



MSAT – 2026

(MAHARISHI SCHOLARSHIP CUM ADMISSION TEST)

For Students presently in Class – 10 (MEDICAL)
(going to class – 11 in 2027)

SAMPLE PAPER

Disclaimer: This is a sample paper provided for practice purposes only. The level of difficulty, type of questions, and total number of questions may vary in the actual examination.

General Instructions:

Time: 180 minutes

Maximum Marks: 210

- Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.
- Do not start filling the OMR sheet before the announcement from the invigilator.
- Do not keep the OMR sheet exposed to others.
- Shade the correct answers only in the OMR sheet given. Do not write or mark answers or symbols (Like ✓, •, X ...) anywhere in the questions paper.
- You are allowed to carry this Question Paper Booklet after the exam.
- Kindly ensure to submit your OMR answer sheet to the invigilator after the Exam.
- Use only blue or black ball point Pen or Pencil to fill all the information on the OMR sheet and for giving responses.
- Students need to write their registration number in the space provided for the same on the OMR.
- Any usage of Electronic gadgets like Mobile Phones, Calculator, Digital Watch etc....is strictly prohibited.
- Multiple markings will be treated as invalid response.
- Do not fold the OMR sheet.
- This Question Paper booklet contains **4 Sections**.

Section	Subject	Question No.	Marking Scheme for each questions	
			Correct Answer	Wrong Answer
I	MENTAL ABILITY	1 to 30	+1	0
II	BIOLOGY	1 to 30	+3	- 1
III	PHYSICS	1 to 15	+3	- 1
IV	CHEMISTRY	1 to 15	+3	- 1

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Name of the Candidate : _____

Registration Number : _____

MAT**Section – I****Single Answer Questions**

1. Starting from a Point X, Ramu walked 20 m towards South. He turned left and walked 30 m. He then turned left and walked 20 m. He again turned left and walked 40 m and reached a point Y. How far and in which direction is the point Y from the point X.
(A) 20 m west (B) 10 m East (C) 10 m North (D) 10 m West
2. Going 50m to the south of her house, Latha turns left and goes another 20m. Then, turning to the North, she goes 30m and then starts walking to her house. In which direction is she walking now?
(A) North-west (B) North (C) South-East (D) East
3. Which of the following diagrams indicates the best relation between Sweets, Rasagulla and Apple?
(A)  (B) 
(C)  (D) 
4. Which of the following diagrams indicates the best relation between Mammal, Cow and Bat?
(A)  (B) 
(C)  (D) 
5. Find the appropriate word that fit in the place of question mark, Paw : Cat : : Hoof : ?
(A) Horse (B) Lion (C) Lamb (D) Elephant
6. Find the appropriate word that fit in the place of question mark, Gun : Bullet : : Chimney : ?
(A) Ground (B) House (C) Roof (D) Smoke
7. Choose the option which does not belong with the others.
(A) Cornea (B) Retina (C) Pupil (D) Vision
8. Choose the option which does not belong with the others.
(A) Core (B) Seeds (C) Pulp (D) Slice
9. In a queue of children, Ajay is fifth from the left and Sunil is sixth from the right. When they Inter change their places among themselves, Ajay becomes thirteenth from the left. Then, what will be Sunil's position from the right?
(A) 8th (B) 14th (C) 15th (D) 16th
10. Ravi is 7 ranks ahead of Sumit in a class of 39. If Sumit's rank is seventeenth from the last, what is Ravi's rank from the start ?
(A) 14 (B) 15 (C) 16 (D) 17

11. Given below five figures marked (1), (2), (3), (4) and (5), four are similar in a certain manner. However, one figure is not like the other four. Choose the figure which is different from the rest.



- (1) (2) (3) (4) (5)
 (A) 1 (B) 2 (C) 3 (D) None of the above
12. If in a certain language, SHIFT is coded as RFFBO, which word would be coded as LKUMB?
 (A) MLVNC (B) KJTLA (C) MJVLC (D) MMXQG
13. In a certain code, PAPER is written as SCTGW. How is MOTHER written in that code?
 (A) ORVLGW (B) PQVJGT (C) PQXJJT (D) PQXKJV
14. In a certain code FLOWER is coded as 36 and SUNFLOWER is coded as 81, then how to code FOLLOWS?
 (A) 42 (B) 49 (C) 63 (D) 36

Directions (Q.No.15 – 17) Read following information carefully and answer these questions:

- i. 'M % N' means M is the husband of N.
 iii. 'M @ N' means M is the mother of N.

