

FAISALABAD BOARD

GRADE 9

Physics

2019 GROUP 1

Lesson 1 of 32

Section-A (MCQs)

i) Ground tissues are made of which cells? (Mark 1)

- A. Parenchyma
- B. Vessel elements
- C. Tracheids
- D. Sieve tubes

Answer:

A. Parenchyma

ii) The resolving power of human eye is: (Mark 1)

- A. 0.1 Centimeter
- B. 0.1 Micrometer
- C. 0.1 Millimeter
- D. 0.1 Decimeter

Answer:

C. 0.1 Millimeter

iii) The cell wall of fungi is made of which material? (Mark 1)

- A. Cellulose
- B. Chitin
- C. Lignin
- D. Peptidoglycan

Answer:

- B. Chitin

iv) A group of related genera is called: (Mark 1)

- A. Family
- B. Genus
- C. Class
- D. Phylum

Answer:

- A. Family

v) The hypothesis that stand the test of time are called: (Mark 1)

- A. Deduction
- B. Theories
- C. Observations
- D. Laws

Answer:

- B. Theories

vi) Which branch of biology deals with the study of forms and structure of living organisms?
(Mark 1)

- A. Anatomy
- B. Morphology
- C. Histology
- D. Physiology

Answer:

- B. Morphology

vii) The normal pH of blood is:

(Mark 1)

- A. 4.7
- B. 6.7
- C. 7.4
- D. 5.4

Answer:

- C. 7.4

viii) Outside the conducting tissues, there is a narrow layer of thin-walled cells, which is called:
(Mark 1)

- A. Pericycle
- B. Endodermis
- C. Xylem
- D. Phloem

Answer:

- A. Pericycle

ix) The example of micronutrients is:

(Mark 1)

- A. Nitrogen

B. Zinc

C. Magnesium

D. Potassium

Answer:

B. Zinc

x) Chlorophyll is present in which component of leaf cells? (Mark 1)

A. Stroma

B. Thylakoid

C. Plasma membrane

D. Cytoplasm

Answer:

B. Thylakoid

xi) The molecules on which enzymes act upon are called: (Mark 1)

A. Substrates

B. Biocatalysts

C. Products

D. Catalysts

Answer:

A. Substrates

xii) Prokaryotic cells undergo a process of cell division which is called:
(Mark 1)

A. Meiosis

B. Multiple fission

C. Binary fission

D. Budding

Answer:

C. Binary fission

Q.2 i) Define organ. Give one example. (Marks 2)

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Q.2 v) Write names of two endangered species in Pakistan. (Marks 2)

Q.2 vi) Why viruses are not included in five kingdom system? (Marks 2)

Q.2 vii) Write the difference between transmission electron microscope and scanning electron microscope. (Marks 2)

Q.2 viii) Name the chemicals found in the cell wall of fungi and prokaryotes. (Marks 2)

Q.3 i) What is meant by metastasis? (Marks 2)

Q.3 ii) What is the function of phragmoplast in plant cell? (Marks 2)

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Q.3 iv) What is activation energy? (Marks 2)

Q.3 v) When does denaturation of enzyme occur? (Marks 2)

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Q.3 viii) Define aerobic respiration. (Marks 2)

Q.4 i) Write any four sources of lipids. (Marks 2)

Q.4 ii) What is scurvy? Write its two symptoms. (Marks 2)

Q.4 iii) Describe two functions of oral cavity. (Marks 2)

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Q.4 v) Differentiate between source and sink. (Marks 2)

Q.4 vi) What is meant by Rh blood group system? (Marks 2)

Q.4 vii) What is the difference between angioplasty and bypass surgery?
(Marks 2)

Q.4 viii) Write the symptoms of dengue fever. (Marks 2)

Q.5 a) Define cellular organization. Explain its three types. (Marks 5)

Q.5 b) Explain the types of epithelial tissues. (Marks 4)

Q.6 a) Write the effects of factors, temperature and pH on the rate of enzyme action.
(Marks 5)

Q.6 b) Interpret that ATP is the chief energy currency of all cells.
(Marks 4)

Q.7 a) Define micro and macronutrients. Also, describe the role of nitrogen in plants life.
(Marks 5)

Q.7 b) Define transpiration. Also, describe the factors affecting the rate of transpiration.
(Marks 4)

FAISALABAD BOARD

GRADE 9

Physics

2019 GROUP 2

Lesson 1 of 32

Section-A (MCQs)

i) 1 liter is equal to: (Mark 1)

A. 1 mm³

B. 1 cm³

C. 1 dm³

D. 1 m³

Answer:

C. 1 dm³

ii) Which is a vector quantity?

