

# **Monthly Progressive Test**

Class: X (G)

Subject: PCMB



Test Booklet No.: MPT05 Test Date: 2 2 0 8 2 0 2 4

Time: 180 mins Full Marks: 200

#### Important Instructions:

- 1. The Test is of 180 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 MPT0522082024.
- 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**

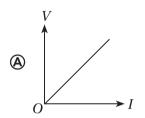
- **1.** The potential difference required across a conductor of resistance 5  $\Omega$  to pass a current of 2 A is (in volt)
  - **(A)** 10

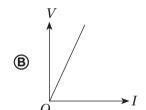
**B** 7.5

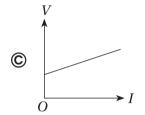
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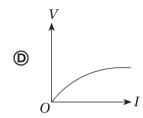
**1**2

**2.** Select the graph for non-ohmic conduction









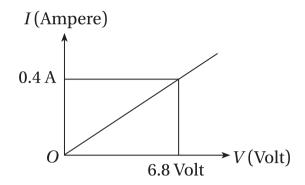
- **3.** The resistance of a wire is  $2 \Omega$ . Then the resistance across the ends of the wire if it is doubled on itself (in area)
  - $\bigcirc 0.25 \Omega$
- $\bigcirc 0.5 \Omega$
- ©  $0.75\,\Omega$
- $\bigcirc 1\Omega$
- **4.** For substance, the resistivity and resistance is practically invariant with temperature change in
  - A Constantan
- B Manganin
- © Both (A) & (B)
- none of the above
- 5. Which of the following statement does not represent Ohm's law—
  - ♠ Current = resistance × potential difference

  - © Current/potential difference = constant
  - © Potential difference = resistance × current
- **6.** A cell of 4 volt and internal resistance 0.5  $\Omega$ , supplies a current across a resistor of 1.5  $\Omega$ . Then the circuit current is (in A)
  - **(A)** 2.5 A
- **B** 1.5 A
- © 2A

- 1 A
- **7.** An electric bulb marked 40 W and 200 V, is used in a circuit of supply voltage 100 volt. Now its power is
  - **(A)** 100 W
- **B** 40 W
- © 20 W
- **10 W**
- **8.** How many electrons should pass through a conductor in 1 s to constitute 1 A current is
  - $\triangle$  6.25 × 10<sup>18</sup>
- **B**  $6.25 \times 10^{17}$
- ©  $10^{18}$

①  $3 \times 10^{20}$ 

**9.** From the above mentioned graph, the resistance of the circuit is



- **A** 17 ohm
- **®** 15 ohm
- © 13 ohm
- **©** 9 ohm

**10.** SI unit of resistivity is

- **(A)** ohm⋅m
- (B) ohm/m
- © ohm
- **1**/ohm

11. All the electrical appliances should be given earth connection to avoid

- A Electric shock
- B Hazard
- © Pollution
- Noise

**12**. Which of the following represents the electrical power in a circuit?

- $\triangle V^2/R$
- $\bigcirc V^2R$

- $\bigcirc VR^2$
- $\bigcirc$  VR

**13.** A car headlight bulb working on a 12 volt car battery draws a current of 0.5 A, the resistance of light bulb is

- A 1 ohm
- **B** 24 ohm
- © 6 ohm
- **18 ohm**

14. All the electrical appliances are connected in parallel across the

A Live wire and earth wire

- B Earth wire and neutral wire
- © Live wire and neutral wire
- None of the above is correct

**15.** A simple electric circuit has a 12 volt battery and a resistor of 30 ohm. The current in the circuit is

**(A)** 1 A

- **B** 0.6 A
- © 0.2 A
- ① 0.4 A

**16.** For a convex lens of focal length 20 cm, if the image is formed at 20 cm, then u =

- (A) infinity
- **B** 10 cm
- © 20 cm
- **②** 40 cm

**17.** If  $V_A = 10$  volt and  $V_B = 6$  volt, then  $V_A - V_B =$ 

- A 2 volt
- **B** 4 volt
- © 3 volt
- 1 volt

#### Assertion Reason Based Questions (18 - 19)

**Directions:** In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:

- A. If both Assertion and Reason are true and Reason is the correct explanation of the Assertion.
- B. If both Assertion and Reason are true but Reason is not a correct explanation of the Assertion.
- C. If Assertion is true but the Reason is false.
- D. If Assertion is false but Reason is true.
- 18. Assertion: A concave lens is also called a diverging lens.

