. Fungi | C. Snails |
| B. Bacteria | D. Termites |
10. Which one of the following groups contains the largest number of organisms?
- | | |
|----------|------------|
| A. Order | C. Species |
| B. Class | D. Phylum |
11. Which of the following parts of a microscope are adjusted in order to bring the specimen into focus?
- A. Eyepiece and coarse adjustment
 - B. Coarse and fine adjustment
 - C. Eyepiece and fine adjustment
 - D. Mirror and fine adjustment
12. Which of the following are structural adaptations to flight in birds?
- A. Light bones and webbed feet
 - B. Webbed feet and light feathers
 - C. Streamlined body and light bones
 - D. Smooth body and light feathers

13. In which one of the following associations do both organism benefit?
- A. Malarial parasite and human
 - B. Tapeworm and human
 - C. A fungal parasite and plant
 - D. Nitrogen fixing bacteria and leguminous plants
14. At which of the following levels of classification can organisms interbreed and produce fertile offspring?
- A. Class
 - B. Phylum
 - C. Species
 - D. Kingdom
15. Which of the following part of a microscope magnify the object?
- A. Eyepiece and mirror
 - B. Objective lens and mirror
 - C. Eyepiece and objective lens
 - D. Eyepiece and fine adjustment
16. Which of the following parts of a plant cell provides shape and rigidity?
- A. Protoplasm
 - B. Cell wall
 - C. Nucleus
 - D. Cell membrane
17. The following are structures of a cell.
- A. (i), (ii) and (iv)
 - B. (i), (iii) and (iv)
 - C. (ii) and (iii)
 - D. (ii) and (iv)
18. Which one of the following fruits is an example of a drupe?
- A. Avocado
 - B. Tomato
 - C. Passion fruits
 - D. Orange
19. Which of the following is an example of a modified root?
- A. Irish potato tuber
 - B. Cassava tuber
 - C. Rhizome
 - D. Corm
20. Which one of the following activities takes place during the pupal stage in the lifecycle of an insect?
- A. Hibernation
 - B. Feeding
 - C. Organ formation
 - D. Resting
21. Which one of the following types of cells is unspecialised?
- A. Companion cell in plants
 - B. Red blood cell
 - C. Meristematic cell
 - D. Nerve cell
22. Which one of the following is characteristic of animal cells?

- A. Presence of cell walls
 - B. Cells consist entirely of cytoplasm
 - C. Have regular shape
 - D. Have large centrally placed vacuoles
23. Which one of the following structures separates the nucleoplasm from cytoplasm?
- A. Plasma
 - B. The cell wall
 - C. Plasma membrane
 - D. The nuclear membrane
24. Lack of protein in the diet of a child is responsible for
- A. Kwashiorkor
 - B. Marasmus
 - C. pellagra
 - D. Rickets
25. Which one of the following expressions can be used to determine the magnification power of a microscope?
- The magnification of the eye piece
- A. $\times$ the magnification of the objective lens
 - B. $+$ the magnification of the objective lens
 - C. $\div$ the magnification of the objective lens
 - D. $-$ the magnification of the objective lens
26. The bacterium Treponema pallidum is responsible for causing
- A. Syphilis
 - B. Typhoid
 - C. Cholera
 - D. Tetanus
27. Cocci bacteria are
- A. Cuboid in shape
 - B. Spiral-shaped
 - C. Rod-shaped
 - D. Spherical shaped
28. Which of the following **does not** belong to kingdom fungi?
- A. A zotobacter
 - B. Yeast
 - C. Mushrooms
 - D. Puff balls
29. Which branch of biology deals with the study of plants?
- A. Zoology
 - B. Ecology
 - C. Cytology
 - D. Botany
30. Which of the following is **not** a unicellular organism?
- A. Amoeba
 - B. man
 - C. Paramecium
 - D. Plasmodium

SECTION B

Attempt all questions in the spaces provided

31. (a) Give two examples of organisms under the Kingdom Fungi. (02marks)