(Mark 1)

- A. Speed
- B. Distance
- C. Power
- D. Displacement

Answer:

- D. Displacement

iii) Newton's first law of motion is valid only in the absence of: (Mark 1)

- A. Force
- B. Net Force
- C. friction
- D. Momentum

Answer:

- B. Net Force

iv) Law of inertia is known as:

(Mark 1)

- A. First law of motion
- B. Second law of motion
- C. Third law of motion
- D. Momentum

Answer:

- A. First law of motion

v) Value of $\sin 30^\circ$ is:

(Mark 1)

A. 0.00

B. 0.5

C. 0.707

D. 0.866

Answer:

B. 0.5

vi) In how many days moon completes its one revolution around the earth?
(Mark 1)

A. 27.3

B. 27.4

C. 27.5

D. 27.1

Answer:

A. 27.3

vii) The speed of light C is: (Mark 1)

A. $2 \times 10^8 \text{ms}^{-1}$

B. $4 \times 10^8 \text{ms}^{-1}$

C. $1 \times 10^8 \text{ms}^{-1}$

D. $3 \times 10^8 \text{ms}^{-1}$

Answer:

D. $3 \times 10^8 \text{ms}^{-1}$

viii) Rate of doing work is called: (Mark 1)

- A. Energy
- B. Torque
- C. Power
- D. Momentum

Answer:

- C. Power

ix) Density of ice is:

(Mark 1)

- A. 900kgm^{-3}
- B. 910kgm^{-3}
- C. 920kgm^{-3}
- D. 930kgm^{-3}

Answer:

- C. 920kgm^{-3}

x) Normal human body temperature is:

(Mark 1)

- A. $15\text{ }^{\circ}\text{C}$
- B. $37\text{ }^{\circ}\text{C}$
- C. $37\text{ }^{\circ}\text{F}$
- D. $98.6\text{ }^{\circ}\text{C}$

Answer:

- B. $37\text{ }^{\circ}\text{C}$

xi) Thermal conductivity of wood is:

(Mark 1)

- A. $0.06\text{Wm}^{-1}\text{k}^{-1}$
- B. $0.07\text{Wm}^{-1}\text{k}^{-1}$

C. $0.08\text{Wm}^{-1}\text{k}^{-1}$

D. $0.09\text{Wm}^{-1}\text{k}^{-1}$

Answer:

C. $0.08\text{Wm}^{-1}\text{k}^{-1}$

xii) In solids, heat is transferred by:

(Mark 1)

A. Radiation

B. Conduction

C. Convection

D. Absorption

Answer:

B. Conduction

Q.2 i) Write the formula for least count of screw gauge and write its value.

(Marks 2)

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Q.2 iii) What meant by prefixes?

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(Marks 2)

Q.2 v) What is the difference between distance and displacement?

(Marks 2)

Q.2 vi) Define momentum. Is it vector or scalar?

(Marks 2)

Q.2 vii) Write two differences between weight and mass.

(Marks 2)

Q.2 viii) State the law of conservation of momentum.

(Marks 2)

Q.3 i) What is the difference between like parallel forces and unlike parallel forces?

(Marks 2)

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(Marks 2)

Q.3 iii) Define the force of gravitation.

(Marks 2)

- Q.3 iv) State the law of gravitation. (Marks 2)
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- Q.3 vi) Define work and write its SI unit. (Marks 2)
- Q.3 vii) Define Kinetic energy and write its mathematical equation. (Marks 2)
- Q.3 viii) Define power and its SI unit. (Marks 2)
- Q.4 i) Define pressure and write SI unit. (Marks 2)
- Q.4 ii) State Hook's law. (Marks 2)
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- Q.4 ii) State Hook's law. (Marks 2)
- Q.4 v) Differentiate between temperature and heat. (Marks 2)
- Q.4 vi) What is meant by convection currents in air? (Marks 2)
- Q.4 vii) Define thermal conductivity. (Marks 2)
- Q.4 viii) What is meant by gliding? (Marks 2)
- Q.5 a) Derive third equation of motion with the help of speed-time graph. (Marks 5)
- Q.5 b) A cyclist of mass 40kg exerts a force of 200N to move his bicycle with an acceleration 3ms^{-2} . How much is the force of friction between the road and the tyres? (Marks 4)
- Q.6 a) What meant by resolution of force? A force F is Making angle θ with x-axis. Find the value of its horizontal and vertical components. (Marks 5)
- Q.6 b) A motor boat moves at a steady speed of 4ms^{-1} . Water resistance acting on its is 4000N. Calculate the power of its engine. (Marks 4)
- Q.7 a) Define and explain the volume thermal expansion. Also derive the equations $v=v_0(1+\beta\Delta T)$. (Marks 5)
- Q.7 b) A steel wire 1m long and cross-sectional area $5\times 10^{-5}\text{m}^2$ stretched through 1mm by a force of 10000N. Find Young's modulus of the wire. (Marks 4)