

## **BIOLOGY**

# BOOKS - SURA BIOLOGY (TAMIL ENGLISH)

# **SELF-EVALUATION 1 MARKS**

**Mcq Physics** 

1. Inertia of the body depends on

- A. weight of the object
- B. acceleration due to gravity of the planet
- C. mass of the object
- D. both a & b



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2. 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  $300\,\%$



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**3.** In which of the following sport the turning effect of force used ?

- A. swimming
- B. tennis
- C. cycling
- D. hockey



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**4.** Where should an object be placed so that a real and inverted image of same size is obtained by a convex lens.

A. f

B. 2*f* 

C. infinty

D. between f and 2f

## Answer:



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

A. focus

B. infinty

 $\mathsf{C}.\ \mathsf{at}\ 2f$ 

D. between f and 2f

# Answer:



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**6.** Which of the followingg lens would you prefer to use while reading small letters found inn a dictionary?

- A. A convex lens of focal length 5cm
- B. A concave lens of focal length 5cm
- C. A convex lens of focal length 10cm
- D. A concave lens of focal length 10cm



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**7.** The average kinetic energy of the molecules of a substance is called \_\_\_\_\_.

A. difference in K.E and P.E

B. sum of P.E and K.E

C. differnce in T.E and P.E

D. difference in K.E and T.E

#### **Answer:**



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**8.** If a subtance is heated or cooled, the linear expansion occurs along the axis of

A. X or-X

B. Y or -Y

C. noth (a) and (b)

D. (a)or (b)

## **Answer:**



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**9.** The value of universal gas constant is \_\_\_\_\_.

A.  $8.21 J (mol^{-1}) (k^{-1})$ 

B. 
$$8.27 J (mol^{-1}) K(\hat{\phantom{a}} -1)$$

C. `8.31 J mol ^-(1)

D.  $8.31 Jmol^{-\,(\,1\,)}\,K^{\,-\,(\,1\,)}$ 

#### **Answer:**



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**10.** In a simple circuit, why does the bulb glow when you close the switch ?

A. The switch produces electricity

- B. Closing the switch completes the circuitC. Closing the switch break the circuit
  - D. The bulb is getting charged



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11. the resistance of material depends on

----·

A. Temperature

- B. Length of conductor
- C. Area of cross -section
- D. All of these



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**12.** Why are copper wires used as connecting wires ?

A. Low resistivity

- B. Low conductivity
- C. High Resistivity
- D. Both A and B



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**13.** velocity of sound in the atmosphere of a planet is 500ms^-(1). The minimum distance between the sources of sound and the obstacle to hear the echo, should be

A. $17m$
B. $20m$
$C.\ 25m$
D. $50m$
Answer:
Watch Video Solution
<b>14.</b> The audio frequency range is
A. $50KHz$

B. 20KHz

C. 15000KHz

D. 10000KHz

#### **Answer:**



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**15.** The sound waves are reflected from an obstacle into the same medium from which they were incident .Which of the following changes?

A. speed
B. frequency
C. wavelength
D. none of these
Answer:
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<b>16.</b> Gamma radiations are dangerous because
·

A. it affects eyes and bones
B. it affects tissues
C. it produces genetic disorder
D. (d) it produces enormous of heat
Answer:  Watch Video Solution
<b>17.</b> proton-Proton chain reaction is an example of

A. Nuclear fission						
B. alpha -deacy						
C. Nucelar fusion						
D. Beta- decay						
Answer:						
Watch Video Solution						
<b>18.</b> Radio iostope is used in the treatment of cancer.						

A. sodium
B. cobalt
C. iron
D. phosphorous
Answer:  Watch Video Solution
<b>19.</b> The momentum of a heavy object at rest will be

A. large
B. infinity
C. zero
D. small
Answer:  Watch Video Solution
<b>20.</b> is the material used to make the filament in bulbs.

- A. cadmium
- B. tungsten
- C. mercury
- D. none of the above



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Fill In The Blanks Physics

1.	То	produce	а	displacement	 is
required .					



**2.** Change in dimension due to raise in temperature is called \_\_\_\_\_.



**3.** The resistance of a conductor directly proportional to \_\_\_\_\_.



**4.** Amount of light entering into the eye is controlled by \_\_\_\_\_.



**5.** A whistle giving out a sound of frequency 450Hz, approaches a stationary observer at a speed of  $33ms_1$ . The frequency heard by the observer is (speed of sound  $=330ms_1$ .



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**6.** Momentum is a \_\_\_\_\_ quantity .



7.	Anemia	can	be	cured	by	
isc	tope.					



**8.** One calorie is the amount of heat energy required to raise the temperature of \_\_\_\_\_\_ of water through \_\_\_\_\_.



