Q1.A virtual image can be formed by

- 1. concave mirror.
- 2. concave lens.
- 3. convex mirror.
- 4. convex lens
- 5. plane mirror

Select the correct answer using the codes given below.

- a) 1, 2 and 5 only
- b) 1, 4 and 5 only
- c) 2 , 3 and 5 only
- d) 1, 2, 3, 4 and 5

Q2.There are four fundamental forces in the universe.

- 1. electromagnetic force.
- 2. gravitational force.
- 3. strong nuclear force.

4. weak nuclear force.

The correct order of these forces from strongest to weakest is

- a) 2 3 4 1
- b) 2 1 3 4
- c) 1 3 4 2
- d) 3 1 4 2

Q3.Ammeter and Voltmeter are used to measure current and voltage respectively. Which of the following is true about them?

a) Ammeter is connected in series while voltmeter is connected in parallel.

- b) Ammeter is connected in parallel while voltmeter is connected in parallel.
- c) Both ammeter and voltmeter are connected in series.
- d) Both ammeter and voltmeter are connected in parallel.

Q4.With reference to sound waves, consider the following statements:

1. Sound waves can undergo diffraction and this phenomenon is used in auditoriums to provide better hearing experience.

2. It is because of diffraction that sound can be heard around corners even though sound travel in a straight line.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q5. With reference to pesticides and insecticides, consider the following statements:

1. Both pesticides and insecticides kill by poisoning, suffocating or paralyzing.

2. Pesticides are a subgroup of insecticides that are specifically used for killing pests. Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q6.Assertion (A) – Most satellite TV antenna in India face south, south east or south-west.

Reason (R) – TV transmission satellite mostly uses a geostationary orbit.

a) Both A and R are true and R is the correct explanation of A

b) Both A and R are true but R is not a correct explanation of A

- c) A is true but R is false
- d) A is false but R is true

Q7.Consider a body at temperature of 100 units kept in a room with room temperature 20 units.

Event A : The temperature of the body decreased from 100 to 60.

Event B : The temperature of the body decreased from 60 to 20.

Which of the following is true?

a) Time taken for A is more than that for B.

b) Time taken for A is less than that for B.

c) Both A and B will take equal time.

d) Data is insufficient to compare time taken.

Q8.The cell wall is present in

1. bacteria

2. blue-green algae

3. plants

Select the correct answer using the codes given below.

a) 1 and 3 only

b) 2 and 3 only

- c) 3 only
- d) 1, 2 and 3

Q9.Extra Vehicular Activity (EVA) is related to

a) racing and sports car driving.

b) manoeuvre outside military aircrafts.

c) works done outside spacecrafts

d) underwater maintenance work of large ships.

Q10.Burning biomass for energy does not release

1. sulphur

2. mercury

3. nitrogen

Select the correct answer using the codes given below.

- a) 1 and 2 only
- b) 2 only

