

# **Monthly Progressive Test**

Class: IX

Subject: PCMB



Test Booklet No.: MPT010 Test Date: 1 0 0 2 2 0 2 5

Time: 120 mins Full Marks: 200

### Important Instructions:

- 1. The Test is of 120 mins duration and the Test Booklet contains 100 multiple choice questions of single correct option only. There are four sections with four subjects. You have to attempt all 100 questions (Candidates are advised to read all 100 questions). Questions 1 to 25 contain Physics, Questions 26 to 50 contain Chemistry, Questions 51 to 75 contain Mathematics, Questions 76 to 100 contain Biology.
- 2. Each question carries 2 marks. For each correct response, the candidate will get 2 marks. There is no negative mark for wrong response. The maximum mark is 200.
- 3. Use Blue / Black Ball point Pen only for writing particulars marking responses on Answer Sheet.
- 4. Rough work is to be done in the space provided for this purpose in the Test Booklet only.
- 5. On completion of the test, the candidate must handover the Answer Sheet to the invigilator before leaving the Room / Hall. The candidates are allowed to take away this Test Booklet with them.
- 6. The CODE for this Booklet is Off Line MPT1010022025.
- 7. The candidates should ensure that the Answer Sheet is not folded. Do not make any stray marks on the Answer Sheet. Do not write your UID No. anywhere else except in the specified space. Use of white fluid for correction is NOT permissible on the Answer Sheet. **Do not scrible or write on or beyond discrete bars of OMR sheet at both sides**.
- 8. Each candidate must show on-demand his/her Registration document to the Invigilator.
- 9. No candidate, without special permission of the Centre Superintendent or Invigilator, would leave his/her seat.
- 10. Use of Electronic Calculator/Cellphone is prohibited.
- 11. The candidates are governed by all Rules and Regulations of the examination with regard to their conduct in the Examination Hall. All cases of unfair means will be dealt with as per Rules and Regulations of this examination.
- 12. No part of the Test Booklet and Answer Sheet shall be detached under any circumstances.
- 13. There is no scope for altering response mark in Answer Sheet.

## **Space For Rough Works**

## **Physics**

- **1.** Is hatred a physical quantity?
  - A No

B Yes

- © may be yes
- we can't say
- **2.** The perimeter of a circle is  $2\pi r$ , where r is the radius of the circle. Is perimeter
  - A Base quantity

B derived quantity

© Both (A) and (B) are correct

- we can not say
- **3.** Of the speeds 32 km/h and 10 m/s, which is greater?
  - **(A)** 32 km/h
- **B** 10 m/s
- © may be 10 m/s
- **©** may be 32 km/h.
- 4. A force acts on an object north wards, and the object moves in the south-west direction. work done by the force is
  - A zero

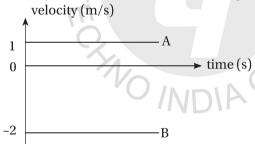
- B positive
- © negative
- nay be negative
- **5.** if the time required by a planet to go round the sun is denoted by T and its mean distance from the sun is denoted by D then  $T = D^n$ , what is the value of n.
  - A 3

**B** 2

© 1

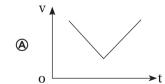
- **6.** The direction of the resultant force on a particle that moves with a uniform speed in a circular path of radius R is
  - (A) towards the centre of circle

- B Along the tangent of circle
- © may be towards the centre of circle
- may be along the tangent of circle.
- **7.** The velocity-time plots of two objects A and B are shown in the figure.

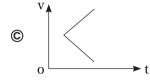


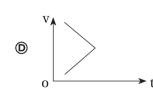
**A** B is moving faster than A

- B Separation between the two increases
- © Separation between the two decreases
- **©** Both (A) and (B) are correct.
- **8.** Look at the proposed v-t (velocity time) graph (in one dimensional motion). Select the correct one.