<b>9.</b> LED stands for
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<b>10.</b> is the frequency of the sound as heard by the listener.
Watch Video Solution
<b>11.</b> What is Astigmatism? How it is corrected?
Watch Video Solution

**12.** \_\_\_\_\_ has the greatest penetration power.



**Watch Video Solution** 

**13.** The value of Avogardro's number is \_\_\_\_\_.



**14.** The radioactive isotope used in estimating the age of specimens is \_\_\_\_\_.



**Watch Video Solution** 

**15.** \_\_\_\_\_ lens is thicker at the centre than at the edges.



**16.** ..... is used to change the speed of car.



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**17.** The radio isotope of \_\_\_\_\_ helps to increase the productivity of crops.



**18.** The wiring in a house consists of \_\_\_\_\_ circuit.



**Watch Video Solution** 

**19.** Rapid back and forth motion of a particle about its mean position is called \_\_\_\_.



**20.** The refractive index of a transparent medium is always greater than \_\_\_\_\_.



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21. Nuclear Fusion : Extreme temperature ::

Nuclear fission: \_\_\_\_\_



23. 1kcal:Heat requried:: 1joule:  Watch Video Solution  24. The unit of moment of force	<b>22.</b> Violet : lowest wavelength :: Red :				
Watch Video Solution  24. The unit of moment of force	Watch Video Solution				
Watch Video Solution  24. The unit of moment of force					
	. ,				
Watch Video Solution	24. The unit of moment of force  Watch Video Solution				

**25.** Iron :  $5950ms^1$ ::Water :\_\_\_\_\_



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# Statement Type Questions Physics

**1.** Apparent weight of a person is always equal to his actual weight



**2.** MCB is used to protect house hold electrical appliances.



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**3.** True or False. The velocity of sound is independent of temperature .



**4.** Increase in the converging power of eye lens cause 'hypermetropia'.



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**5.** Einstein's theory of mass energy equivalence is used in nuclear fission and fusion. State whether true or false.



**6.** Nichrome has the highest resistivity of  $3.5 imes 10^8$  gamma m.



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**7.** Heat energy flows from high temperature to low temperature



**8.** True or False. The amount of energy passing per second through until area is called intensity of sound



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**9.** What is the value of zero kelvin on Celsius scale?



**10.** One unit of electrical energy consumed is equal to 1000 kilowatt hour.



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11. Turning a nut with a spanner having a short handle is so easy than one with a long handle.



12. Plutonium -239 is a fissionable material. :

True or False



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**13.** According to charles's laws, at constant presssure the temperature is inversely proportional to volume.



**14.** The geometrical centre of the lens is called optical centre.



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**15.** The convex lens always gives small virtual image.



**Watch Video Solution** 

**16.** Fuse wire is an alloy of

17. concave lens is used as 'magnifying lens'.



**Watch Video Solution** 

**18.** True or False. A person 's apparent weight inside the lift increase when lift is accelerated upward.



**19.** Waves created by Earth Quake are infrasonic.



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**20.** Nuclear fusion is more dangerous than nuclear fission.: True or False



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**Assertion And Reason Physics** 

**1.** Assertion: The value of 'g' decreases os height and depth increases from the surface of the Earth.

Reason: 'g' depends on the mass of the object and the Earth.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If a both the assertion and the reason are true and the reason is the correct explanation of assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

### **Answer:**



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2. Assertion: The process of transferring heat energy from lower temperature to higher temperature is called cooling. Reason: The mass of the system is not altered when it is cooled.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

### **Answer:**



**3.** Assertion: Electric appliances with a metallic body have three wire connections.

Reason: Three pin connections reduce heating of the connecting wires.

- A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.
- B. If both the assertion and the reason are true . but the reason is not the correct

explanation of the assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

### **Answer:**



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**4.** Assertion: If the refractive index of the medium is high (denser medium) the velcoity of the light. In that medium will be small.

Reason: Refractive index of the medium is

inversely proprotional to the velocity of the light.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

### **Answer:**



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**5.** Assertion: In a  $\beta$ -decay, the neutron number decreases by one.

Reason: In  $\beta$ -decay atomic number increases by one.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

### **Answer:**



**6.** Assertion: If Earth suddenly stops rotating, the value 'g' becomes same at all places.

Reason: 'g' depends on the distance between two objects.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

### **Answer:**



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7. Asseration: Bending of the light rays from its original path at the interface of the two media is called 'Refraction. Reason: whenever the light travels from denser medium to rarer medium. It bends away from the normal.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

### **Answer:**



8. Asseration: There is no effecta on other end when one end of the rod is only heated.

Reason: Heat always flows from a region o lower temperature to higher temperature of the rod.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

### **Answer:**



**9.** Assertion: LED bulbs are far better than incandescent bulbs.

Reason: LED bulbs consume less power than indanescent bulbs.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

### **Answer:**



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**10.** Assertion: Control rods are known as 'neutron seeking rods'.

