



PHYSICS

BOOKS - FULL MARKS PHYSICS (TAMIL ENGLISH)

SAMPLE PAPER-20

Part I

1. If the Earth shrinks to 50% of its real radius 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. If the energy of incident beam and the scattered beam are same, then the scattering of light is called as _____.

A. inelastic

B. elastic

C. Raman

D. Rayleigh

Answer: B



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3. One horse power is

A. 764 watt

B. 746 watt

C. 647 watt

D. 674 watt

Answer: B



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4. The IUPAC name of an organic compound is 3-Methyl butan-1-ol. What type compound it is ?

- A. Aldehyde
- B. Carboxylic acid
- C. Ketone
- D. Alcohol

Answer: D



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5. The number of products formed in a synthesis reaction is _____

A. one

B. two

C. three

D. four

Answer: A



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6. Zinc sulphate heptahydrate is also called as.....

A. blue vitriol

B. epsom salt

C. green vitriol

D. white vitriol

Answer: D



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7. Rabbit do not have _____ teeth.

A. incisors

B. canine

C. premolar

D. molar

Answer: B



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8. In a hexaploid wheat ($2n=6x=42$) the haploid (n) and the basic (x) number of chromosomes respectively are:-

A. $n = 7$ and $x = 21$

B. $n = 21$ and $x = 21$

C. $n = 7$ and $x = 7$

D. $n = 21$ and $x = 7$

Answer: D



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9. Heart is made up of ____ muscle .

A. cardiac

B. voluntary

C. involuntary

D. papillary

Answer: A



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10. Decreased secretion of thyroid hormones in the children leads to.....

A. myxoedema

B. tetany

C. cretinism

D. goitre

Answer: C



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11. The centromere is found at the centre of the _____ chromosome.

A. telocentric

B. metacentric

C. submetacentric

D. acrocentric

Answer: B



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12.is the connecting link between reptiles and birds.

A. Peripatus

B. Cockroach

C. Bat

D. Archaeopteryx

Answer: C



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1. Differentiate mass and weight.



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2. What is the use of telescope?



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3. Define critical mass.





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4. What is blue vitriol



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5. Match the following.

	Contraceptives		Type
A.	Multiload 375	(i)	Oral intake
B.	Saheli	(ii)	mechanical
C.	Tubectomy	(iii)	IUD
D.	Valut	(iv)	Surgical



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6. What is diaphragm?



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7. What is the function of Vasopressin?



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8. Name the non-essential and essential organs of a flower.



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9. What are analogous organs?



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10. When an object is placed at 25 cm from a concave lens, a virtual image is produced at a distance 10 cm. Calculate the magnification produced by the lens.

Given $u = -25\text{cm}$

$$v = -10\text{cm}$$

$$m = ?$$



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Part iii

1. State Newton's laws of motion.



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2. (i) List any five properties of light.

(ii) Write the uses of simple microscope.



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3. what is isomorphous?



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4. Write some solubility substances in water at $25^{\circ}C$.



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5. which salt is known as a blue vitriol?



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6. Which among the following are the ores of aluminium ?

(i) Bauxite (ii) Cryolite

(iii) Corundum .



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7. What is the importance of values in the heart ?



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8. Differentiate the following

BOD and COD



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9. Semi-dwarf varieties were introduced in rice. This was made possible by the presence of dwarfing gene in rice. Name this dwarfing gene.



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10. What is the principle used in atom bomb?



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1. Define one calorie.



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2. Two resistors when connected in parallel give the resultant of 2 ohm, but when connected in series the effective resistance becomes 9 ohm ? Calculate the value of each resistance.



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3. (i) Calculate the number of water molecules present in one drop of water which weighs 0.18 g.

(ii) Calculate the number of moles in 27 g of Al.

(iii) Calculate the grams of 22 moles of hydrogen molecule, H_2 .



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4. How is ethanol manufactured from sugarcane ?





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5. The plant which propagates with the help of its leaves is _____.



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6. Name the two types of nuclear division.



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