- ii. 'M \$ N' means M is the daughter of N.

15. If 'A @ D @ F %N' is given, which is not correct given statement?
 (A) F is the son of D (B) D is mother-in-law of N
 (C) N is the daughter of D (D) F is the husband of N
16. Which is exactly correct 'A is mother-in-law of C'?
 (A) D % A @ M %C (B) A @ M @ C
 (C) M %C \$ A (D) None of these
17. In which of the following meaning 'P is the son of Z'?
 (A) Z % Y @ P (B) Z @ P %Y (C) Z @ P (D) None of these
18. Pointing to a boy, Deepa said "He is the son of my grandfather's only son". How is boy related to Deepa?
 (A) Brother (B) Cousin (C) Sister (D) Data inadequate
19. Find the next number 6, 20, 56, 176, _?
 (A) 416 (B) 525 (C) 256 (D) None of the above
20. Find the missing number in the series 625, 1, 1296, 0, _, 1, 4096, 16?
 (A) 42 (B) 49 (C) 2401 (D) 75
21. Find the missing number in the series 0, 5, 18, 43, 84, 145, ?
 (A) 195 (B) 225 (C) 230 (D) 258

Direction (Q.No.22 – 24): A cube is painted with different colour (Red, Yellow, Green, Blue, Orange, and Violet) on each side. When Orange is on the left, Yellow is facing you and Green is at the bottom. When Violet is on the top, Blue is on the right and Red is facing you. Blue and Orange are opposite.

22. When Orange is on the top, Violet is on the left, then which colour is facing you?
 (A) Yellow (B) Blue (C) Green (D) Cannot be determined

23. Which colour is opposite of Violet?

- (A) Red (B) Yellow (C) Green (D) Cannot be determined

24. When Green is on the top and Blue is on the right then which colour is at the bottom?

- (A) Orange (B) Red (C) Yellow (D) Violet

Direction (Q.No.25 – 27) A committee to monitor the effects of new policies on AIDS is to be formed from 3 Psychologists (Priya, Prem, Poonam), 3 Physicians (Mohit, Mauli, Megha), 2 Social Workers (Sonu, Shikha), and 3 Economists (Elesh, Esha, Emy). The committee must include exactly 2 Psychologists, 2 Physicians, 1 Social Worker, and 1 Economist. The individuals who make up the committee or group can vary from one meeting to the next. Prem cannot meet in the second half of any month. Furthermore, Megha cannot be paired with Sonu because they do not get along, and Poonam cannot be on any committee in which Sonu is a member. Mauli cannot meet on Wednesdays.

25. How many committees can be formed if Sonu is a member?

- (A) 2 (B) 3 (C) 9 (D) 10

26. How many committees that include Elesh and Shikha and that will meet on Tuesday, April 11, can be formed?

- (A) 3 (B) 9 (C) 12 (D) 18

27. How many groups can be formed that include Priya, Poonam, and Shikha, and that will meet on Wednesday, January 8?

- (A) 3 (B) 6 (C) 9 (D) 12

Direction (Q.No.28 – 30) In each question given below are Statements followed by conclusions numbered. You have to take the given statements to be true even if they seem to be at variance from commonly known facts and decide which of the given conclusions logically follows from the given Statements, disregarding commonly known facts.

28. **Statement:** I. Some pastries are toffees
II. All toffees are chocolates

Conclusions: I. Some chocolates are toffees
II. Some toffees are not pastries

- (A) If only conclusion I follows (B) If only conclusion II follows
(C) If neither I nor II follows (D) If both I and II follow

29. **Statement:** I. All tigers are ships
II. Some ships are cupboards

Conclusions: I. Some ships are tigers
II. Some cupboards are not ships

- (A) If only conclusion I follows (B) If only conclusion II follows
(C) If neither I nor II follows (D) If both I and II follow

30. **Statement:** I. All flowers are stems
II. All stems are roots

Conclusions: I. Some roots are not flowers
II. All stems are flowers

- (A) If only conclusion I follows (B) If only conclusion II follows
(C) If neither I nor II follows (D) If both I and II follow