Reason: Control rods are used to perform substained nuclear fission reaction.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true, but the reason is not the correct explanation of the assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

### **Answer:**



# **Answer In One Word Physics**

1. What is lightning?



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**2.** How are the wavelength and frequency of a sound related to its speed?



**3.** What is the average energy released from a single fission process ?



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4. Explain the function of iris.



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**5.** Define electric energy its commerical units.



# **Mcq Chemistry**

**1.** The Volume occupied by 4.4 g of  $CO_2$  at S.T.P

A. 22.4litre

B. 2.24 litre

 $\mathsf{C.}\ 0.24\mathsf{litre}$ 

 ${\rm D.}\ 0.1 l{\rm itre}$ 

### **Answer:**

- 2. A solution is a \_\_\_\_ mixture.
  - A. homogeneous
  - B. heterogeneous
  - C. homogeneous and heterogeneous
  - D. non homogeneous

**Answer:** 



**3.** A reaction between carbon and oxygen is represented by  $C_{(s)}+O_{2(g)}\to CO_{2(g)}+$  Heat . In which of the type (s) , the above reaction can be classified ?

(i) Combination Reaction

(ii) Combustion Reaction

(iii ) Decomposition Reaction

(iv ) Irreversible Reaction

A. i and ii

B. i and iv

C.	l.ii	and	iii
C.	,,,,	anu	111

D. I,ii and iii

### **Answer:**



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4. In the alumino thermic process, the role of

Al is \_\_\_\_\_

A. oxidizing agent

B. reducing agent

- C. hydrogenating agent
- D. sulphurising agent

### **Answer:**



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

A. Aldehyde

C. Ketone		
D. Alchole		
Answer:		
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<b>6.</b> 1 Mole of any substance contains molecules .		
A. $6.023 imes10^{23}$		

B. Carboxylic acid

B.  $6.023 \times 10^{-23}$ 

C.  $3.0115 imes 10^{23}$ 

D.  $12.046 imes 10^{23}$ 

### **Answer:**



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**7.** Electronegativity values of Na and Cl are 0.9 and 3.0 respectively, perdict the nature of bonding .

- A. Ionic
- B. Covalent
- C. Coordinate
- D. Metallic

### **Answer:**



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**8.** Which of the following statement is wrong about detergents ?

A. It is a sodium salt of long chain fatty acids

B. It is sodium salts of sulphonic acids

C. The ionic part in a detergent is

$$-SO_3-Na^+$$

D. It is effective even in hard water.

### **Answer:**



**9.** A beaker contains a solutions of copper sulphate . Recipitaion of copper sulphate takes place when small amount of it added to solution .

A. Saturated

B. Super saturated

C. Unsaturated

D. Concentrated

### **Answer:**



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**10.** 
$$CaCO_{3(s)} \xrightarrow{\text{Heat}} CaSO_{(s)} + CO_{2(aq)}$$

The above thermal decompostion reaction is an \_\_\_\_\_ reaction .

A. endothermic

B. exothermic

C. both (a) and (b)

D. neither (a) nor (b)

Answer:

11. Which of the following has largest number of particels?

A. 8g of  $CH_2$ 

B. 4.4g of  $CO_2$ 

C. 34.2g of  $C_{12}H_{12}O_{11}$ 

D. 2g of  $H_2$ 

### **Answer:**



# 12. A 25 % alcohol solution means

- A. 25ml alcohol in 100ml of water
- B. 25ml alcohol in 25ml of water
- C. 25ml alcohol in 75ml of water
- D. 75mlalcohol in 25ml of water

#### **Answer:**



**13.** which of the folloeing represent a precipitation reaction ?

A. 
$$A_s + B_s 
ightarrow C_s$$

B. 
$$A_s + B_{aq} 
ightarrow C_{aq} + D_l$$

C. 
$$A_{aq}+B_{aq}
ightarrow C_s+D_{aq}$$

D. 
$$A_{aq}+B_s
ightarrow C_{aq}+D_l$$

# **Answer:**



**14.** Rectified spirit is an aqueous solution which contains about \_\_\_\_\_ of ethanol .

- A. 95.5~%
- B. 75.5~%
- C.  $55.5\,\%$
- D. 45.5~%

#### **Answer:**



**15.** \_\_\_\_group contains the members of halogen family .

- A.  $17^t h$
- B.  $18^t h$
- C.  $15^t h$
- D.  $16^t h$

# **Answer:**



# 16. The mass of one C atom is:

A. 
$$6.023 imes 10^{23} extsf{g}$$

B. 
$$1.99 imes 10_{-23} g$$

D.12g

#### **Answer:**



17. \_\_\_\_ Is an important metal to from amalgam

A. Ag

B. Hg

C. Mg

D. Al

# **Answer:**



**18.** Methylene group is \_\_\_\_\_

A.  $CH_4$ 

 $B.-CH_3$ 

 $\mathsf{C.}-CH_2$  -

D.-CH-

# **Answer:**



**19.** Powered  $CaCO_3$  reacts more rapiddly than

flaky  $CaCO_3$  because of \_\_\_\_.