**Reason:** A parallel beam of light incident on a concave lens diverges on the other side.

(A) A

**B** B

 $\bigcirc$  C

(D) D

**19**. **Assertion:** The power of a convex lens is positive.

**Reason:** The power of a concave lens is negative.

 $\triangle$  A

**(B)** B

© C

(D) D

20. If potential difference across a resistor 2 ohm is 10 volt, then current is

**(A)** 5A

**(B)** 3A

© 2A

**©** 6A

#### Case Study Based Question (21-25):

Two resistances of  $15\Omega$  and  $4\Omega$  in series are connected to a cell of EMF 2V and internal resistance  $1\Omega$ .

21. The current drawn from cell is

(A) 1A

**®** 0.2A

© 0.1A

**1**0A

**22.** Voltage across  $15\Omega$  is

**(A)** 1.5V

**B** 1.1V

© 2V

1V

**23.** Voltage across  $4\Omega$  is

**(A)** 1.2V

**B** 4V

© 0.4V

**0** 0.04V

24. Terminal voltage is

**(A)** 1.2V

**B** 1.9V

© 1.1V

**1.5**V

**25.** Lost voltage is

**♠** 0.2V

**®** 0.1V

© 0.4V

**0**.3V

# **C**hemistry

26.	Which of the followi	ng element cannot for	rm r	nore than one oxid	de ?		
	A Carbon	B Boron	©	Sulpher	<b>(</b>	Iron	
27.	1. In $N_2$ molecule, lone pair present = X and bonds present = Y. The v					ue of $(X + Y)$ will be	
	<b>A</b> 7	<b>B</b> 4	©	6	<b>(D)</b>	No option correct	
28.	Among the metals,	etricity is —					
	A Hg	B Al	©	Cu	<b>(D)</b>	Fe	
29.	Which non-metal is	used as a food preserv	vativ	ve?			
	$\bigcirc$ $N_2$	$lacksquare$ $\operatorname{Cl}_2$	©	$H_2$	<b>(D)</b>	$\mathrm{O}_2$	
30.	Which non-metal is solid?						
	Sodium	B Iodine	©	Bromine	<b>(D)</b>	Oxygen	
31.	Which compound contains triple bond?						
	$\bigcirc$ C <sub>2</sub> H <sub>4</sub>		B	$C_2H_2$			
	© C <sub>2</sub> H <sub>6</sub>	-	<b>(D)</b>	No option is corre	ect		
32.	Among the given me	etals, which reacts with	h wa	ater most vigorous	ly?		
	A Na	<b>B</b> Co	©	Fe	<b>(D)</b>	Ag	
<b>33.</b> Corrosion of iron is an example of							
	A Reduction reaction	on //VD/P	B	Oxidation reaction			
	© Substitution reaction		<b>(D)</b>	Decomposition reaction			
34.	Among the given molecules, which is a po		olar (	olar covalent molecule ?			
	$\bigcirc$ CO <sub>2</sub>	® NH <sub>3</sub>	©	$\mathrm{CH}_4$	<b>(</b>	$CCl_4$	
35.	In which of the followith steam only?	wing option, all metals	s do	not react with hot	or c	old water but reacts	
	🖲 Na, Ca, K	<b>❸</b> Fe, Mg, Zn	©	Fe, Al, Zn	<b>(D)</b>	Fe, Al, Ca	
36.	When calcium come	es contact with water t	then	it starts floating b	eca	use	
	Density of the me	etal starts decreasing					
	The metal become	nes lighter					
	© The produced gas sticks to the surface of the metal						
	© Ca(OH) <sub>2</sub> is forme	ed					

37. In which of the following option both the elements have same number of electrons in their outermost shells?
A Nitrogen and phosphorus
Calcium and carbon
Chlorine and sodium
Nitrogen and boron

