



# PHYSICS

## BOOKS - FULL MARKS PHYSICS (TAMIL ENGLISH)

### SAMPLE PAPER-05(SOLVED)

#### Part I

1. The unit of 'g' is  $ms^{-2}$ . It can be expressed  
as \_\_\_\_\_.

A.  $cm\,s^{-1}$

B.  $NKg^{-1}$

C.  $Nm^2kg^{-1}$

D.  $cm^2s^{-2}$

**Answer: b**



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2. A convex lens forms a real, diminished point sized image on focus. Then the position of the object is at

A. focus

B. infinity

C. at  $2f$

D. between  $f$  and  $2f$

**Answer: b**



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**3. Velocity of sound is maximum in .....**

A. Solid

B. Liquid

C. Gases

D. All the above

**Answer: a**



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**4. The Volume occupied by 4.4 g of  $CO_2$  at**

**S.T.P**

**A. 22.4 litre**

B. 2.24 litre

C. 0.24 litre

D. 0.1 litre

**Answer: b**



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5. Which of the following have inert gases 2 electrons in the outermost shell?

A. He

B. Ne

C. Ar

D. Kr

**Answer: a**



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6. Deliquescence is due to \_\_\_\_\_

A. Strong affinity to water

B. Less affinity to water

C. Strong hatred to water

D. Interness to water

**Answer: a**



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7. Decrease in leucocytes is.....

A. Leucopenia

B. Leukemia

C. Anaemia

D. None of the above

**Answer: a**



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**8.** Cancer cells are more easily damaged by radiations than normal cells because they are

A. Different in structure

B. Non-dividing

C. Mutated Cells



D. Undergoing rapid division

**Answer: d**



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9. The xylem and phloem arranged side by side on same radius is called \_\_\_\_\_ .

A. radial

B. amphivasan

C. conjoint

D. amphotribal

**Answer: c**



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10. \_\_\_\_\_ are green coloured plastids.

A. Chloroplast

B. Chromoplast

C. Leucoplast

D. Stele

**Answer: a**



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**11.** The best way of direct dating fossils of recent origin is by.....

- A. Radio-carbon method
- B. Uranium lead method
- C. Potassium-argon method
- D. Both (a) and (c)

**Answer: a**



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**12. All files are stored in the \_\_\_\_\_**

A. Box

B. Pai

C. Scanner

D. Folder

**Answer: d**



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## Part II

1. Define moment of a couple.



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2. Distinguish between the resistivity and conductivity of a conductor .



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3. Why does sound travel faster on a rainy day than on a dry day?



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4. What is rust ? Give the equation for formation of rust .



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5. Give an example each

gas in liquid



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6. How does leech respire?



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7. What is bolting?



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8. Match the following:

- |                   |                |
|-------------------|----------------|
| (a) Regeneration  | (i) Yeast      |
| (b) Budding       | (ii) Spirogyra |
| (c) Fission       | (iii) Planaria |
| (d) Fragmentation | (iv) Amoeba    |

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9. What is Atavism?

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**10.** Calculate the velocity of a moving body of mass 7 kg whose linear momentum is 5 kg  $ms^{-1}$



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**11.** Explain the meaning of law of conservation of linear momentum



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**12.** What connection is used in domestic appliances and why ?



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**13.** what is an epoch ?



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**14.** Mention the disadvantages of detergents.



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**15.** Why does the reaction rate of a reaction increase on raising the temperature ?



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**16.** How the disease are transmited from one person to the other person?



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**17.** What is cohesion ?



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**18.** Give an account on vascular bundle of dicot stem.



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**19.** State the application of DNA finger printing technique.



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20. A solution is made from 25 ml of ethanol and 75 ml of water. Calculate the volume percentage.



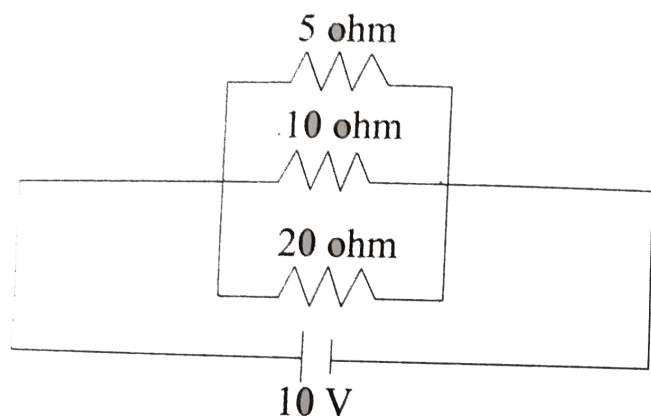
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21. In the circuit diagram given below, three resistors  $R_1$ ,  $R_2$  and  $R_3$  of  $5\Omega$ ,  $10\Omega$  and  $20\Omega$  respectively are connected as shown.

(A) Current through each resistor

(B) Total current in the circuit

(c) Total resistance in the circuit



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22. Find the percentage of nitrogen in ammonia.



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**23.** Write notes on various factors affecting solubility .



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**24.** What are the advantages of using biogas?



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25. What is hermaphrodite?



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## Part Iv

1. (i) What are the characteristic features of heat energy transfer?

(ii) Explain linear expansion with diagram?



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