A. large surface area

B. high pressure

C. high contration

D. high temperature

#### **Answer:**



20. Identify the non - aqueous solution.

A. sodium chloride in water

B. glucose in water

C. copper sulphate in water

D. sulphur in carbon-di-sulphide

### **Answer:**



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Fill In The Blanks Chemistry

the component present in lesser amount , in a solution is called \_\_\_\_.



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**2.** Atoms of one element can be transmuted into atoms of other element by \_\_\_\_.



**3.** When lithium metal is placed in hydrochloric acid,\_\_\_\_ gas is evolved.



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**4.** \_\_\_\_\_ forms the basis of modern periodic table .



5. General molecular formula of alkynes is								
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<b>6.</b> Polar compounds are soluble in solvents								
Watch Video Solution								
7. Number of protons and number of electrons								
are always equal in								



8. Ethanoic acid turns



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9. The scientist who propounded the modern periodic law is



10.	Benzene	is	an	exmaple	of	
compound .						



**11.** One mole of any gas occupies \_\_\_\_ ml at

S.T.P



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of oxygen is called as
12. A chemical reaction which involves addition

**13.** Electrolysis is type of \_\_\_\_\_reaction .



**14.** The chemical name of rust is \_\_\_\_\_\_.



**15.** The gas formed during the decarboxylation of sodium salt of ethanoic acid is \_\_\_\_\_\_



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**16.** \_\_\_\_ are example for solubility of gas in liquid .



17.	of	element	explains	periodic
recurrence of	phy	sical and	chemical p	roperties



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**18.** \_\_\_\_\_ gas exists in two allotropic forms.



19. The pH of a fruit juice is 5.6. If you add slaked lime to this juice, its pH (increase / decrease)



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20. Organic compound have a structure.





24. Mendeleev's periodic table: Atomic mass::

Moseley modern table : \_\_\_\_\_\_



**25.** Energy is released : Combination reaction ::

energy is absorbed:\_\_\_\_\_.



# **State Statement Chemistry**

**1.** Two elements sometimes can form more than one compound .



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**2.** Ionic radius increases across the period from left to right .



3. When silica gel is kept open, it absorbs moisture from the air, because it is hygroscopoic in nature



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**4.** Silver metal can displace hydrogen gas from nitric acid.



5. Consumption of ethanol affects our central nervous system.



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**6.** Molar mass of  $CO_2is42g$ .



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**7.** Electron affinity is not a periodic property.



**8.** Sodium chloride dissolved in water forms a non - aqueous solution .



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**9.** Periodical removal of one of the products of a reversible reaction increases the yield .



10. The gram atomic mass of an element has no unit



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11. Aluminium is very good oxidising agent



**Watch Video Solution** 

**12.**  $A+BC \rightarrow AC+B$  is a souble displacement reaction.

**13.** Detergents are sodium salts of sulphonic acids .



**14.** An electron has mass that is very much less than proton.



**15.** A1 wires are used as electric cables due to their silvery white colour.



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**16.** Solutions which contains three components are called binary solution.



**17.** Both physical and chemical changes attain equillibrium.



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# **Aseeration And Reason Chemistry**

**1.** Assertion: atomic mass of aluminium is 27

Reason : an atom of aluminium is 27 times heavier than  $\frac{1}{12^{th}}$  of the mass of the C- 12 atom .

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

# **Answer:**



**2.** Assertion: Magnesium is used to protect steel from rusting.

Reason: Magnesium is more reactive than iron.

- A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.
- B. If both the assertion and the reason are true and the reason is the correct

explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

#### **Answer:**



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**3.** Assertion : Sodium chloride f ( table salt ) is

dissolved in water

Reason: Polat substances are solble in polar solvents.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

# **Answer:**



**4.** Assertion : Alkanes are saturated hydrocarbons.

Reason: Hydrocarbons consist of covalent bonds.

- A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.
- B. If both the assertion and the reason are true and the reason is the correct

explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

#### **Answer:**



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**5.** Asseration: Combustion reactions are also called as an exothermic oxidation reaction. Reasons In these reactions ,oxygen is added and heat energy is released.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

# **Answer:**



**6.** Assertion: the relative molecular mass of chlorine is 35.5 a.m.u

Reason: the natural abundance of chlorine isotopes are not equal.

- A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.
- B. If both the assertion and the reason are true and the reason is the correct

explanation of assertion.

C. Assertion is true ,but the reason is false.

D. Assertion is false ,but the reason is true .

#### **Answer:**



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7. Asseration: Detergents are more effective cleansing agents than soaps in hard water.,

Reasons: Calcium and magnesium salts of detergents are water soluble.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is false ,but the reason is true.