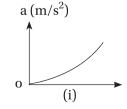


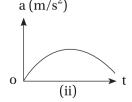
(B) (V)



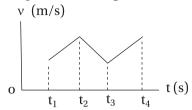


**9.** Two particles, A and B, move along the same straight line. At t = 0, their velocities are zero.

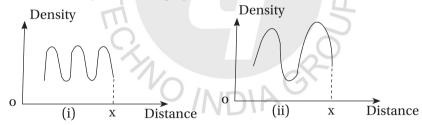




- A The velocity of each particle is continuously increasing.
- The velocity of each particle is continuously decreasing
- © The velocity of A increases continuously but that of B decreases continuously.
- none of the above.
- **10.** The velocity-time graph of a particle moving eastwards is shown is figure



- $oldsymbol{\Theta}$  For the time interval  $t_1 t_2$ , the direction resultant force acting on it is eastward.
- B For the time interval  $t_2$   $t_3$ , the direction of resultant force acting on it is westward.
- $\bigcirc$  For the time interval  $t_3$   $t_4$ , the direction of resultant force acting on it is north ward.
- **(B)** both (A) and (B) are correct.
- **11.** A ball is thrown up, it reaches a maximum height and then returns. Which of the following have the same values during the upward and downward motions?
  - A Force of gravity
- B Displacement
- © height
- work done by gravity.
- **12.** Given below, air density distance graphs for two different sounds in two different regions.



- (i) The frequency in figure (ii) is greater than frequency in figure (i)
- ® The frequency in figure (ii) is less than frequency in figure (i)
- © may be (A)
- none of these.
- **13.** Consider a cylindrical rod immersed in water in a vertical position. The force by the water on the rod is
  - (A) downwards everywhere
  - **B** upwards everywhere
  - © downwards on the top surface, upwards on the bottom surface
  - D upwards on the top surface, downwards on he bottom surface
- **14.** To open the door of a room, we push on the handle, and to close it we pull on the handle. The work done by us on the handle is
  - A Negative in both cases
  - B positive in both cases
  - © positive while opening the door but negative while closing it
  - positive while closing the door but negative while opening it.

**15.** A sound wave is generated due to a vibrating tuning fork. The separation between a layer of maximum compression and next layer of normal density is

A λ

 $\blacksquare$   $\frac{\lambda}{2}$ 

 $\bigcirc$   $\frac{3\lambda}{4}$ 

 $\bigcirc$   $\frac{\lambda}{4}$ 

**16.** The amplitude of density variation corresponding to a sound wave is 1mg/m<sup>3</sup>. the maximum difference in he density between different layers of air will be

 $\bigcirc$  1 mg/m<sup>3</sup>

 $\bigcirc 2 \text{ mg/m}^3$ 

 $\bigcirc$   $\frac{1}{2}$  mg/m<sup>3</sup>

**17.** According to the principle of conservation of mechanical energy, if the kinetic energy of an object is decreased by 50%, its potential energy will be increased by 50%.

A True

B False

© May be true

none of these.

**18.** The pitch of sound is measured in hertz.

A True

B False

© May be true

none of these.

**19.** Delhi and Chicago are almost diametrically opposite on the earth. If someone travels from Chicago to Delhi, the magnitude of his displacement is (radius of Earth 6400 km)

**(A)** 6400 km

**B** 12,800 km

© 8000 km

**©** 10,800 km

### Assertion-Reason type Questions (20 - 21):

**Direction :** A statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option.

- A. Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
- B. Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A).
- C. Assertion (A) is true but reason (R) is false.
- D. Assertion (A) is false but reason (R) is true.
- **20. Assertion (A):** The relative density has no unit.

**Reason (R):** Relative density is the ratio of density of the substance to the density of water.

A

**B** B

© C

**©** D

**21. Assertion (A):** When a body is immersed in water, it loses weight.

Reason (R): The downward thrust acts on the body immersed in water.

