



PHYSICS

BOOKS - FULL MARKS PHYSICS (TAMIL ENGLISH)

SAMPLE PAPER -11

Part I

1. One kilogram force equals to _____

A. 9.8 dyne

B. 9.8×10^4 N

C. 98×10^4 dyne

D. 980 dyne

Answer: C



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2. Human eye is _____ in nature.

A. convex

B. concave

C. transparent glass

D. plano concave

Answer: A



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3. Reactor Kamini is situated at _____

A. Kalpakkam

B. Kudankulam

C. Mumbai

D. Rajasthan

Answer: A



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4. One mole of any gas occupies _____ ml at

S.T.P

A. 25400

B. 21500

C. 20700

D. 22400

Answer: D



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5. when pressure is increased at constant temperature the solubility of gases in liquid _____.

A. no change

B. increases

C. decreases

D. no reaction

Answer: B



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6. Photolysis is a decomposition reaction caused by_____

A. heat

B. electricity

C. light

D. mechanical energy

Answer: C



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7. Name two layered protective covering of human heart .

A. pleural membrane

B. capsule

C. pericardium

D. meninges

Answer: C



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8. Where does alcohol effect immediately after drinking ?

A. Central Nervous System

B. Eyes

C. Liver

D. Auditory region

Answer: A



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9. Pharyngeal ganglion in leech is a part of

A. Excretory System

B. Nervous System

C. Respiratory System

D. Digestive System

Answer: B



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10. A fossil taxon is called _____

A. Andhra Pradesh

B. Kerala

C. Maharashtra

D. Tamil Nadu

Answer: D



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11. Syngamy results in the formation of _____.

A. Zoospores

B. Conidia

C. Zygote

D. Chlamydospores

Answer: C



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12. A cheap, conventional , commerical and inexhaustible source of energy is

A. Hydropower

B. Solar energy

C. Wind energy

D. Thermal energy

Answer: A



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Part II

1. State the principle of moments .



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2. Differentiate stokes line and antistokes lines.



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3. Define one roentgen.



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4. Moseley's periodic table is based on atomic mass .



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5. What is meant by binary solution? give example.



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6. Mention any two important characteristic features of mammals.



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7. Why are hormones called chemical messenger?



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8. Name two organisms which reproduces through budding .



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9. Why is Archaeopteryx considered to be a connecting link?



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10. Calculate the resistance of a conductor through which a current of 2A passes, when the potential difference between its ends is 30V.



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1. State the universal law of gravitation and derive its mathematical expression .



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2. List any five properties of light.



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3. Derive the ideal gas equation by combining the empirical gas laws.



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4. 'A' is a blue coloured crystalline salt . On heating it loses blue colour and to give 'B' when water is added , 'B' gives back to 'A' Identify A and B, write the equation .



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5. Explain smelting process.



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6. What are autosomes and allosomes?



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7. What are the structures involved in the protection of brain?



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8. How does developing embryo gets its nourishment inside the mother 's body ?



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9. What is heterosis?



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10. 1.5 g of solute is dissolved in 15 g of water to form a saturated solution at 298K .Find out the solubility of the solute at the temperature .



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Part Iv

1. (a) (i) Explain the construction and working of a 'Compound Microscope' with a neat

diagram.

(ii) State Snell's Law.



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2. (i) Calculate the current and the resistance of a 100W, 200V electric bulb in an electric circuit.

(ii) Write three fundamental laws of gases.



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3. Calculate the number of moles in 27g of Al.



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4. (i) Name the acid that renders aluminium passive. Why?

(ii) What are hygroscopic substances differ from deliquescent substances.



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5. How is the structure of DNA organized?

What is the biological significance of DNA?



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6. What is colostrum?



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