D. Assertion is true ,but the reason is false .

## **Answer:**



8. Asseration: Colour of copper sulphate change when an iron nail kept init`

Reasons: Copper is displaced by iron and iron sulphate is formed.

- A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.
- B. If both the assertion and the reason are true and the reason is the correct

explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

#### **Answer:**



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9. Assertion: sulphur dissolves in water.

Reason: Non polar substances are soluble in non polar solvents

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

## **Answer:**



**10.** Assertion : Al is very good reducing agent.

Reason: It is used in Alumino thermic process

•

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct

explanation of assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .



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# **Answer One Word Chemistry**

**1.** Who proposed that volume of a gas at given temperature and pressure is proportional to number of particles?



2. What are the ions in aqueous solutions?



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**3.** What is the power of alcohol?



**4.** The process of reducing the roasted oxide ore to metal under molten condition.



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**5.** What is meant by binary solution?



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Mcq Biology

<b>1.</b> Casparian strips are present in the
of the root.
A cohuny
A. cotrex
B. pith
C. pericycle
D. endodermis
Answer:
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<b>2.</b> The	animals	which	give	birth	to	young	ones
are							

- A. Ovaiparous
- **B.** Viviparous
- C. Ovoviviparous
- D. All of above



3.	Site	for	processing	of	visio	n,hearing
me	mory,	spece	ch,intelligence	e a	nd	throught
is_						

A. Kidney

B. ear

C. brain

D. lungs

## **Answer:**



- 4. Indentify the exocrine gland
  - A. Thyroid gland
  - B. Pituitary gland
  - C. Adrenal gland
  - D. Salivary gland



5. Kreb's cycle takes place in

A. chloroplast

B. mitochondrial matrix

C. stomata

D. inner mitochondrial membrane

**Answer: A::D** 



## 6. Active transport involves

A. movement of molecules from lower to

higher concentration

- B. expenditure of energy
- C. it is an uphill task
- D. All of above

#### **Answer:**



- **7.** Estrogen is secreted by \_\_\_\_\_.
  - A. Anteriror pituitary
  - B. Primary follicle
  - C. Graafian follicle
  - D. Corpous luteum



**8.** The neurons which carries impulse from the central nervous system to the muscle fibre.

A. afferent neurons

B. association neuron

C. efferent neuron

D. unipolar neuron

#### **Answer:**



- **9.** What is true of gametes?
  - A. They are diploid.
  - B. They give rise to gonads.
  - C. They produce hormones.
  - D. They are formed from gonads.



**10.** Which one of the following hormones is naturally not found in plants:

A. 
$$2, 4 - d$$

C. Gibberillin

D. IAA

#### **Answer:**



<b>11.</b> The	brain	of l	leech	lies	above	the

A. Mouth

**B. Buccal Cavity** 

C. Pharnyx

D. Crop

## **Answer:**



**12.** PNS is formed of \_\_\_\_ pairs of cranial nerves in Rabbit.

- A. 10
- B. 12
- **C.** 14
- D. 16

### **Answer:**



<b>13.</b> acts as a insulator.
A. mylein sheath
B. synaptic junction
C. nodes of ranvier
D. glial cells
Answer:
Watch Video Solution
<b>14.</b> Syngamy results in the formation of

B. Conidia
C. Zygote
D. Chlamydospores
Answer:
Watch Video Solution
<b>15.</b> The wall of human heart is made of
A. Endocardium

A. Zoospores

C. Myocardium			
D. All of above			
Answer:			
Watch Video Solution			
<b>16.</b> Vomiting centre is located in			
A. medulla oblongata			
B. stomach			

B. Epicardium

- C. ceredrum
- D. hypothalamus



- **17.** Which endocrine gland is called "Master gland" ? Why?
  - A. Pineal gland
  - B. Pituitary gland

- C. Thyroid gland
- D. Adrenal gland



- **18.** \_\_\_\_\_ helps in transpiration.
  - A. Stomata
  - B. Epidermis
  - C. Trichomes

D. Root hairs

### **Answer:**



**Watch Video Solution** 

19. In leech locomotion is performed by

- A. Anterior sucker
- B. Posterior sucker
- C. Setae
- D. None of the above



- **20.** Which one of the following regarding blood composition is correct
  - A. Plasma-Blood+Lymphocyte
  - B. Serum-Blood+Fibrinogen
  - C. Lymph-Plasma+RBC+WBC
  - D. Blood-Plasma+RBC+WBC+Platelets



Watch Video Solution

# Fill In The Blanks Biology

**1.** Xylem and phloem occurring on the same radius constitute a vascular bundle called

----·



**2.** is the longest cell in our body . **Watch Video Solution 3.** All the four channels of circulatory system are connected together in \_\_\_\_\_ segment of leech **Watch Video Solution 4.** causes cell elogation,apical dominance and prevent abscission.