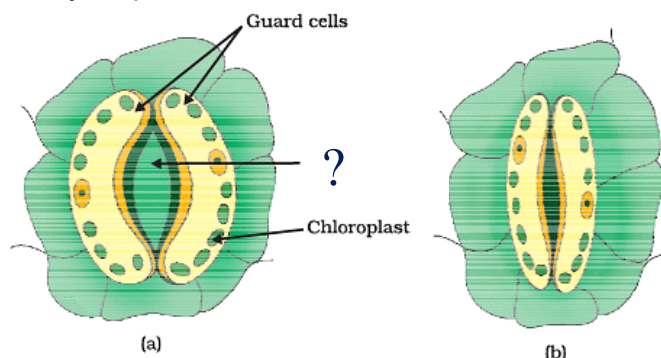
BIOLOGY**Section – II****Single Answer Questions**

- Organisms that prepare their own food material using simple inorganic sources like carbon dioxide and water with the help of sunlight and certain pigments like chlorophyll are referred to as _____.
(A) Autotrophs (B) Heterotrophs (C) Saprotrophs (D) None of these
- Assertion:** Bile is essential for digestion of fats.
Reason: Bile juice is acidic in nature
(A) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
(B) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
(C) Assertion is true but Reason is false.
(D) Assertion is false but Reason is true.
- Amoeba takes in food using temporary finger like extensions of the cell surface called _____ which fuse over the food particle forming a food-vacuole
(A) Pseudopodia (B) Cilia (C) Flagella (D) None of these
- Pea plant can climb up onto fences or support with the help of _____
(A) Leaves (B) Stipules (C) Tendrils (D) Roots
- When a few drops of iodine solution are added to a bowl of cooked rice porridge, the solution turns blue-black in colour. This indicates that rice porridge contains:
(A) lipids (B) proteins (C) starch (D) oil
- Match the following columns and choose the correct answer from the options given below

COLUMN – I		COLUMN – II	
A	Aerobic Respiration	i	Lactic acid+Energy
B	Anaerobic Respiration by Yeast	ii	Three Carbon molecule
C	Anaerobic Respiration by muscles	iii	Ethanol+CO ₂ +Energy
D	Pyruvate	iv	CO ₂ +H ₂ O+Energy

- (A) a-iv, b-i, c-ii, d-iii (B) a-iv, b-iii, c-i, d-ii (C) a-i, b-ii, c-iii, d-iv (D) a-iii, b-i, c-iv, d-ii
- Roots of plants generally tend to be _____.
(A) positively geotropic (B) negatively geotropic
(C) positively phototropic (D) None of these
 - In amoeba, digestion of food takes place in the _____.
(A) nucleus (B) mitochondria (C) nucleus (D) food vacuole
 - Name the plant hormone that actively promotes cell division
(A) Auxin (B) Gibberellin (C) Cytokinin (D) Absciscic acid
 - Blood pressure can be measured with an instrument called _____.
(A) Sphygmomanometer (B) Barometer (C) Spirometer (D) Auxanometer
 - The directional growth movement of pollen tubes towards ovules is referred to as _____.
(A) Phototropism (B) Chemotropism (C) Thigmotropism (D) Hydrotropism

12. The inner lining of the small intestine has numerous finger-like projections called _____ which increases the surface area for absorption.
 (A) Villi (B) Rugae (C) Cilia (D) None of these
13. Identify the organisms with a four chambered heart
 (A) Crow (B) Crocodile (C) Shark (D) Both A & B
14. In humans, the fluid medium in which the blood cells are suspended is referred to as _____
 (A) Hemolymph (B) Lymph (C) Plasma (D) Serum
15. Identify the part marked with “?”



- (A) Subsidiary cell (B) Stomatal pore (C) Chlorophyll (D) Xanthophyll
16. The mode of nutrition that is found in Cuscuta is _____
 (A) Parasitic nutrition (B) Holozoic nutrition
 (C) Autotrophic nutrition (D) Saprophytic nutrition
17. Match the following columns and choose the correct answer from the options given below

COLUMN – I		COLUMN – II	
A	Indigestion	i	Stomach contents are ejected through mouth
B	Constipation	ii	passing out loose watery stools
C	Diarrhoea	iii	Faeces retained in the rectum due to irregular bowel movement
D	Vomiting	iv	Pain or discomfort due to improperly digested food

- (A) a-iv, b-i, c-ii, d-iii (B) a-iv, b-iii, c-i, d-ii (C) a-i, b-ii, c-iii, d-iv (D) a-iv, b-iii, c-ii, d-i
18. Read the following statements and choose the correct answer from the options given below
 Statement I: Gibberellins cause wilting of Leaves.
 Statement II: Abscissic acid help in the growth of the stem.
 (A) Statement I is correct and Statement II is incorrect.
 (B) Both Statement I and Statement II are incorrect
 (C) Both Statement I and Statement II are correct
 (D) Statement I is incorrect and Statement II is correct.
19. In the case of aerobic respiration the breakdown of pyruvate to give carbon di-oxide, water and energy takes place in _____
 (A) cytoplasm (B) mitochondria (C) chloroplast (D) nucleus

20. Read the following Statements and choose the correct answer from the options given below

Statement I: Herbivores eating grass have a longer small intestine to allow the Plant based components like cellulose to be digested.