#### Question number 38 to 40 are ASSERTION-REASON TYPE. Select the correct option

**OPTION A:** Assertion and reason both are correct and reason is the correct explanation of assertion

**OPTION B:** Assertion and reason both are correct and reason is not the correct explanation of assertion

**OPTION C:** Assertion is correct but reason is wrong

**OPTION D:** Assertion is wrong but reason is correct

- **38. Assertion :** For household uses, copper wire is coated by an insulating substance **Reason :** Insulating substance increases the ductility of the copper wire
- **39. Assertion:** Magnesium cannot be burnt in air spontaneously

Reason: Magnesium is a strong metal

**40. Assertion :** Many metals exist in the earth's crust as oxides

Reason: Oxygen is a very reactive element and can combine with the metals very easily

- **41.** Which data indicates the weakest acid?
  - **(A)**  $p^{H} = 5.4$
- **B**  $p^{H} = 4.23$
- ©  $p^{H} = 3.89$
- $p^{H} = 2.67$

- **42.** Electrolysis is an example of
  - A Displacement reaction

B Double displacement reaction

© Decomposition reaction

- Physical change
- **43.** Which type of decomposition causes the formation of CaO and CO<sub>2</sub> from CaCO<sub>3</sub>?
  - Electrolytic decomposition
- B Thermal decomposition
- © Photochemical decomposition
- Aqueous decomposition

- **44.** Colour of NaCl solution is
  - (A) yellow
- B colourless
- © red

- green
- **45.** When dilute hydrochloric acid is added to granulated zinc placed in a test tube, the observation made is
  - (A) the surface of the metal turns shining
  - (B) the reaction mixture turns milky

		[6]				
	© odour of chlorine	e is observed				
	(1) a colourless and	odourless gas evolves	with bubbles			
46.	At room temperatur	e, carbon dioxide is				
	A acidic oxide	B basic oxide	© Solid	<b>(D)</b>	amphoteric oxide	
47.	Which of the follow	ing compound is not o	beying octate rule?			
	♠ CH <sub>4</sub>	$oldsymbol{\mathbb{B}} \ \mathrm{O}_2$	© CO <sub>2</sub>	<b>(D)</b>	$PCl_5$	
48.	Which ore needs cal	lcination ?				
	A Carbonate	Chloride	© Sulphide	<b>(</b>	Bromide	
49.	Ductility is related w	vith which of the follow	wing point			
	bells can be made by metals					
	® wires can be made by metals					
	© metallic electrod	es are used in case of	electrolysis			
	alloys can be made	de by metals				
50.	Diamond and graph	nite are the allotops of				
	Sulpher -	B Nitrogen	© Carbon	<b>(</b>	Iodine	
	7					
		Mathe	ematics			
51.	In $\triangle ABC$ , $\angle B = 90^{\circ}$ . I	fAB = 14 cm and AC =	= 50 cm, then tan A equ	ıals		
	24	24 /\D\P	7		<u>25</u>	
		® <del>7</del>	© 24	<b>(D)</b>	24	
52.	If $\sin \theta = \frac{12}{13}$ , then the	e value of the $\frac{2\cos\theta}{\sin\theta + \tan\theta}$	$\frac{-3\tan\theta}{\sin\theta\sin\theta}$ is			
			© $\frac{259}{102}$	<b>(</b>	259 65	
53.	sin 30° + cos 60° ea	uals				

(A)  $\frac{1+\sqrt{3}}{2}$ 

© 1

None of these

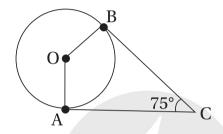
The angle of elevation of the top of a tower at a distance of 500 metres from its foot is  $30^\circ$ . The height of the tower is

(a)  $\frac{500\sqrt{3}}{3}$  m (b)  $\frac{500(\sqrt{3}-1)}{3}$  m (c)  $\frac{500(\sqrt{3}+1)}{3}$  m

**©** 500 m

- **55.** The tops of two poles of height 20 m and 14 m are connected by a wire. If the wire makes an angle 30° with the horizontal, then the length of the wire is
  - **(A)** 12 m
- **B** 10 m
- © 8 m

- **1**4 m
- **56.** A point P is 10 cm from the centre of a circle. The length of the tangent drawn from P to the circle is 8 cm. The radius of the circle is equal to
  - **A** 4 cm
- **B** 5 cm
- © 6 cm
- None of these
- **57.** In figure, O is the centre of the circle, CA is tangent at A and CB is tangent at B drawn to the circle. if  $\angle$ ACB = 75°, then  $\angle$ AOB =