A

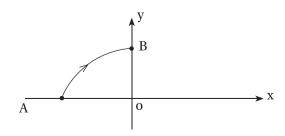
**B** B

© C

**©** D

### Case Based Questions (22-24):

A particle moves along the quadrant of a circle of radius 4m from the point A to B with a constant speed  $2 \, \text{m/s}$  as shown in figure during the interval, then



22.	Average speed of the part	icle							
	<b>A</b> zero	<b>B</b> 1 m	n/s	©	2 m/s	<b>(D)</b>	4 m/s		
23.	Displacement of particle								
	<b>A</b> zero	<b>B</b> π n	n	©	$4\sqrt{2}$ m	<b>(D)</b>	4 m		
24.	Average velocity of the pa		<i>[</i> -						
	<b>A</b> zero		$\frac{\sqrt{2}}{2}$ m/s	©	1 m/s	<b>(D)</b>	$\frac{2}{\pi}$ m/s.		
25.	g pole = g equator The stat	tement is					^		
	<b>A</b> true	<b>B</b> fals	se	©	may be true	<b>(D)</b>	none of the above		
•			<b>C</b> hemi	st	rv				
					<u>'</u>				
26.	Blood is considered as:								
	A an element			lacksquare	a compound				
	© a mixture			<b>(D)</b>	a solution				
27.	A solution contains 50 g o	of commo	on salt in 450 g of wa	ater.	The concentration of the	e solı	ution is :		
	<b>A</b> 500%	<b>B</b> 509	%	©	10%	<b>(D)</b>	80%		
28.	Which of the following is/	'are corre	ect?						
	Number of moles of solute in one litre of solution is molality.								
	Ratio of number of moles of one component to total number of moles of other component is known as mo								
	fraction.	$\mathbb{C}^{N}$			.0				
	© Number of moles of se	olute in c	one kilogram of solv	ent i	s molarity.				
	All of these are correct.								
29.	Consider the equation $2H_2 + O_2 \rightarrow 2H_2O$ . What mass of water will be produced, if 0.1 gm hydrogen is complete reacting with oxygen. [atomic mass: $H = 1$ , $O = 16$ ]?								
					0.00 ~		0.20 ~		
20	<b>ⓐ</b> 0.18 g	<b>6</b> 0.4	:5 g	•	0.90 g	U	0.36 g		
30.	Consider the reaction :								
	$Na_2CO_3 + 2HCl \rightarrow 2NaCl + CO_2 + H_2O$								
	How many number of HCl molecules will react to produce $0.22 \text{ g CO}_2$ gas? [atomic mass : C = 12, O = 16, Avogada								
	number = $6.022 \times 10^{23}$ ]		21	_	21	_	22		
	$\bullet$ 6.022 × 10 <sup>21</sup>		$11 \times 10^{21}$		$12.044 \times 10^{21}$	_	$6.022 \times 10^{22}$		
31.	How many atoms of sulph	nur are p	resent in 0.1 mole o		-	ht of	S = 32		
	<b>(A)</b> $2.56 \times 10^{23}$ atom			B	$1.28 \times 10^{23}$ atom				
	© $4.817 \times 10^{23}$ atom			<b>(D)</b>	$48.17 \times 10^{23}$ atom				
32.	The mass of 94.5 ml if a ga	ıs at S.T.P	is formed to be 0.2	231 ફ	g. Calculate its molecula	ır ma	iss.		
	<b>A</b> 52.88	<b>B</b> 82.	55	©	25.58	<b>(D)</b>	64.25		

#### Assertion-Reason Based Questions (33-35):

Read the two statements carefully and select the correct option given below.									
A:	Assertion and Reason both are correct and Reason is the correct explanation of Assertion								
B:	Assertion and Reason both are correct and Reason is not the correct explanation of Assertion								
C:	Assertion is correct but Reason is wrong								
D:	Assertion is wrong but Reason is correct								
33.	<b>Assertion (A):</b> Both $32 \mathrm{g}$ of $\mathrm{SO}_2$ and $8 \mathrm{g}$ CH <sub>4</sub> contain same number of molecules.								
	Reason (R): Equal moles of two compounds contain same number of molecules.								
	A A	<b>B</b> B	© C	<b>©</b> D					
34.	Assertion (A): 8 g oxygen molecule (atomic mass : $O = 16$ ) is equal to 0.25 mole oxygen molecule.								
<b>Reason (R):</b> Number of mole of a molecule $=\frac{\text{Given mass}}{\text{Molecular mass}}$									
	♠ A	<b>B</b> B	© C	<b>©</b> D					
35.	<b>Assertion (A):</b> <sup>4</sup> He2 is the lightest element in this world.								
	Reason (R): <sup>4</sup> He <sub>2</sub> has equal	Reason (R): <sup>4</sup> He2 has equal number of protons, electrons and neutrons.							