Statement II: Carnivores have a shorter small intestine because meat is easier to digest.

- (A) Statement I is correct and Statement II is incorrect.
 (B) Both Statement I and Statement II are incorrect
 (C) Both Statement I and Statement II are correct
 (D) Statement I is incorrect and Statement II is correct.

21. Match the following columns and choose the correct answer from the options given below

COLUMN – I		COLUMN – II	
A	Lymph	i	Carries oxygenated blood
B	Pulmonary vein	ii	Receives deoxygenated blood
C	Platelets	iii	Tissue fluid
D	Right atrium	iv	Clotting of blood

- (A) a-iv, b-i, c-ii, d-iii
 (C) a-i, b-ii, c-iii, d-iv

- (B) a-iv, b-iii, c-i, d-ii
 (D) a-iii, b-i, c-iv, d-ii

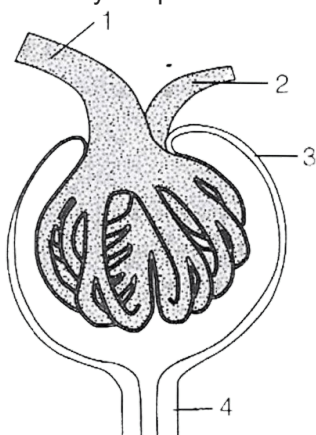
22. Dental caries or tooth decay causes damage to _____

- (A) Enamel (B) Dentine (C) Both A & B (D) None of these

23. Absciscic acid is a plant hormone that helps _____

- (A) to promote cell division.
 (C) to promote growth of stem.
 (B) to inhibit growth.
 (D) to increase the length of cells.

24. Identify the part labelled as “3” from the following diagram



- (A) Afferent arteriole
 (C) Glomerulus

- (B) Efferent arteriole
 (D) Bowman's capsule

25. The break-down of glucose to pyruvate takes place in which part of the cell

- (A) Cytoplasm (B) Nucleus (C) Mitochondria (D) Golgi body

26. What type of Movement is exhibited when plant roots grow towards a water source in dry soil?

- (A) Chemotropism (B) Geotropism (C) Phototropism (D) Hydrotropism

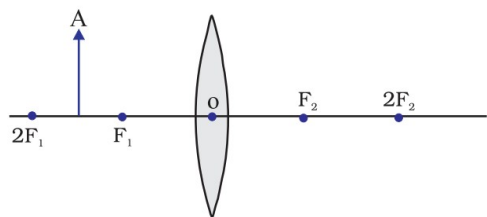
27. Name the respiratory pigment in human beings that helps in transport of Oxygen
(A) carotene (B) chlorophyll (C) haemoglobin (D) xanthophylls
28. Read the following statements and choose the correct answer from the options given below
Statement I: Kidneys are located in the abdomen, one on either side of the backbone.
Statement II: Each kidney has large numbers of filtration units called neurons packed close together inside them.
(A) Statement I is correct and Statement II is incorrect.
(B) Both Statement I and Statement II are incorrect
(C) Both Statement I and Statement II are correct
(D) Statement I is incorrect and Statement II is correct.
29. The blood cell responsible for clotting of blood is _____
(A) R.B.Cs (B) W.B.Cs (C) Platelets (D) Macrophages
30. Hemodialysis is a procedure that is performed when a person's _____
(A) Heart fails to pump blood (B) Liver is damaged
(C) Kidneys have failed (D) Lungs are unable to exchange gases

PHYSICS

Section – III

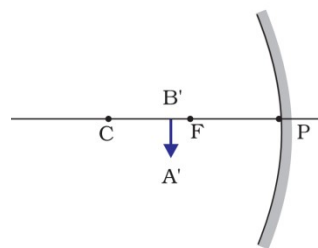
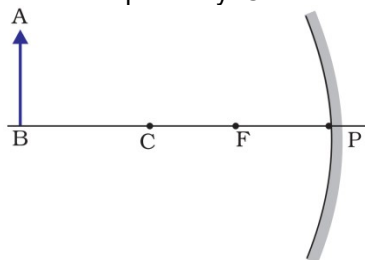
Single Answer Questions