**A** 75°

**B** 85°

© 95°

(D) 105°

#### Assertion Reason based Questions (58-59):

**Directions:** In this question, a statement of Assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choice.

- (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 but 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.
- **58.** Assertion: If A is acute angle and  $\tan A = \frac{12}{5}$ , then  $\sec A = \frac{13}{5}$

**Reason:**  $\sec A = \sqrt{1 + \tan^2 A}$ 

(A) a

**B** b

© c

**©** d

**59. Assertion:** In a right triangle  $\triangle PQR$ ,  $\angle Q = 90^{\circ}$ 

and  $\cos P = \cos R \implies \angle P = \angle R$ 

Reason: In isosceles triangle, base angles are equal

(A) a

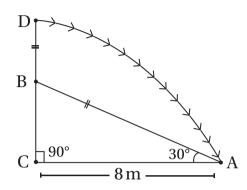
**B** b

© c

**©** d

#### Case Study based Questions (60-62):

In Ankit's garden, a palm tree was broken by wind in such a way that its top touched the ground at a distance of 8m from the root. The fallen part of the tree made an angle of 30° with the ground. Based on this information answer the following questions.



60. Find the height at which the tree was broken?

- $\triangle 8\sqrt{3} \text{ m}$
- ©  $2\frac{2}{3}$  m
- **©** 8 m

**61.** Calculate the length of the broken part?

- $\triangle 16\sqrt{3} \text{ m}$
- $\mathbb{B} \frac{16\sqrt{3}}{3} \, \mathrm{m}$
- ©  $4\frac{2}{3}$  m
- **©** 16 m

**62.** Calculate the height of the tree.

- $\triangle 8\sqrt{3} \text{ m}$
- **B** 8 m

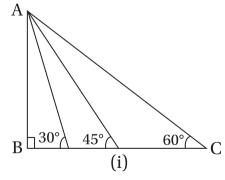
- © 16 m

**63.** In a right triangle, perpendicular is 1 and hypotenuse is 2. Find the value of  $\frac{2\tan\theta}{1-\tan^2\theta}$ 

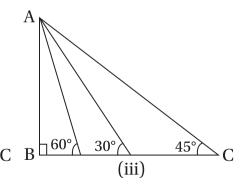
 $\bigcirc \frac{1}{2}$ 

 $\bigcirc$   $\frac{1}{\sqrt{2}}$ 

64.



В 760° 45°



Choose the correct figure,

(i)

**B** (ii)

© (iii)

(ii)

none of these

65.	A circle can have	parallel tangents to	a given secant		
	One	<b>®</b> Two	© Three	<b>©</b> Four	
66.	What is the $n^{\text{th}}$ term	in the arithmetic serie	es given below?		
	$3 + 7 + 11 + 15 + 19 + \dots$				
	<b>(A)</b> 4n	<b>B</b> 3 + 4n	© 2 <i>n</i> + 1	<b>D</b> 4 <i>n</i> - 1	
67.	The distance between	en points A(1, 3) and B	S(x, 7) is 5. The value of	of $x > 0$ is	
	<b>A</b> 4	<b>B</b> 2	© 1	<b>©</b> 3	
68.	If $\alpha$ , $\beta$ be the roots of	f equation $4x^2 - 7x + 3$	= 0, then the value of	$\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$ will be	
		(B) $\frac{23}{8}$	© $\frac{24}{25}$	$\bigcirc$ $\frac{24}{23}$	
69.	If $\frac{x}{a} = \frac{y}{b} & ax + by =$				
	<b>(A)</b> $x = a, y = b$		© $x = a/2, y = b/2$	① $x = b/2, y = a/2$	
70.	The traffic lights at three different signals change after 48 seconds, 72 seconds and 108 seconds. If they change at 7 a.m. simultaneously. How many times they will change between 7 a.m. to 7.30 a.m. simultaneously?				
	<b>(A)</b> 3	<b>®</b> 4	© 5	<b>©</b> 2	
71.	Find the value of $\frac{\tan x}{1-x}$	$\frac{n A + \tan B}{\tan A \tan B}, \text{ if A} = 60^{\circ} a$	and B = 30°		
	(A) undefined	$\mathbb{B}$ $\sqrt{3}$	© $-\frac{1}{\sqrt{3}}$		
72.	The value of $\frac{\sin \theta}{1 + \cos \theta}$	$\frac{1+\cos\theta}{\sin\theta}$ is			
	$\mathbf{\hat{\Theta}} \ 2\sin\theta$	$\blacksquare$ 2 cosec $\theta$	$\bigcirc$ $2 \tan \theta$	$\bigcirc$ 2 cot $\theta$	
73.	If a pole 6m high caelevation.	asts a shadow $2\sqrt{3}$ m l	ong on the ground, the	hen calculate the sun's	