**36.** <sup>15</sup>X7, <sup>11</sup>X7 are two naturally occurring isotopes of an element X. What is the percentage of each isotope of 'X' if the average atomic mass is 14?

**A** 95, 5

**B** 80, 20

© 75, 25

**©** 65, 25

(D)

**37.** Calculate the total number of electrons in nitrate ion  $(NO_3^-)$ 

A) 63

**(B)** 30

© 32

© 33

**38.** Explanation of the presence of three unpaired electrons in nitrogen atom is given by:

A Pauli's principle

B Hund's rule

© Aufbau's principle

O Uncertainty principle

## Comprehension Type Question (39-42):

Except noble gases all other elements including Helium have less than 8 electrons in their outermost shell. To complete their octet they either gain or lose electrons. The new species thus formed will carry charge and are termed as ions. The positively changed ion formed by the loss of electrons(s) are called cations, whereas the negatively charged ions formed by the gain of electron are called anions. The charge on the ions is equal to the number of electrons lost or gained by the atom. Two types of ions are formed.:

- (i) Cations : When an atom loose electron(s), the number of electrons become lesser than that of proton and ion get positive charge : Na  $e^- \rightarrow Na^+$ ;  $Mg 2e^- \rightarrow Mg^{++}$
- (ii) Anions when an atom accepts electrons, number of electrons become more than that of protons and ion gets negative charge. Ex:  $F + e^- = F^-$ ;  $O + 2e^- = O^{2-}$
- **39.** An X<sup>2-</sup> contains 10 electrons and 8-neutrons, what will be its atomic mass?

**A** 8

**B** 16

© 10

(D) 18

40.	An atom A (atomic number 13) will form a stable :								
	$\triangle$ A <sup>3+</sup> ion	B	$A^{3-}$ ion	©	$A^{2+}$ ion	<b>(D)</b>	$A^{2-}$ ion		
41.	If number of protons in A	If number of protons in A is 10, the number of protons in $A^{2+}$ will be :							
	A 12	B	8	©	10	<b>(D)</b>	11		
42.	An atom of an element has 26 electrons and has a mass number 56. The nucleus of this atom contains								
	neutrons		0.0		20		50		
40			36		30	<b>(D)</b>	56		
43.	3. What are the values of the co-efficients $a$ , $b$ , $c$ , $d$ and $e$ in the following reaction?								
	$a$ KMnO <sub>4</sub> + $b$ HCl $\rightarrow c$ KC	l + d	$MnCl_2 + eCl_2 + H_2O$						
	<b>(A)</b> $a = 1, b = 14, c = 1, d =$	2, e =	= 5	B	a = 2, $b = 14$ , $c = 2$ , $d = 2$	2, e =	5		
	© $a = 1, b = 16, c = 2, d =$	= 5	<b>(D)</b>	a = 2, $b = 16$ , $c = 2$ , $d = 2$ , $e = 5$					
44.	What is the formula of Fer	ric f	errocyanide?						
		lacksquare	$Fe[Fe(CN)_5]$	©	$Fe_4[Fe(CN)_5]_3$	<b>(D)</b>	$Fe_4[Fe(CN)_6]_3$		
45.	The gas which has a mole	cula	r mass twice that of Oxyg	gen i	s : [atomic weight : C = 1	.2, O	= 16, $S = 32$ and $H = 1$		
	$\bigcirc$ CO <sub>2</sub>	₿	CO	©	$SO_2$	<b>(D)</b>	$H_2S$		
46.	19.7 g of gold was recovered	ed fr	om a smuggler. The nun	nber	of atoms of gold recover	red v	vere (Au = 197).		
	100	B	$6.02 \times 10^{23}$	©	$6.02 \times 10^{24}$	<b>(D)</b>	$6.02 \times 10^{22}$		
47.	The number of electrons in an element X is 15 and the number of neutrons is 16. Which of the following is th correct representation of the element?								
	$oldsymbol{eta}$ $^{31}{ m X}_{15}$	B	$^{31}X_{16}$	©	$^{16}X_{15}$	<b>(D)</b>	$^{15}X_{16}$		
48.	What is the mass of the oxygen required to react completely with 15 g of H <sub>2</sub> gas to form water?								
	<b>(A)</b> 140 g	B	115 g	©	107.5 g	<b>(D)</b>	120 g		
49.	is not an example of aerosol :								
	A Fog	B	Clouds	©	Mist	<b>(D)</b>	Shaving cream		
50.	$^{39}\mathrm{K}_{19}$ and $^{19}\mathrm{F}_{9}$ are the exan	ıple	of:						
	A Isotopes		Isoelectronic	©	Isotone	<b>(D)</b>	Isodiaphers		
			Mathe		atios				
	Mathematics ————————————————————————————————————								
51.	Which of the following is	a te	rminating decimal?						
		₿	$\frac{13}{52}$	©	$\frac{2}{7}$	<b>(D)</b>	5 35		
52.	The number $(3-\sqrt{3})(3+\sqrt{3})$								
	an irrational number			©	not a natural number	<b>(D)</b>	none of these		
53.	find the value of k, if x-3 is	a fa	ctor of $5x^3 - 2x^2 + x + k$						
	<b>(A)</b> 50	B	60	©	-60	<b>(D)</b>	-120		