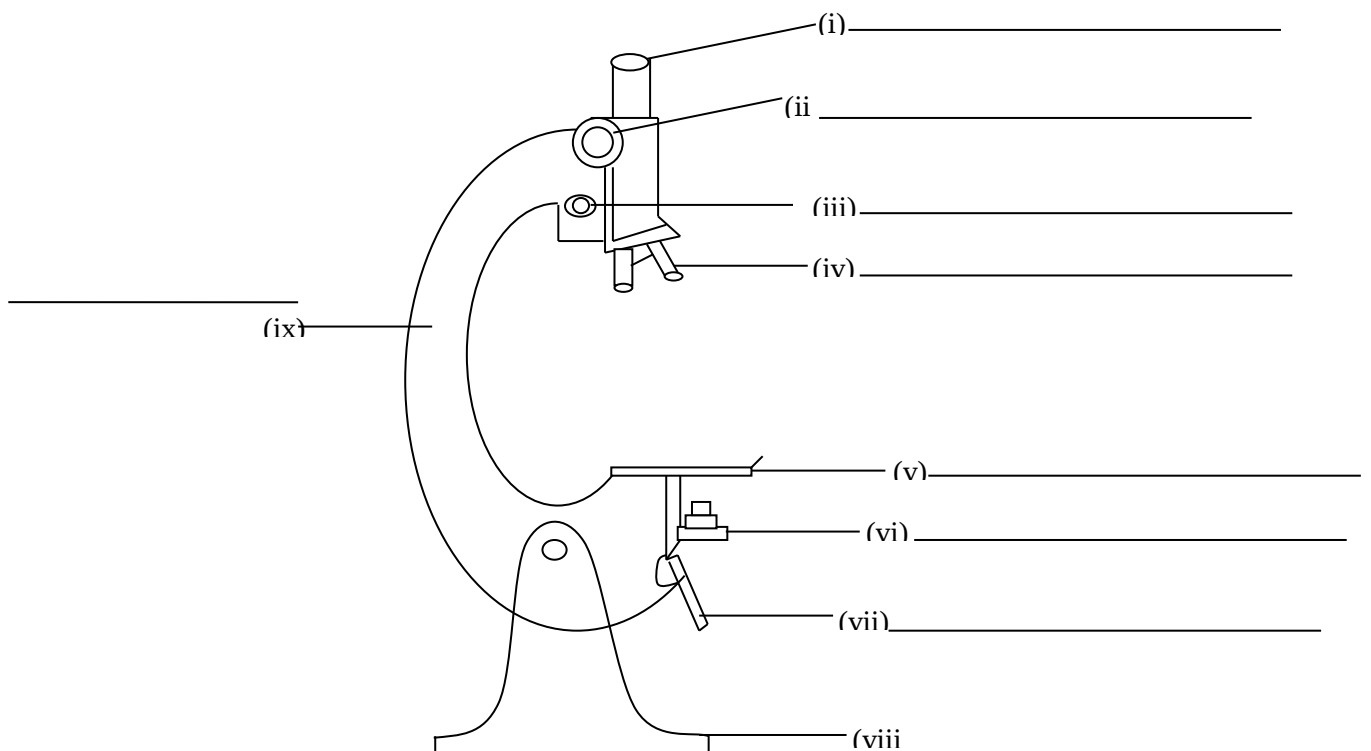
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(b) State four characteristics of fungi. (04marks)

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(c) State four economic importances of fungi to man. (04marks)

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32. (a) State three branches of biology. (03marks)

.....
.....
(b) State the characteristics of living things. (07marks)

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.....
33. The drawing below is of an instrument used in a laboratory.



(a) (i) Identify the instrument. (01mark)

.....
(ii) State the use of the instrument in a science laboratory (01mark)

.....
(b) Name the parts labelled (i) – (ix) in the space provided on the diagram. (09marks)

(c) What are the functions of (i), (ii), (iv) and (vii)

(i)

(ii)

(iv).....

(vii).....

(d) State five hints for handling a microscope.

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SECTION C

34. (a) Draw a plant cell and label **only four** parts (organelles) which can be identified from the cell. (05marks)

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(b) State the one function of each of the labelled parts above. (04marks)

(i).....

- (ii).....
- (iii).....
- (iv).....

(c) State three differences between a plant cell and animal cell. (06marks)

Plant cell	Animal cell

END