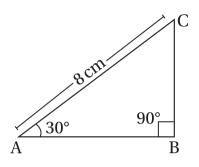
© 30°

**B** 45°

**A** 60°

**©** 90°

**74.** Calculate the ar( $\triangle$ ABC).



- (A)  $16\sqrt{3} \text{ cm}^2$
- $\bigcirc$  16 cm<sup>2</sup>
- ©  $8\sqrt{3}$  cm<sup>2</sup>
- ©  $6\sqrt{3} \text{ cm}^2$
- **75.** A quadrilateral ABCD is drawn to circumscribe a circle. If AB + CD = 14.5 cm, then AD + BC = ?
  - **A** 29 cm
- **®** 7.25 cm
- © 14.5 cm
- none of these

# **Biology**

- 76. Reproduction through leaves is shown by
  - A Potato
- B Rose
- © Bryophyllum

- 77. The endosperm of angiosperms is
  - A Haploid
- B Diploid
- © Triploid
- Polyploid

- **78.** Seed is a modification of
  - Ovary
- B Ovule
- © Thalamus
- All of these
- **79.** The human embryo gets nutrition from the mother's blood with the help of a special organ called
  - A Zygote
- B Ovary
- © Oviduct
- Placenta

- **80.** Which one of the following is not a true fruit?
  - A Mango
- B Watermelon
- © Apple
- Guava

- **81.** Regeneration is found in
  - A Yeast
- B Leech
- © Hydra
- Ascaris
- **82.** In some societies, women are solely held responsible for giving birth to female baby. But scientific discoveries have proved that men are responsible for the birth of foetus of either sex. With this information, which of the following fertilisation would be the most appropriate reason for the birth of a female child?
  - (A) Ovum with X chromosome and sperm with Y chromosome

- **®** Ovum with X chromosome and sperm with X chromosome
- © None of the above
- D Both and can cause birth of a female child

#### Assertion-Reason type Questions (83-84):

**Directions:** Read the following questions and choose any one of the following four responses.

- A. Both Assertion and Reason are true and Reason is the correct explanation of the Assertion.
- B. Both Assertion and Reason are true but Reason is not the correct explanation of the Assertion.
- C. Assertion is true but Reason is false.
- D. Assertion is false but Reason is true.
- **83. Assertion:** Offsprings produced by sexual reproduction show variation.

**Reason:** Each offspring produced by sexual reproduction inherits all the genes from one parent.

**(A)** A

**B** B

© C

- **(D)** D
- **84**. **Assertion:** Scrotum occurs outside the abdominal cavity.

**Reason:** It helps to store sperms which require a lower temperature than the body temperature to mature.

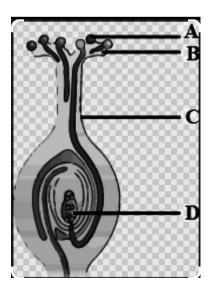
A

**B** B

© (

**(D)** D

#### Case based Question (85-89):



Study the diagram given above and answer the following questions:

