LAHORE BOARD

GRADE 10

BIOLOGY

2016 GROUP 1

| MCQ's i) For gaseous exchange the leaves and young stems have in their epidermis: (Mark 1) |
|---|
| A. Stomata |
| B. Lenticels |
| C. Companion cells |
| D. Ground cells |
| Answer: |
| A. Stomata |
| ii) The blood glucose level remains about per liter despite eating the meal rich in carbohydrates:(Mark 1) |
| A. 2 grams |
| B. 1 gram |
| C. 3 grams |
| D. 4 grams |
| Answer: |
| B. 1 gram |
| |
| iii) Types of neurons according to their work are: (Mark 1) |

| A. Three | |
|--|----------|
| B. Four | |
| C. Five | |
| D. Two | |
| Answer: | |
| A. Three | |
| iv) Temporal lobe is concerned with: | (Mark 1) |
| A. Hearing and smell | |
| B. Control of skeletal muscles | |
| | |
| C. Visual information | |
| D. Both A & B | |
| Answer: | |
| A. Hearing and smell | |
| v) The skeleton found outside the body is called: | (Mark 1) |
| A. Endoskeleton | |
| B. Exoskeleton | |
| C. Hydro-skeleton | |
| D. Fibro-skeleton | |
| Answer: | |
| B. Exoskeleton | |
| vi) Simple and most common way of asexual reproduction in bacte (Mark 1) | ria is: |

| A. Binary fission | |
|--|----------|
| B. Multiple fission | |
| C. Regeneration | |
| D. Budding | |
| Answer: | |
| A. Binary fission | |
| vii) Calyx is the outer most whorl of the flower and bears the color: (Mark 1) | |
| A. Red | |
| B. Green | |
| C. Blue | |
| D. White | |
| Answer: | |
| B. Green | |
| viii) Transmission of characters (traits) from parents to offspring is ca (Mark 1) | lled: |
| A. Inheritance | |
| B. Mutation | |
| C. Reproduction | |
| D. Regeneration | |
| Answer: | |
| A. Inheritance | |
| ix) Alternate forms of genes are called: | (Mark 1) |

| A. Traits | |
|--|----------|
| B. Alleles | |
| C. Loci | |
| D. Characters | |
| Answer: | |
| B. Alleles | |
| x) All the ecosystem of the world together form the: | (Mark 1) |
| A. Population | |
| C. Community | |
| B. Biosphere | |
| D. Habitat of human | |
| Answer: | |
| B. Biosphere | |
| xi) Complete map of human genome was published in: | (Mark 1) |
| A. 1999 | |
| C. 2000 | |
| B. 2001 | |
| D. 2002 | |
| Answer: | |
| D. 2002 | |
| xii) Sir Alexander Fleming was awarded the Nobel Prize in: | (Mark 1) |
| A. 1940 | |
| B. 1945 | |

| C. 1950 | | | |
|--|-----------|--|--|
| D. 1960 | | | |
| Answer: | | | |
| B. 1945 | | | |
| Q.2 i) Define Bronchitis. | (Marks 2) | | |
| Q.2 ii) How will you differentiate between a stoma and lentice (Marks 2) | el? | | |
| Q.2 iii) Write symptoms of asthma. | (Marks 2) | | |
| Q.2 iv) What is arthritis? | (Marks 2) | | |
| Q.2 v) Define bone with example. | (Marks 2) | | |
| Q.2 vi) Define the antagonistic muscles. | (Marks 2) | | |
| Q.2 vii) Write the name of Abiotic and Biotic components of E (Marks 2) | cosystem. | | |
| Q.2 viii) What is meant by community? | (Marks 2) | | |
| Q.2 ix) Define food chain and give an example of a simple food chain. (Marks 2) | | | |
| Q.3 i) What is lithotripsy? | (Marks 2) | | |
| Q.3 ii) What are the main organs work for homeostasis in a man? Explain. (Marks 2) | | | |
| Q.3 iii) Write down the names of four organs of urinary system (Marks 2) | m. | | |
| Q.3 iv) What is meant by dormancy? | (Marks 2) | | |
| Q.3 v) Define multiple fission. | (Marks 2) | | |
| Q.3 vi) What is continuous fermentation? | (Marks 2) | | |
| Q.3 vii) Define single cell protein. | (Marks 2) | | |
| Q.3 viii) What is Beta-endorphin? What is its function? | (Marks 2) | | |
| Q.4 i) What is meant by receptors? Give examples. | (Marks 2) | | |
| Q.4 ii) Compare exocrine glands and endocrine glands. | (Marks 2) | | |
| Q.4 iii) Define transcription and translation. | (Marks 2) | | |
| Q.4 iv) What is meant by nucleosomes? | (Marks 2) | | |