- **54.** If  $x = \frac{1}{2 + \sqrt{3}}$ , find the value of  $2x^3 7x^2 2x + 1$ .
  - A 0

B 1

© 2

© 3

- **55.** Find the value of  $\frac{4}{(216)^{\frac{-2}{3}}} + \frac{1}{(256)^{\frac{-3}{4}}} + \frac{2}{(243)^{\frac{-1}{5}}}$ 
  - A 214

**B** 216

© 215

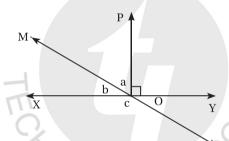
- **©** -120
- **56.** The value of  $(2-a)^3 + (2-b)^3 + (2-c)^3 3(2-a)(2-b)(2-c)$  when a+b+c=6 is
  - **(A)** −3

**B** 3

© 0

- □ -1
- **57.** The figure obtained by plotting the points (2, 3), (-2, 3), (-2, -3) and (2, -3) is a
  - A trapezium
- B rectangle
- © square
- n rhombus
- **58.** Any solution of the linear equation 2x + 0y + 9 = 0 in two variables is of the form
  - $\left(-\frac{9}{2}, m\right)$

- **(-9, 0)**
- **59.** In figure XY and MN intersect each other at point O. If  $\angle POY = 90^{\circ}$  and a: b = 2:3, then the value of c is



**(A)** 140°

**B** 126°

© 80°

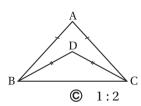
- **©** 95°
- **60.** In a triangle ABC, if  $2\angle A = 3\angle B = 6\angle C$ , then the measure of  $\angle B$  is
  - **(A)** 30°

B 75°

© 90°

(D) 60°

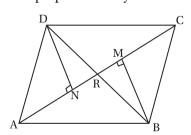
**61.** In the given figure, the ratio  $\angle ABD : \angle ACD$  is



A 1:1

**B** 2:1

- ② 2:3
- **62.** In quadrilateral ABCD, BM and DN are drawn perpendicularly to AC such that BM = DN. If BR = 8 cm, then BD is

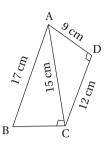


**A** 4 cm

**B** 2 cm

- © 12 cm
- **©** 16 cm

**63.** The area of quadrilateral ABCD in the below figure is



- $\triangle$  57 cm<sup>2</sup>
- **B**  $95 \, \text{cm}^2$
- ©  $102 \text{ cm}^2$
- $\bigcirc$  114 cm<sup>2</sup>
- 64. The lateral surface area of a right circular cone of height 28 cm and base radius 21 cm is
  - **A** 1155 cm<sup>2</sup>
- **B**  $1055 \text{ cm}^2$
- ©  $2110 \text{ cm}^2$
- © 2310 cm<sup>2</sup>
- 65. The number of litres of milk a hemispherical bowl of radius 10.5 cm can hold is
  - 2.47

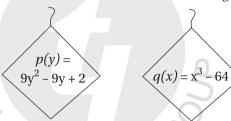
**B** 2.426

© 2.376

© 3.476

### Case Based Questions (66-68):

A school organised a mathematics exhibition in the school premises. Children of all classes made various models and games to depict the use of mathematics in daily life. To make the decoration more attractive, they made hangings related to mathematics. One of the students made two hangings with polynomials written on them.