**5.** The implantation of the embryo occurs at about \_\_\_day of fertillization .



**6.** \_\_\_\_\_ is ATP factory of the cells.



<b>7.</b> The normal hur	nan heartbest	rate is	about
times per mi	nute .		



**8.** \_\_\_\_ carries the impulse towards the cell body.



9	separate	nitrogenous	waste	from
the blood i	n rabbit.			



**10.** Gibberelins induce stem elongation in plants.



11 involes evporative loss of water
from aerial parts .
Watch Video Solution
12. Implantion takes place in of uterus .  Watch Video Solution
<b>13.</b> and root hairs are the epidermal outgrowths.



**14.** A neuron contains all cell organelles except\_\_\_\_



**15.** Each segment is superfically subdivided into rings or \_\_\_\_ in leech.



<b>16.</b> After fertillization , the ovary devlops into
·
Watch Video Solution
17. Structures in roots that help to absorb
water are
Watch Video Solution

**18.** The existence of two sets of teeth in the li fe of an animal is called \_\_\_\_\_ dentition.



**Watch Video Solution** 

**19.** The part of humnan brain which acts as relay centre is .



20.	Fill	in	the	blanks:

- (i) \_\_\_\_causes stomatal closure.
- (ii) The growth and functions of thyroid gland is controlled by \_\_\_.



**21.** Glycolysis: Cyptoplasm::Kreb's cycle:\_\_\_\_.



<b>22.</b> Outer: Duramater :: Inner:						
Watch Video Solution						
<b>23.</b> Granulocytes: eosinophils: Agranulocytes:						
Watch Video Solution						
<b>24.</b> One nerve process:Unipolar neurons Two nerve process:						



25. Grapes : Cross Pollination :: Hibiscus :

\_\_\_\_\_



# State Statement Biology

**1.** Phloem tissue is involved in the transport of water in plant.

**2.** The vas deference serves to transport the ovum.



**3.** WBC defend the body from bacterial annot viral infections.



**4.** All the nerves in the body are covered and protected by meaninges.



**Watch Video Solution** 

5. Gibberellins cause parthenocarpy in tomato



**Watch Video Solution** 

**6.** A pair of Cowper's gland and perineal gland are the accessory glands present in the male reproductive system of Rabbit.



**7.** Seeds are the product of asexual reproduction .



**8.** Dendrons are the longest fibres that conducts impulse away from the cell body.



**9.** In the concentric type of bundle, the phloem is present on both outer and inner side of xylem.



**Watch Video Solution** 

**10.** The cerebral hemispheres of rabbit are connected by band of nerve tissue called corpora quadrigemina.



11. When guard cells lose water the stoma opens



**Watch Video Solution** 

12. Menstrual cycle ceases during pregnancy. (True/False)



**Watch Video Solution** 

13. Pons helps in regulating respiration.



14. Estrogen is secreted by corpus luteum.



**Watch Video Solution** 

**15.** Insect pollinated flowers are characterized by dry and smooth pollen.



**16.** Cerebrum controls the voluntary actions of our body.



**Watch Video Solution** 

17. Plants lose water by the process of transpiration.



**Watch Video Solution** 

**18.** Mesophyll contains chlorophyll.



**19.** Ovary of leech is a coiled ribbon shaped structure.



**20.** Testosterone is essentail for formation of placenta.



# **Asseration And Reasons Biology**

**1.** Assertion: Young root contains pith whereas in old root pith is absent.

Reason: Pith is soft and spongy Young root contains pith but as the tree matures it spith transforms into other cells.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

# **Answer:**



**2.** Asseration :In adult rabbit , the excretory and genital system become inter connected.`

Reason: Sexual dimorphism is seen in rabbit.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

#### **Answer:**



**Watch Video Solution** 

**3.** Asseration (A): Asexual reproduction occurs by spore formation in fungal hypha. Reasons (R): The nucleus divides several times within the sporangium and each nucleus with small amount of cytoplasm develops into a spore.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

### **Answer:**



**4.** Asseration (A): Diabetes mellitus increases the blood sugar levels.Reasons(R): Insulin decreases the blood sugar levels.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

#### **Answer:**



**Watch Video Solution** 

**5.** Seeds are the product of asexual reproducation. Reasons : In respiration the energy released from glucose is used to make ATP.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

### **Answer:**



**6.** Assertion: The sound of heart beats, heart valve functions can be detected by a stethoscope.

Reason : Stethoscopes are high precisioned Instruments.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

# **Answer:**



**7.** Assertion : Conjunctive tissue is made up of parenchyma in dicot roots.

Reason: Conjunctive tissue is made up of sclerenchyma in monocot roots.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

#### **Answer:**



**Watch Video Solution** 

**8.** Asseration :Tracheal walls are supported by rings of cartilage. It helps in the free passage of air .

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

### **Answer:**



**9.** Asseration :Osmosis is active monement of water. Reasons : It occurs through a semipermeable membrane.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