1. Sunlight is incident on a concave mirror, parallel to its principal axis. The image is formed at a distance of 24 cm from the pole. Find the radius of curvature of the mirror.
(A) 12 cm (B) 24 cm (C) 48 cm (D) 18 cm
2. A ray of light travelling in air is incident on the plane surface of a transparent medium. The angle of incidence is 45° and the angle of refraction is 30° . Find the refractive index of the medium.
(A) $\sqrt{3}$ (B) $\sqrt{2}$ (C) 2 (D) 2
3. The near point of an elderly person is 50 cm from the eye. The power of the corrective lens that will correct his vision is
(A) 2 D (B) -2D (C) 4D (D) -4D
4. An object is placed in front of a converging lens at a distance between F_1 and $2F_1$. The image produced by the lens :

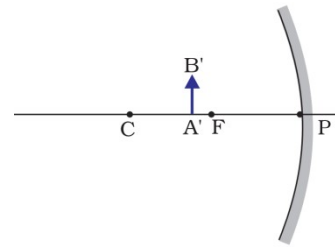


- (A) Appears beyond $2F_2$ and diminished
(B) Appears beyond $2F_2$ and enlarged.
(C) Appears between F_2 and $2F_2$ and diminished
(D) Appears between F_2 and $2F_2$ and enlarged.
5. The refractive indices of glass and water with respect to air are $3/2$ and $4/3$ respectively. Find the refractive index of water with respect to glass
(A) $9/8$ (B) $8/9$ (C) $1/8$ (D) 8
6. What is the power of a diverging lens of focal length 25 cm ?
(A) 4 D (B) -4D (C) 2D (D) -2D

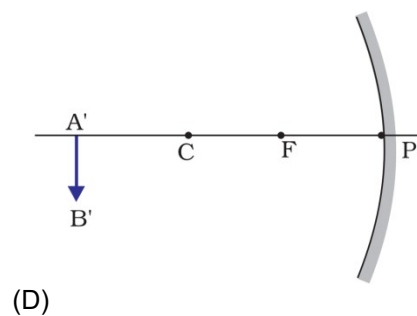
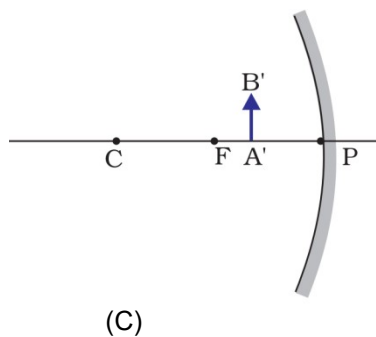
7. When a white light is passed through prism, which colour deviates the least?
(A) Violet (B) Red (C) Green (D) Yellow
8. For a prism of refracting angle $A = 60^\circ$, the refractive index $\mu = \sqrt{2}$, the angle of minimum deviation suffered by a monochromatic light ray is given by:
(A) 30° (B) 45° (C) 60° (D) 90°
9. Which of the following statement is correct regarding human eye
(A) Image is formed on cornea and is inverted
(B) Image is formed on retina and is erect
(C) Image is formed on cornea and is erect
(D) Image is formed on retina and is inverted
10. A 8 cm high object is placed at a distance of 120 cm from a concave lens of focal length 40 cm. Find the size and nature of the image.
(A) 2cm and erect (B) 4 cm and erect
(C) 2 cm and inverted (D) 4 cm and inverted
11. The eye defect in which a person is not able to see distant object clearly is called
(A) Hyper metropia (B) Astigmatism (C) Presbyopia (D) Myopia
12. Where should an object be placed before a concave mirror of focal length 30 cm so that a real image is formed at a distance of 60 cm from mirror ?
(A) 40 cm (B) 20 cm (C) 60 cm (D) 80 cm
13. The muscles of a normal eye are least strained when the eye is focused on an object
(A) far away from the eye (B) very close to the eye
(C) at about 25 cm from the eye (D) at about 1 m from the eye
14. The far point of a person suffering from myopia is 4 metres from the eye. Find the power of the corrective lens that will correct his vision.
(A) 0.5D (B) -0.5D (C) 0.25D (D) -0.25D
15. An object AB is placed in front of a concave mirror as shown. C, F, P are center, focus and pole of the mirror respectively. Choose the most appropriate image A'B' produced by the mirror :