Based on the above information, answer the following questions.

- **66.** Find the factors of polynomial q(x).
  - (x 4)  $(x^2 + 4x + 16)$
- **B**  $(x+4)(x^2+4x+16)$
- $(x-4)(x^2-4x+16)$
- $\bigcirc$   $(x+4)(x^2-4x+16)$

- **67.** Find the factors of polynomial p(y).
  - (3y + 2) (3y 1)
- **B** (3y-2)(3y-1)
- © (3y+2)(3y+1)
- $\bigcirc$  (3y-2)(3y+1)

- **68.** Find the zeroes of the polynomial  $x^2 81$ .
  - A 9

**B** - 9

© ±9

None of these

## Assertion-Reason type Questions (69–70):

Direction: A statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct option.

- a. Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
- b. Both assertion (A) and reason (R) are true and reason (R) is not the correct explanation of assertion (A).
- c. Assertion (A) is true but reason (R) is false.
- d. Assertion (A) is false but reason (R) is true.
- **69. Assertion (A):** Sum of two irrational numbers  $2 + \sqrt{3}$  and  $4 + \sqrt{3}$  is irrational number.

Reason (R): sum of two irrational numbers is always an irrational number.

A a

**B** b

© c

**©** d

**70.** Assertion (A): The rationalizing factor of  $3+2\sqrt{5}$  is  $3-2\sqrt{5}$ 

**Reason (R):** If the product of two irrational numbers is rational, then each one is called the rationalising factor of the other.

A a

**®** b

© c

**©** d

**71.** Class mark and class size of the class interval are 25 and 10 respectively then the class interval is

- $\triangle$  20 30
- **B** 30 40
- © 40 50
- **©** 50 60

**72.** Class mark of the 1st class interval is 5 and there are five classes. If the class size is 10, then the last class interval is

- $\bigcirc$  20 30
- **B** 30 40
- © 40 50
- **©** 50 60

73. The radius of a sphere is 10 cm. If its radius is increased by 1 cm, the volume of the sphere is increased by

- **A** 13.3%
- **B** 21.1%
- © 30%

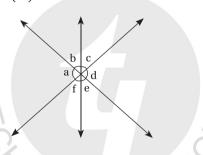
**②** 33.1%

**74.** The sides of a triangle are 35 cm, 54 cm and 61 cm respectively. The length of its longest altitude is

- $\triangle$  16 $\sqrt{5}$  cm
- **B**  $10\sqrt{5}$  cm
- ©  $24\sqrt{5}$  cm
- ② 28 cm

**75.** In figure, which of the following statements must be true?

- (i) a + b = d + c
- (ii)  $a + c + e = 180^{\circ}$
- (iii) b + f = c + e



- (i) only
- (ii) only
- © (iii) only
- (ii) and (iii) both.

## **B**iology

- **76.** What are the features of mixed cropping?
  - Seeds of two crops are mixed before sowing
  - B There is no definite pattern of sowing the seeds
  - © Product of different crops are harvested, threshed, marketed in mixed forms
  - All of the above
- 77. Which of the following species of honey bee is not an Indian species?
  - Apis dorsata
- **B** Apis florae
- © Apis cerana indica
- Apis mellifera

- **78.** Poultry farming is undertaken to raise the following:
  - (I) Egg production
- (II) Feather production
- (III) Chicken production
- (IV) Milk production

- (II) & (II)
- **B** (I) & (III)
- © (II) & (III)
- (III) & (IV)

- **79.** Which one of the following fishes is a surface feeder?
  - A Rohu
- B Mrigal
- © Common carp
- **O** Catla

