PHYSICS

BOOKS - FULL MARKS PHYSICS (TAMIL ENGLISH)

SAMPLE PAPER -8

Part I M C Q

1. If the Earth shrinks to 50% of its real redius

its mass remaining the same , the weight of a

body on the Earth will _____

A. decrease by 50%

B. increase by 50%

C. decrease by 25%

D. increase by 300%

Answer: C

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2. The refractive index of four substance A,B, C and D are 1.31, 1.43 , 1.33 , 2.4 respectively . The speed of light is maximum in

A. A

B. B

C. C

D. D

Answer: A

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3. When a sound wave travels through air, the air particles

A. a)vibrate along the direction of the wave motion

B. b)vibrate but not in any fixed direction

C. c)vibrate perpendicular to the direction of the wave motion

D. d)do not vibrate

Answer: A

4. Which of the following represents 1 amu ?

A. mass of a C-12 atom

B. mass of hydrogen atom

C. 1/12th of the mass of a C-12 atom

D. mass of 0-16 atom

Answer: C

5. .... is a relative periodic property.

A. atomic radii

B. Ionic radii

C. Electron affinity

D. Electron negativity

Answer: B

6. which of the following is the universal solvent ?

A. Acetone

B. Benzene

C. Water

D. Alcohol

Answer: C

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7. Root hairs are

    A. cortical cell

    B. projection of epidermal cell

    C. unicellular

    D. both (b) and (c)

Answer: D

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8. Polyphagia is a condition seen in

A. Obesity

B. Diabetes mellitus

C. AIDS

D. Cancer

Answer: B

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9. 9:3:3:1 ratio is due to_____

A. Segregation

B. Independent Assortment

C. Crossing over

D. Recessive factors

Answer: B

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10. rDNA is a__

A. vector DNA

B. circular DNA

C. recombinant of vector DNA

D. satellite DNA

Answer: C

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11. The term biogenesis was coined by

A. Louis Pasteur

B. Darwin

C. Lamark

D. Oparin

Answer: A

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12. Green house effect refers to

A. cooling of earth

B. warming of earth

C. cultivation of plants

D. trapping of UV rays

Answer: B

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Part Ii

1. State Newton's II law of motion.

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2. Why are traffic signals red in colour?

3. What is co-efficient of apparent expansion?

4. List difference between atom and molecules

.

5. (a) Define Hydrated salt.

(b) Define the term: solution.

6. What are synthetic auxins? Give examples.

7. Mention the Medicinal value of Leech.

8. (a) List the difference between RBC and WBC.

(b) Define triple fusion.

9. Which one of the following groups are not analogous organs?

10. A current of 2A flows through a 12 V bulb then find resistance.

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1. Deduce the equation of a force using Newton's second law of motion .

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2. Differentiate the eye defects: Myopia and Hypermetropia.

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3. (i) Define electric potential and potential difference.

(ii) How does a fuse wire protect electrical appliances?

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4. Give the salient features of " Modern atomic

theory ".

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5. How will you classify hydrocabons?

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6. Which acts as a link between the nervous

system and endocrine system?

7. What is aneuploidy?

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8. Discuss the imporatance of biotechnology in the field of medicine.

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9. What is secretory phase of menstrual cycle?

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10. Explain how the loss of heat (or transfer of heat) due to modes of transfer of heat is 1. Explain how the las minimised in a thermos flask.

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Part Iv

1. (a) (i) State Ohm's law.

(ii) With the help of a circuit diagram derive the formula for the resultant resistance of three resistances connected in parallel.

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2. (i)A man is standing between two vertical wall 680 m apart. He claps his hands and hears two distinct echoes after 0.9 seconds and 1.1 seconds respectively .What is the speed of

sound in the air ?

(ii) An electric heater of resistance 5Ω is connected to an electric source .If a current of 6 A flows through the heater then find the amount of heat produced in 5 minutes.

3. (i) Calculate the gram molecular mass of NH_3

4. How does pH play ann important role in everyday life?

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5. Why fossil fuels are to be conserved?

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6. calculate the molecular mass of CO_2.

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