(Marks 2) Q.4 v) What is "Punnet Square"? Q.4 vi) What is the difference between analgesic and antibiotic? (Marks 2) Q.4 vii) What is meant by "Social Stigma"? (Marks 2) Q.5 a) What is Pneumonia? Describe its symptoms and causes. (Marks 4) Q.5 b) What steps are involved in the formation of urine in the kidney? (Marks 3) Q.6 a) Describe the structure and function of thyroid gland and pancreas. (Marks 4) Q.6 b) Explain three types of joints. (Marks 3) Q.7 a) Describe the types of seed germination. Also describe the conditions for the germination seed. (Marks 4) Q.7 b) Describe the advantages and disadvantage of the vegetative propagation in plants. (Marks 3) Q.8 a) Explain artificial selection. (Marks 4) Q.8 b) What is parasitism? Explain its two types with examples. (Marks 3) Q.9 a) Write a note on ofapplication of fermentation. (Marks 4) Q.9 b) Describe drug addiction and associated problems. (Marks 3) Q.10 i) Write down the procedure of the experiment to show the presence of tar in cigarette smoke. (Marks 3) Q.10 ii) Draw the diagram of the experimental apparatus for measuring the inhaled and exhaled air. (Marks 2) Q.11 i) You performed an experiment to investigate the chemical composition of bone. Write the procedure for this experiment. (Marks 3) Q.11 ii) Draw the labeled diagram of the onion bulb. (Marks 2) Q.12 i) Write the procedure of the experiment to show the necessity of oxygen for seed germination. (Marks 3) Q.12 ii) Define abiotic and biotic components of the ecosystem. (Marks 2)

LAHORE BOARD

GRADE 10

BIOLOGY

2016 GROUP 2

| MCQ's i) Alcoholic fermentation is processed by: | (Mark 1) |
|--|----------|
| A. Virus | |
| B. Bacteria | |
| | |
| C. Fungi | |
| D. Algae | |
| Answer: | |
| C. Fungi | |
| ii) is prepared from opium: | (Mark 1) |
| A. Vaccine | |
| B. Aspirin | |
| C. Morphine D. Paracetamol | |
| Answer: | |
| C. Morphine | |
| iii) Alternate form of gene is called: | (Mark 1) |

| A. DNA |
|---|
| B. Gamete |
| |
| C. Chromosome |
| D. Alleles |
| |
| Answer: |
| D. Alleles |
| |
| iv) As per normal chemical composition the amount of water in the urine is: (Mark 1) |
| (IVIdIK 1) |
| A. 60% |
| B. 70% |
| |
| C. 80% |
| D. 95% |
| |
| Answer: |
| D. 95% |
| v) In every 100 ml of human blood concentration of glucose is maintained as: (Mark 1) |
| |
| A. 180-200 mg |
| B. 150-180 mg |
| C. 100-150 mg |
| D. 80-120 m |
| Answer: |

| vi) is not a part of carpel: | (Mark 1) |
|--|----------|
| A. Ovary | |
| B. Anther | |
| C. Stigma | |
| D. Style | |
| Answer: | |
| B. Anther | |
| vii) Cytosine always pair with: | (Mark 1) |
| A. Guanine | |
| B. Thiamine | |
| C. Adenine | |
| D. Hydrogen | |
| Answer: | |
| A. Guanine | |
| viii) Naturally found in graphite and diamond: | (Mark 1) |
| A. Nitrogen | |
| B. Carbon | |
| C. Oxygen | |
| D. Hydrogen | |
| Answer: | |
| B. Carbon | |