- **80.** The nuclei of meristematic cells are
  - (A) small
- B large

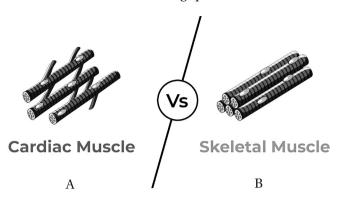
- © medium sized
- any of these

81.	1. Which one is made of dead cells?								
	Sclerenchyma	$^{f B}$	Tracheids	©	Vessels	<b>(D)</b>	All		
82.		Tissue found in the area of regular wear and tear:							
	Simple squamous epi			B	Stratified squamous ep				
	© Simple cuboidal epith	eliu	m	<b>(D)</b>	Stratified cuboidal epi	theli	um		
83.		Which type of tissue forms glands?							
	A Connective	B	Epithelial	©	Nervous	<b>(D)</b>	Muscular		
84.	Cardiac muscle fibres are								
	A branched	B	striated	©	involuntary	<b>(D)</b>	all		
85.	Which of the following is			_	_				
	A Parenchyma	B	Collenchyma	©	Sclerenchyma	<b>(D)</b>	Xylem		
86.	Aleuroplasts in a cell store	_							
	A Starch	B	Oil	©	Proteins	<b>(D)</b>	Glucose		
87.	The undefined nuclear re	_							
	A nucleolus	B	nucleoid	©	nucleic acid	<b>(D)</b>	nucleoplasm		
88.	Which of the following ac	_	- /	_					
	A Golgi body	B	Ribosome	©	Lysosome	<b>(D)</b>	All		
89.	, ,								
	<del>-</del>		nbrane in hypotonic me	diur	n				
	<ul><li>shrinkage of cytoplass</li><li>shrinkage of nucleopl</li></ul>	1							
	none	asiii							
90.	Cell wall of which one of t	hese	e is not made up of cellu	loses					
00.	Bacteria	B	Hydrilla	©	Mango tree	<b>(D)</b>	Cactus plant		
<b>-</b> 100							<b>F</b>		
	sertion - Reason Base	_		ممان	ament avalenation of A		tion		
	ssertion and Reason both ssertion and Reason both				-				
	ssertion is correct but Rea			iot ti	ie correct explanation	01110	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
91.	<b>91. Assertion:</b> Epithelium is the outer protective layer of a plant body.								
Reason: The outer protective layer of a plant body have closely packed cells.									
<b>92. Assertion:</b> Tendons connect muscles to bones.									
Reason: Tendon is a fluid connective tissue.									
<b>93.</b> Assertion: The ribosome is not an organelle.									
	Reason: It is not covered by a membrane.								
<b>94.</b> Assertion: Protoplasm is called the physical basis of life.									
0.5	Reason: Protoplasm is absent in sclerenchyma.								
95.	<b>Assertion:</b> Some bacteria a	ınd (	cyanobacteria are used a	is bio	otertilizers.				

**Reason:** They convert nitrogen of the air into nitrogenous compounds, which serve as plant nutrients.

#### ■ Case Based Questions (96-98):

Study the diagrams given below and answer the following questions:



- **96.** A and B stand for: (Choose the correct pair)
  - A is smooth muscle, B is cardiac muscle
- **B** A is skeletal muscle, B is cardiac muscle
- © A is cardiac muscle, B is smooth muscle
- (D) A is cardiac muscle, B is striated muscle
- **97.** Which one of the above are found in the walls of the stomach?
  - A Both A and B
- Neither A nor B
- © A

(D) (B)

- **98.** Which of the above do not show fatigue?
  - A Fig. A
- **B** Fig. B
- © Both (and (B)
- D Neither Onor B

#### ■ Case based Question (99-100):

Read the following passage and answer the given questions: The outer boundary of the cell is the plasma membrane. Inside it lies the cytoplasm. Various cell organelles and cell inclusions are suspended in the cytoplasm. All activities inside the cell and interaction of the cell with its environment, is possible due to these features.

- **99.** Name the smallest cell organelle
  - A Vacuole
- B Lysosome
- © Nucleus
- Ribosome

- **100.** Choose the odd one out:
  - Mitochondria
- B Plastids
- © Vacuole
- Nucleolus