(A)



(B)



CHEMISTRY

Section – IV

Part – A Single Answer Questions

- The shiny finish on the walls after white washing is due to the formation of
 (A) Calcium oxide (B) Calcium hydroxide
 (C) Calcium carbonate (D) Calcium sulphate
- Consider the following reaction $2FeSO_4 \xrightarrow{\Delta} Fe_2O_3 + X + Y$. X and Y are respectively
 (A) $Fe_2(SO_4)_3$ and SO_2 (B) $Fe_2(SO_4)_3$ and SO_3
 (C) SO_2 and SO_3 (D) FeS and SO_2
- Which among the following statements are correct with respect to electrolysis of water
 (i) H_2 is liberated at cathode (ii) O_2 is liberated at anode
 (iii) H_2 is liberated at anode (iv) O_2 is liberated at cathode
 (A) (i) and (ii) (B) (i) and (iii) (C) (ii) and (iv) (D) (iii) and (iv)
- Which among the following is an example of thermal decomposition reaction
 (A) $2KClO_3 \rightarrow 2KCl + 3O_2$ (B) $CaCO_3 \rightarrow CaO + CO_2$
 (C) $Na_2CO_3 \rightarrow Na_2O + CO_2$ (D) All the above
- A reducing agent
 (A) loses electrons (B) gains electrons
 (C) neither loses nor gains electrons (D) both loses and gains electrons
- Oxalic acid is present in
 (A) Tamarind (B) Tomato (C) Orange (D) Apple
- Bleaching powder is manufactured by passing chlorine gas through
 (A) Quick lime (B) lime stone (C) slaked lime (D) Calcium chloride
- Which among the following can have pH around 10
 (A) gastric juice (B) lemon juice (C) milk of magnesia (D) Curd
- Which among the following is used to remove permanent hardness of water?
 (A) Baking soda (B) Washing soda (C) Bleaching Powder (D) Gypsum

10. Which among the following reactions produce a salt
(A) Acid + Base (B) Metal oxide + Acid
(C) Metal Carbonate + Acid (D) All the above
11. Which among the following does not conduct electricity
(A) Aluminium (B) Silver (C) Graphite (D) None of the above
12. The metal which does not react with water at all is
(A) Copper (B) Silver (C) Gold (D) All the above
13. The correct order of decreasing reactivity is
(A) $\text{Cu} > \text{Fe} > \text{Zn} > \text{Al} > \text{Mg}$ (B) $\text{Mg} > \text{Al} > \text{Zn} > \text{Fe} > \text{Cu}$
(C) $\text{Mg} > \text{Zn} > \text{Fe} > \text{Al} > \text{Cu}$ (D) $\text{Al} > \text{Fe} > \text{Zn} > \text{Mg} > \text{Cu}$
14. Identify the incorrect statement regarding Ionic compounds
(A) They are soluble in non polar solvents (B) They have high melting point
(C) They conduct electricity in molten state (D) They are soluble in water
15. "Aqua regia" is a mixture of two concentrated acids
(A) HNO_3 and HCl in the ratio 1 : 3 (B) HCl and HNO_3 in the ratio 1 : 3
(C) HNO_3 and H_2SO_4 in the ratio 1 : 3 (D) H_2SO_4 and HNO_3 in the ratio 1 : 3

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Space for rough work

Answer key – Class - 10**MAT**

1.D	2.A	3.A	4.B	5.A
6.D	7.D	8.D	9.B	10.C
11.D	12.D	13.C	14.B	15.C
16.A	17.B	18.D	19.A	20.C
21.C	22.C	23.B	24.B	25.B
26.B	27.A	28.A	29.A	30.C

BIOLOGY

1.A	2.C	3.A	4.C	5.C
6.B	7.A	8.D	9.C	10.A
11.B	12.A	13.D	14.C	15.B
16.A	17.D	18.B	19.B	20.C
21.D	22.C	23.B	24.D	25.A
26.D	27.C	28.A	29.C	30.C

PHYSICS

1.C	2.B	3.A	4.B	5.B
6.B	7.B	8.A	9.D	10.A
11.D	12.C	13.A	14.D	15.A

CHEMISTRY

1. C	2.C	3.A	4.D	5.A
6.B	7.C	8.C	9.B	10.D
11.D	12.D	13.B	14.A	15.A