D. 80-120 mg

| ix) Stomata are frequ | ently present on: | (Mark 1) |
|----------------------------|---|-------------------------------------|
| | | |
| A. Upper side of leaf | | |
| B. Lower side of leaf | | |
| C. Both sides of leaf | | |
| D. Stem | | |
| Answer: | | |
| B. Lower side of leaf | | |
| x) Ovary is ripened in | nto: | (Mark 1) |
| A. Seed | | |
| B. Flower | | |
| C. Fruit | | |
| D. Sweetness | | |
| Answer: | | |
| C. Fruit | | |
| xi) The part of the brais: | ain responsible for muscle movement, interpre (Mark 1) | tation of the senses and the memory |
| A. Cerebrum | | |
| B. Pons | | |
| C. Medulla oblongata | ı | |
| D. Cerebellum | | |
| Answer: | | |
| A. Cerebrum | | |
| ") C ! | | (0.0. 1.4) |
| xii) Some bones prep | pare: | (Mark 1) |

| A. Mucous | |
|--|--------------|
| B. Blood cells | |
| C. Oxygen | |
| D. Hormones | |
| Answer: | |
| B. Blood cells | |
| Q.2 i) Define nasal cavity. | (Marks 2) |
| Q.2 ii) Define vocal cords. | (Marks 2) |
| Q.2 iii) Why does blood become thick due to smoking? | (Marks 2) |
| Q.2 iv) Define ligaments. | (Marks 2) |
| Q.2 v) What are biceps and triceps? | (Marks 2) |
| Q.2 vi) Differentiate between flexor muscle and extensor mu (Marks 2) | iscle. |
| Q.2 vii) Define predation with an example. | (Marks 2) |
| Q.2 viii) What are the effects of global warming? | (Marks 2) |
| Q.2 ix) What is meant by osmosis? | (Marks 2) |
| Q.3 i) What are hydrophytes? Give an example. | (Marks 2) |
| Q.3 ii) What is hilus? | (Marks 2) |
| Q.3 iii) Define dialysis. Name its two types. | (Marks 2) |
| Q.3 iv) What is reproduction? Name its two basic types. | (Marks 2) |
| Q.3 v) What is difference between self-pollination and cross-(Marks 2) | pollination? |
| Q.3 vi) What is vector in genetic engineering? | (Marks 2) |
| Q.3 vii) What is meant by single cell protein? | (Marks 2) |
| Q.3 viii) What is meant by gene therapy? | (Marks 2) |
| Q.4 i) What is meant by saltatory impulses? | (Marks 2) |
| Q.4 ii) What are meninges? Write down their function. | (Marks 2) |
| Q.4 iii) Differentiate between transcription and translation. | (Marks 2) |

| Q.4 iv) Differentiate between g | ene and allele. | (Marks 2) | | |
|---|--|--|--|--|
| Q.4 v) Differentiate between br | reeds and varieties. | (Marks 2) | | |
| Q.4 vi) What is meant by analge | esics? Give an example. | (Marks 2) | | |
| Q.4 vii) Define hallucinogens. | | (Marks 2) | | |
| Q.4 viii) Differentiate between (Marks 2) | bactericidal and bacteriostatic | antibiotics. | | |
| Q.5 a) Write a complete note of | n Pneumonia. | (Marks 4) | | |
| Q.5 b) How plants remove extra (Marks 3) | a carbon dioxide and oxygen ou | utside? | | |
| Q.6 a) Explain structure and fur | nction of pituitary gland. | (Marks 4) | | |
| Q.6 b) What is arthritis, describ | e its two types? | (Marks 3) | | |
| Q.7 a) What is AIDS? Give its ca | uses. | (Marks 4) | | |
| Q.7 b) Explain binary fission wit | th the help of amoeba. | (Marks 3) | | |
| Q.8 a) Write a note on Mendel' | s Law of Segregation. | (Marks 4) | | |
| Q.8 b) Write a note on nitrogen | n fixation. | (Marks 3) | | |
| Q.9 a) Write a note on batch fermentation and continuous fermentation in fermenter. (Marks 4) | | | | |
| Q.9 b) Describe the mode of ac | tion of vaccines. | (Marks 3) | | |
| Q.10 i) Write the procedure of experiment conducted to identify the presence of carbon dioxide in exhaled from the lungs. (Marks 3) | | | | |
| Q.10 ii) Draw the diagram of experiment set up to detect the presence of tar in cigarette smoke. (Marks 2) | | | | |
| Q.11 i) You observed experiment. | nt to investigate chemical comp (Marks 3) | position of bone. Write procedure for this | | |
| Q.11 ii) Draw the labeled diagra | am of observed Rhizome. | (Marks 2) | | |
| Q. 12 i) Write down the procedure of experiment for the fermentation of flour. (Marks 3) | | | | |
| Q. 12 ii) What is an ecosystem? | | (Marks 2) | | |
| | | | | |