85.	The part labelled C	is the			
	A Pollen grain	B Pollen tube	©	Ovary	Style
86.	During pollination, pollen grains land on the				
	Stigma	Anther	©	Style	Petals
87.	Where does fertilisa	tion occur?			
	Ovary	Style	©	Stigma	Pollen tube
88.	The given figure rep	resents:			
	A Transfer of polle	n from anther to stigm	na		
	B Fertilisation of the	ne male and female ga	met	es	
	© Germination of pollen tube to reach the ovule				
	Transformation	of the ovule to seed			
89.	What happens to th	e part labelled B after	fert	ilisation?	
	♠ Falls off		B	Transforms into a	a fruit
	© Transforms into	the stalk of the fruit	<b>(D)</b>	Remains attached	d to the seed
90.		ns as the blue print of l	ife.	20	d to the seed
90.		ns as the blue print of l	ife.	Remains attached	d to the seed  RNA
	function	ns as the blue print of l	ife.	20	_
	function	as as the blue print of l B Fats	ife.	20	© RNA
	function  © Proteins  Egestion is—	s as the blue print of l  B Fats genous wastes	ife. ©	DNA	© RNA wastes
91.	function  A Proteins  Egestion is—  Removal of nitro  Removal of undig	s as the blue print of l  B Fats genous wastes	ife. ©  B  D	DNA  Removal of toxic  Removal of water	© RNA wastes
91.	function  A Proteins  Egestion is—  Removal of nitro  Removal of undig	B Fats genous wastes gested food	ife. ©  B  D	DNA  Removal of toxic  Removal of water	© RNA wastes
91.	function  A Proteins  Egestion is— A Removal of nitro C Removal of undig Which of the follow  A Stored food	s as the blue print of l  B Fats  genous wastes gested food ing is the respiratory s	ife. ©  B  D  subs	DNA  Removal of toxic  Removal of water  trate—  Glucose	© RNA wastes  © Proteins
91. 92.	function  A Proteins  Egestion is— A Removal of nitro C Removal of undig Which of the follow  A Stored food	B Fats genous wastes gested food ing is the respiratory s B Fats	ife. ©  B  D  subs	DNA  Removal of toxic  Removal of water  trate—  Glucose	© RNA wastes  © Proteins
91. 92.	function  A Proteins  Egestion is— A Removal of nitro C Removal of undig Which of the follow A Stored food The exchange of gas	B Fats  B Fats  genous wastes gested food ing is the respiratory s B Fats ses between the extern	ife. ©  ®  ©  subs  cubs anal a	DNA  Removal of toxic of Removal of water trate— Glucose ir and the blood of	© RNA wastes  © Proteins ccurs in the—
91. 92. 93.	function  A Proteins Egestion is— A Removal of nitro C Removal of undig Which of the follow A Stored food The exchange of gas Bronchus	B Fats  B Fats  genous wastes gested food ing is the respiratory s B Fats ses between the extern	ife. ©  ®  ©  subs  cubs anal a	DNA  Removal of toxic of Removal of water trate— Glucose ir and the blood of	© RNA wastes  © Proteins ccurs in the—

#### Assertion Reason Based Questions (95-96):

**Directions:** In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:

- A. Both Assertion and Reason are true and Reason is the correct explanation of the Assertion.
- B. Both Assertion and Reason are true but Reason is not the correct explanation of the Assertion.
- C. Assertion is true but Reason is false.
- D. Assertion is false but Reason is true.
- **95. (A):** Artificial kidney is a device to remove nitrogenous waste products from blood through dialysis.
  - (R): Reabsorption does not occur in artificial kidney.

A

**B** B

© C

**(D)** D

- **96. (A):** Errors during DNA copying leads to variations.
  - (R): Organisms showing asexual reproduction show maximum variation.

A A

**B** B

 $\odot$  C

**(D)** D

#### Case based Question (97-99):

Sexual reproduction is seen in flowering plants, known as angiosperms. The reproductive parts are located in the flower. The androecium bears anthers which produce pollen grains. The gynoecium contains ovules. Pollen grains are transferred from the androecium to the gynoecium. This step is called pollination and is followed by fertilisation.

**97.** From the list given below, select the non reproductive part(s) of a flower:

I. Sepals

II. Petals

III. Stamens

IV. Carpels

(A) I & II

® III&IV

© All

Only I

**98.** Ovary, style and stigma are parts of —

A Calyx

B Corolla

© Androecium

Gynoecium

**99.** In tobacco plant, the male gamete has 24 chromosomes. What will be the number of chromosomes in the zygote?

**A** 12

**B** 24

© 48

**①** 72

**100.** Vasectomy is a \_\_\_\_\_ method of contraception.

Surgical

Mechanical

© Chemical

① IUD

## **Space For Rough Works**