#### **Answer:**



**Watch Video Solution** 

10. Asseration: cerebrospinal fluid is present throughtout the central nervous system.
Reasons: cerebrospinal fluid has no such functions.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

### **Answer:**



# One Word Answer Biology

1. The matrix of chloroplast is called \_\_\_\_\_\_.



**Watch Video Solution** 

2. Which kind of cells are found in the lymph?



**3.** Mention the function of endosperm.



4. What does CNS stand for



**Watch Video Solution** 

5. Four rounded bodies found in mid brain



# **Mcq Science**

_	VA / I . I	C.	•				•	. •	~
1.	Which	software	ıs	used	tΩ	create	anıma	tior	ነ /
	<b>V V I I I C I I</b>	Joicvanc		asca		CICALC	aiiiiia	CIOI	

- A. Paint
- B. PDF
- C. MS Word
- D. scratch

#### **Answer:**



2. The number of chromosomes found in human beings are\_\_\_\_\_

A. 22 pairs of autosomes and 1 pair of allosomes .

B. 22 autosomes and 1 allosome.

 $\mathsf{C.}\ 46\ \mathsf{autosomes}\ .$ 

D. 46 pairs autosomes and 1 pair of allosomes.

**3.** Himagiri developed by hybridisation and selection for disease resistance against rut pathogens is a variety of \_\_\_\_

A. chilli

B. maize

C. sugarcane

D. wheat

**4.** Tobacco consumption is known to stimulate secretion of adrenaline. The componemt causing this could be

A. Nicotine

B. Tannic acid

C. Curcumin

D. Leptin

5. Which of the following is/are a fossil fuel?

i.Tar ii. Coal iii. Petroleum

A. i only

B. i and ii

C. ii and iii

D. I,ii and iii



# Watch Video Solution

- **6.** Which is used to build scripts?
  - A. Script area
  - B. Block palette
  - C. Stage
  - D. Sprite

#### **Answer:**



# **7.** rDNA is a\_\_

- A. vector DNA
- B. circular DNA
- C. recombinant of vector DNA and desried

DNA

D. satellite DNA

#### **Answer:**



S

- A. petroluem
- B. coal
- C. nuclear fuel
- D. trees

## **Answer:**



9. Forest conservation Act was passed in

\_\_\_\_\_

A. 1952

B. 1958

C. 1978

D. 1980

#### **Answer:**



10.	Where	does	alcohol	effect	immediately
afte	er drinkiı	ng?			

- A. Eyes
- B. Auditory region
- C. Liver
- D. Central nervous system

# Answer:



**11.** According to Mendal ,alletes have the following character

- A. Pair of genes
- B. Resposible for character
- C. Production of gametes
- D. Recissive factors

#### **Answer:**



<b>12.</b> Medical waste is disposed by	
A. Sanitary land fill	
B. Incineration	
C. Composting of plants	
D. Segregation	





Watch Video Solution

13. Green house effect refers to

- A. cooling pf the earth
- B. trapping of Uv rays
- C. cultivation of the plants
- D. warming of earth

## **Answer:**



- 14. Where you will create category of blocks?
  - A. Block palette

- B. Block menu
- C. Script area
- D. Sprite

#### **Answer:**



**Watch Video Solution** 

**15.** In adult rabbit the excretory and genital system is not interconnected.



<b>16.</b> The project for conservation of
was launched in 1976
A. tiger
B. elephant
C. lion
D. crocodile
Answer:

17. Excessive consumption of alcohol leads to



**18.** The centromere is found at the centre of the \_\_\_\_ chromosome.



**19.** Which button we use to select a required program?

A. Program button Metacentric
B. Restart buttons
C. MY computer
D. Start Button
Answer: A::B::C  Watch Video Solution
<b>20.</b> DNA fingerprinting was developed by

- A. Dr.lan Wilmut
- B. Alec leffrey
- C. Lilly
- D. Dr. Norman

### **Answer:**



**Watch Video Solution** 

Fill In The Blanks Science

<b>1.</b> The	characters	on	the	background	of	a
scratc	h window is l	know	vn as			
	Watch Video	Soli	ution			

2. Physical expression of a gene is called \_\_\_\_\_



**3.** Restriction endonucleases cut the DNA molecule at specific positions known as\_\_\_\_.



**4.** PUFA stands for \_\_\_\_\_.



**5.** Removal of soil particles from the land is called .



6. The output we get from any application is
commonly referred as
Watch Video Solution
7 scts as aging clock in every cell.
Watch Video Solution



**8.** Tidal energy is \_\_\_\_\_ type of energy.

**9.** NACO stands for \_\_\_\_\_



Watch Video Solution

10. \_\_\_\_\_ is a good example for Visual

Communication Device.



