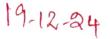
Tsi10S

I.

Tenkasi District Common Half Yearly Examination - 2024





Standard 10 SCIENCE

Marks: 75

Time: 3.00 Hours

	•	Part - 1		•	
Answer all the questions				12x1=12	
	The value of universal gravitational constant in S.I. unit is				
	a) 6.674 × 10 ⁻¹¹ Nm ² kg ⁻²				
	c) 6.674×10^{-11}	Nm ⁻² kg ⁻²	d) 6.674×10^{-11}	1 Nm ⁻² kg ²	
2	Kilowatt hour is the unit of				
_	a) resistivity		b) conductivity		
	c) electrical energy		d) electrical power		
3	If a sound wave travels with a frequency				
,	wavelength will be				
		b) 275.2m	c) 2.752 m	d) 0.02752 m	
4	isotope is used for the treatment of cancer				
	•	b) Radio iodine		d) Radio Nickel	
5)	The gram molecular mass of ammonia is				
,	a) 18 g		c) 16 g	d) 19 g	
6)	Brass is the alloy				
,		b) Cu, Mg	c) Cu, Zn	d) All of them	
7)	The pH of a solution is 3. Its [OH ⁻]concentration is				
	a) $1 \times 10^{-3} \text{M}$	b) 3 M	c) $1 \times 10^{-11} \text{ M}$	d) 11 M	
8)	Which of the follow	/hich of the following is universal solvent?			
	a) Acetone			d) Alcohol	
9)	The endarch condition is the characteristic feature of				
	a) root		c) leaves	d) flower	
•	Which is referred as Master gland?				
		b) Pituitary gland		d) Adrenal gland	
11)	The "use and disuse theory' was proposed by				
	a) Jean Baptise Lamarck		b) Charles Darwin		
	c) Ernst Haeckel		•		
l2)	is the third largest consumer o				
	a) USA	b) China	c) India	d) Russia	
		Part - II			
nswer any 7 questions. (Q.No. 22 is compulsory) 7x2=1					
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- 13) Differentiate concave lens and convex lens
- 14) State law of volume
- 15) Rust is chemically known as Its formula is
- 16) Say True or False and correct false statement
 - i) The reaction between an acid and a base is called neutralisation reaction
 - ii) On dipping a pH paper in a solution, it turns into yellow. Then the solution is basic
- 17) How is diastema formed in rabbit?

18) Match the following:

- Leaf a) Symplastic Pathway
- Plasmodesmata b) Transpiration
- Pressure in Xylem c) Osmosis
- Pressure gradient d) Root pressure

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- 19) Name the parts of hind brain
- 20) What is stage?
- 21) What are Okazaki fragments?
- 22) Calculate the amount of energy released when a radio active substance undergoes fusion and results in a mass defect of 2 kg.

Part - III

III. Answer any 7 questions. (Q.No. 32 is compulsory)

7x4 = 28

- 23) State Newtons laws of motion
- 24) List the merits of LED bulb
- 25) Define i) One roentgen
 - ii) Soddy and Fajan's displacement law

26) Give the applications of Avagadro's law

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- 27) Differentiate Hygroscopic substances and Deliquescent substances
- 28) What is Photosynthesis. Give its reaction
- 29) Enumerate the functions of Blood
- 30) Write the physiological effects of gibberellins
- 31) How do you differentiate homologous organs from analogous organs?
- 32) A solid compound 'A' decomposes on heating into 'B' and a gas 'C'. On passing the gas 'C' through water, it becomes acidic. Identify A, B and C

Part - IV

IV. Answer all the questions.

3x7 = 21

- (i) Ideal gas and real gas 33) a) Distinguish
 - (ii) Myopia and Hypermetropia

(OR)

- b) i) What is echo?
 - ii) State two conditions necessary for hearing an echo.
 - iii) What are the medical applications of echo?
 - iv) How can you calculate the speed of sound using echo?
- 34) a) i) Arrive at, systematically the IUPAC name of the compound CH₃-CH₂-CH₂-OH
 - ii) Draw the structure of the following and say whether its is saturated or unsaturated
 - a) Propane b) Benzene

(OR)

- b) i) What is homologous series? Give any three of its characteristics
 - ii) Define esterification reaction with equation
- 35) a) i) Discuss the importance of biotechnology in the field of medicine
 - ii) Name two maize hybrids rich in aminoacid lysine

(OR)

- b) i) How will you prevent soil erosion
 - ii) What are the agents of soil erosion