

JCM 2026/ SAMPLE

SECTION A.

- 1.C
- 2.B
- 3.D
- 4.C
- 5.D
- 6.D
- 7.B
- 8.C
- 9.D
- 10.C
- 11.C
- 12.C
- 13.D
- 14.A
- 15.C
- 16.D
- 17.C
- 18.B
- 19.C
- 20. B.

SECTION B.

- 21 (a) (1 mark for correct trophic level and organism) 1 x3 marks
(1 mark for correct diagram of pyramid of biomass)



(b) To control the amount of light passing from the light source to the condenser.

22 (a) Sweating as a result of evaporation from the skin/ draws away heat from the body.

1/1

(b) >Feeding on too much carbohydrates which are oxidised/ are converted into lipids
Which are stored under the skin.

>Psychological disturbance that slows down metabolism/ leading up to the build
Up of fats.

➤ Lack of exercise/in which excess calories are not burnt.

1x 2 marks.

23 (a) manual worker. Breakfast. Mgaiwa porridge/ cassava or potatoes

Lunch. Nsima (mgaiwa/ rice/ with fish beens/ with vegetables.

(2 marks)

Infant: mgaiwa porridge or bread with stork magerine.

Lunch: Nsima / rice with meat/ fish / vegetables. (2 marks)

(b) To prevent cactus from predators / protection (1 x1 mark)

(c) > Cleaning sexual organs with a type of beverage prior to sexual intercourse prevent
HIV/AIDS.

>HIV/AIDS is caused by witchcraft.



>Having sexual intercourse with virgins and albinos cures HIV.

>When one is receiving treatment he or she can not spread HIV/AIDS. (1 X1 mark)

24 (a) (i) Fig B

(ii) Because of the possession of canine and sharp premolars. (1 x1 mark)

(b) (i) First level. (1 x1 mark)

(ii) Has no upper incisors/ gap which is for grasping grass. (1 x1 mark)

25 (a) > pour water in a measuring cylinder up to a certain level.

- Record the reading of water level $V_1 = a \text{ cm}^3$
- Tie the organism whose volume is being determined with a string and carefully Lower it in the measuring cylinder.

1 x 2 marks

(b) This helps them to cope and overcome /the mental worries they develop

(1 x 2 marks)

26 (a) >Body covered with feathers/legs covered with scales.

- Front limbs are in the form of wings.
- Have hard beaks or bills and no teeth.
- Lay eggs covered by a calcareous shell.
- Use lungs for gaseous exchange
- They maintain a constant body temperature despite the changing environmental temperature. (1 x1 mark)

(b) It enhances faster absorption of water into the body./ It helps the body to replace fluids

Lost during diarrhoea. (1 x2)

27 (a) > cornified layer.

- granular layer
- Malpighian layer. (1 x 2 marks)



(b) procedure where a needle is inserted into a vein to obtain blood. (1x 1 mark)

© to eliminate excess water absorbed. (1 x 1 mark)

28.(a) H _____Hypha.

J _____Sporangium. (1 x mark)

(b) Involved in feeding/ gaseous exchange/ reproduction . (1 x1 mark)

© > algae associate with fungi to form lichens: where algae photosynthesises food

The lichens break down rocks to release nutrients.

>Rhizobium bacteria in the root nodules: bacteria is protected and plant uses nitrogen
To make proteins.

>Bacteria in the human gut makes vitamins to be used by the human being/ bacteria gets
The undigested food. (1 x 2marks).

29. (a) Auditory nerve /cochlea (1 x 1 mark)

(b) a condition whereby a person is partially unable to hear /due to problems of relaying
sound waves to the inner ear. (1 x2 marks)

© bell jar

(30) (a) >don't try to move the patient if you can suspect a neck, back or head injury.

> try to make the patient comfortable in the position given.

> never try to push the bak bone as it can make the situation worse.

>in case of bleeding apply direct pressure.

(1 x 2)

(b) allow exchange of oxygen and nutrients from the blood to tissues /and wastes



From the tissues to blood for elimination (2 marks).
(pericardium)

SECTION C (30 MARKS)

31. Sacrase/ which breaks down sucrose to glucose and fructose.

Maltase/ which breaks down maltose to glucose.

Lactase / which breaks down lactose to glucose and galactose.

Peptidase/ which breaks down peptides to amino acids.

Lipase/ which breaks down lipids to fatty acids and glycerol

Pancreatic amylase/ that breaks down remaining starch to maltose'

(1 x2 marks)

32.

>Take a potted plant with variegated leaves

>Put the potted plant in sunlight for six hours

>Detach one of the variegated leaf .

>Test the variegated leaf for starch.

>The green parts turn blue black



- > The non –green parts turn to colour of iodine(brown)
- > This shows that starch was formed by the green parts while the
The non- green parts didn't produce any starch because it didn't contain chlorophyll.

33.> It acts as a depressant on the nervous system/ creating a sensation of well being.

- >It slows down the reflex responses and coordination of body movements/ making
an individual not perform in given activities.
- >It lulls the brain and leads to gradual loss of memory/ and general lack of self control /
Making one loose self –esteem among peers and colleagues.
- >Over a long period, it causes ill –health/ by affecting the liver and other organs.
- >Slows down the rate of impulse transmission in neurons/ resulting in slow responses.
- >It depresses the brain causing loss of attention and judgement.
- >Pregnant women who drink alcohol can cause brain damage to the developing foetus.

(2 X5 MARKS

