**BIOLOGY**

**FORM TWO**

**MID TERM THREE 2022**

**NAME ……………………………………………………………….ADM……………CLASS…………**

**SECTION A**

Answer all questions

1.Explain the two main branches of biology (4mks).

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2.State the role of light in photosynthesis (2mks)

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3.State the functions of the following cell organneles(2mks)

a)Golgi apparatus

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b)Robosomes

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4.What are the three end products of anaerobic respiration in plants(3mk)

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b)State the economic importance of the products named above(2mks)

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5.Below is a diagram representing a longitudinal section of a human tooth



a)Name the type of tooth (2mks)

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b)Give a reason for your answer in (a) abobe. (1mk)

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c)Name the structures P,Q, and R (3mks)

P………………………………………………………..……………………………………………………………………………………

Q…………………………………………………………..……………………………………………………………………………………

R…………………………………………………………………………………………………………………………………………………

6.The diagram below represents a transverse section of a plant part



a)Identify the class from which it is obtained (1mk)

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b)Name parts G and H (2mks)

G…………………………………………………………..……………………………………………………………………………………

H…………………………………………………………………………………………………………………………………………………

c)Give one role of J (1mk)

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d)Name the three types of transpiration (3mks)

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e)Name the strengthening material in the xylem vessels (1mk)

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7.Below is a dental formulae of a certain organism. Use it to answer the questions that follow

$$I\frac{0}{3} C \frac{0}{1} PM \frac{3}{2} M \frac{3}{3}$$

i)Calculate the total number of teeth in the mouth of the organism (2mks)

ii)Name the organism (1mk)

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iii)Identify the mode of nutrition of the organism (1mk)

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b)Name the two dental diseases (2mks)

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8.Give a reason why glucose does not normally appear in urine even though it if filtered in mammalian Bowman’s capsule (2mks)

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b)A person was found to pass out large volumes of dilute volumes of dilute urine frequently. Name the:

i)Disease the person was suffering from (1mk)

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ii)Hormone that was deficient

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c)Name the hormone involved in salt balance in the human body (1mk) ………………………………………………………………………………………………………………………………………………………

9.State one use of each of the following excretory products in plants (3mks)

i)Tannin

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ii)Quinine

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iii)Caffeine

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10. The figure below represents a transverse section through the human skin



a)Name the structures A to F(6mks)

A…………………………………………………………………………………………………………………………………………………

B…………………………………………………………………………………………………………………………………………………

C…………………………………………………………………………………………………………………………………………………

D…………………………………………………………………………………………………………………………………………………

E…………………………………………………………………………………………………………………………………………………

F…………………………………………………………………………………………………………………………………………………

b)Give two functions of sebum (2mks)

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c)Explain the changes that occur in the skin when it is cold (4mks)

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11.The diagram below shows a vertical section through a mammalian hear



a)Name the parts labeled A,B,E and F (4mks)

A…………………………………………………………………………………………………………………………………………………

B…………………………………………………………………………………………………………………………………………………

E…………………………………………………………………………………………………………………………………………………

F…………………………………………………………………………………………………………………………………………………

b)Use the arrows to show direction in which the blood flows in the heart (2mks)

c)Give a reason why the wall of chamber C is thicker than chamber D (2mks)

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12.Fill in the table below showing reactions of blood type by putting (√) for compatibility and (×)for

Incompatibility (4mks)

|  |  |
| --- | --- |
| DONOR | RECIPIENT |
|  | Ab | Ba | AB | Oab |
| Ab | √ |  | √ | × |
| Ba |  | √ |  |  |
| AB | × | × |  |  |
| Oab |  |  | √ | √ |

b)What are the advantages and disadvantages of having blood group O? (2mks)

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c)What is the advantage of having blood group ABC (2mks)

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13.a)Name the opening to the chamber of the heart of a grasshopper (1mk)……………………………………..

b)Study the diagram below



i)Name the parts marked X-Z (3mks)

X……………………………………………………………………………………………….

Y………………………………………………………………………………………………

Z………………………………………………………………………………………………..

c)Identify the type of circulation exhibited above and give an example of an organism with the type of circulation (2mks)………………………………………………………………………………………………………………………….

d)State any two diseases of the kidney (2mks)

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14.The diagram below shows how blood glucose in mammalian body is regulated.

Normal glucose level

Less hormone R secreted hormone Z released

Pancreas secretes hormones

Normal glucose level

 R

a)Name hormone R and Z (2mks)

R…………………………………………………………………………………………………………………………………………………

Z…………………………………………………………………………………………………………………………………………………

b)State two ways by which hormone R lowers glucose level in the blood when it rises above 90mg/ 100cm3 (2mks)

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15.What is the difference between

 i)Homoithers and ectotherms (poikilotherms) (2mks)

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ii)Vasodilation and vasoconstriction

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16.State differences between aerobic and anaerobic respiration (5mks)

|  |  |
| --- | --- |
| Aerobic  | Anaerobic  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

b)Study the diagram below and answer the questions that follow



i)Identify the cell organelle (1mk)

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ii)What is the function of the cell organelle above (1mk)

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iii)Label the parts labeled A to D (4mks)

A………………………………………………..………………………………………………………………………………………………

B………………………………………………..………………………………………………………………………………………………

C………………………………………………..………………………………………………………………………………………………

D………………………………………………..………………………………………………………………………………………………

17.Describe the roles of the liver in homeostasis (10mks)

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