**11.** The scientific process which produces crop plant enriched with desirable nutrients is called\_\_\_\_\_.



Watch Video Solution

**12.** \_\_\_\_\_ is the most commonly used fuel for the production of electricity.



**13.** Cirhosis is caused in liver due to excessive use of .



Watch Video Solution

**14.** Proper utilization and management of nature and its resources is termed as

-----·



<b>15.</b> is used to choose the block to use.
Watch Video Solution
16. An inheritable change in the amount or the structure of a chromosome is called  Watch Video Solution
<b>17.</b> Solar cell is made of
Watch Video Solution

**18.** In gene cloning,the DNA of intrest is intergrated is a\_\_\_\_.



Watch Video Solution

**19.** Less response of a drug to a specific dose with repeated use is called \_\_\_\_\_.



**20.** Economically important crop plants with superior quality are raised by \_\_\_\_\_



Watch Video Solution

**21.** Diabetes mellitus decreases the sugar level of blood.



<b>22.</b> Chemotherapy : Chemicals : Radiation
therapy:
Watch Video Solution
<b>23.</b> Chromium : Asthmatic bronchitis:: Cadmium :
Watch Video Solution
<b>24.</b> Cauliflower :Black rot: Cowpea:



**25.** HDL : Good cholesterol :: LDL : \_\_\_\_\_



State Statement Science

1. Multiple folders combine to form a file.



**2.** A recessive factor is altered by the presence of a dominant factor.



**Watch Video Solution** 

**3.** Auxins are efficient than gibberellins in inducing the formation of seedless fruits.



**4.** Iron fortified rice variety determines the protein quality to the cultivated plant.



**Watch Video Solution** 

**5.** Cancer causing genes are called Oncogenes.



**Watch Video Solution** 

6. Scratch is difficult to use and do programming

**7.** Some of the chromosomes have an elongated knob-like appendage known as telomere.



8. Biogas is fossil fuel.



9. 2,4-D is a natural plant hormone.



**Watch Video Solution** 

10. Molecular scissors refers to DNA ligases.



**Watch Video Solution** 

**11.** AIDS is not transmitted by contact with a patient's clothes.



12. Overgrazing prevents soil erosion.



**Watch Video Solution** 

**13.** In scratch, to run a program we need to click the red button.



**14.** Triploid plants and animals produce many offsprings.



Watch Video Solution

**15.** Wild life protection act was established in 1972.



**16.** Abiogenesis theory states that life originates from pre-existing life.



**Watch Video Solution** 

17. Nicotine is a narcotic drug.



**Watch Video Solution** 

**18.** The process of producing an organism with more than two sets of chromosome is called

mutation. **Watch Video Solution** 19. Sprite is the background appearing when we open the scratch window. **Watch Video Solution** 

**20.** What is GA3?



# **Asseration And Reasons Science**

**1.** Give an example of natural and artificial auxin.



**Watch Video Solution** 

**2.** Assertion:Hybrid is superior than either of its parents.

Reason:hybrid vigour is lost inbreeding.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

## **Answer:**



3. Assertion: Nilgiris is a bio-reserve.

Reason: The flora and fauna must be conserved.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

- C. Assertion is true ,but the reason is false .
- D. Assertion is false ,but the reason is true .

#### **Answer:**



**Watch Video Solution** 

**4.** Assertion: Aids virus has been found in urine of patients affected by AIDS

Reason: Person should be kept isolated from the family.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

## **Answer:**



**5.** Asseration(A): Ginkgo biloba is a living fossil. Reason(R): Ginko biloba has persisted and remain unchanged for the past several million years, while its relatives disappered.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct

explanation of assertion.
C. Assertion is true ,but the reason is false .
D. Assertion is false ,but the reason is true .
Answer:
Watch Video Solution
6 Auxin was introduced by

**7.** Assertion: Ooranis are traditional methods of collecting Rain water

Reason : Ooranis are used for domestic purpose.

A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

#### **Answer:**



**Watch Video Solution** 

**8.** Auxins are the most abundantly found plant hormones.



- **9.** Assertion :Human female are homogametic Reason:In female,the gametes or the eggs formed are similar in their sex chromsome type.
  - A. If both the assertion and the reason are true and the reason is the correct explanation of assertion.
  - B. If both the assertion and the reason are true and the reason is the correct explanation of assertion.

C. Assertion is true ,but the reason is false .

D. Assertion is false ,but the reason is true .

#### **Answer:**



**Watch Video Solution** 

**10.** Progesterone is secreted by graafian follicle.



# **Anser The One Word Science**

1. What is 'NOTEPAD' app, ication used for?



**Watch Video Solution** 

**2.** Who received the Nobel prize for his work on role of chromosomes in heredity?



3. Name the non - violent agaitation aimed at protection of tress.



**Watch Video Solution** 

4. Which organism is considered to be the fossol bird?



**Watch Video Solution** 

5. Factors which induce mutatiom.

