

SAMPLE PAPER **Medical**

M-STAR[★]

Momentum Scholarship Test for Admission & Rewards

11th Edition, 2026

Talent HUNT Exam



(Class X Studying Moving to Class XI)
Physics, Chemistry, Biology & Mental Ability

INSTRUCTIONS FOR CANDIDATE

1. Duration of Test is 1 hr.
2. The Test Booklet consists of 40 questions. The maximum marks are 90. There is **no negative marking** for wrong answer.
3. **Pattern of the questions are as under:**

The question paper consists of three subjects i.e., **Physics, Chemistry, Biology and Mental Ability**. There are two sections in this question paper.

 - (i) **Section-I:** This section contains **35 multiple choice questions**, which have **only one correct answer**. Each question carries **+2 marks** for correct answer.
 - (ii) **Section-II:** This section contains 5 multiple choice questions, in which **one or more than one choice(s)** is/are correct. Each question carries **+4 marks** for correct answer.



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MOMENTUM Talent Search Exam 2026

SAMPLE PAPER

(Class X Studying Moving to Class XI)

Time : 1 Hour

PHYSICS

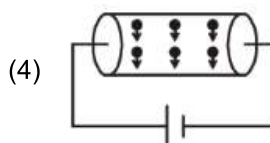
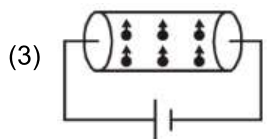
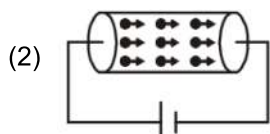
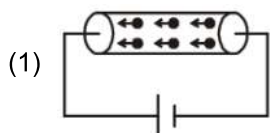
MM : 90

SECTION-I : SINGLE CORRECT ANSWER TYPE

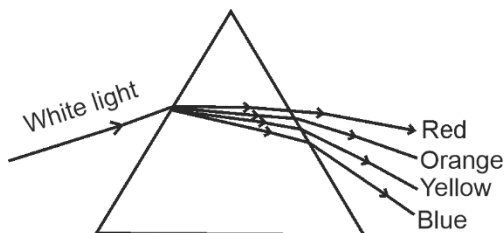
This section contains 9 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which **ONLY ONE** choice is correct.

- Convex mirror forms inverted image of a real object
 - Under no circumstances
 - When the object is very far from the mirror
 - When object is at distance equal to focal length
 - When object is at distance equal to radius of mirror
- On the passage of electric current, the filament of a bulb gets heated and starts glowing due to
 - Chemical effect of electric current
 - Heating effects of electric current
 - Magnetic effects of electric current
 - Both magnetic and chemical effects of electric current
- Among the following which colour of light has longest wavelength?

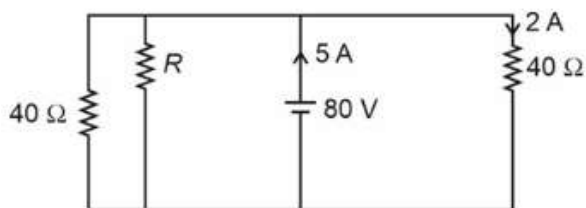
(1) Blue	(2) Green
(3) Yellow	(4) Orange
- Identify the circuit representing the correct direction of flow of electrons through the shown conductor.



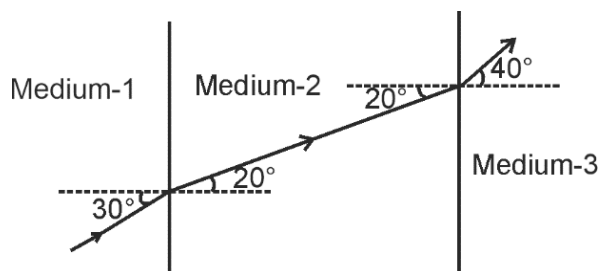
5. A white light passes through a glass prism as shown in the figure. Four colours out of the seven colours are shown. Then for which colour of light, the refractive index of glass prism is maximum?



- (1) Red (2) Orange
(3) Yellow (4) Blue
6. Two wires of same material and same length have their respective area of cross-section in the ratio of 3 : 1. The resistance of the first wire is $10\ \Omega$. If they are joined in series, then the effective resistance of the combination will be
- (1) $40\ \Omega$ (2) $2.5\ \Omega$
(3) $\frac{40}{3}\ \Omega$ (4) $100\ \Omega$
7. A young girl can adjust the power of her eye-lens between 40 D and 50 D. If her far point is infinity, then the distance between her retina and the eye lens is
- (1) 2.5 cm (2) 4 cm
(3) 3.5 cm (4) 5 cm
8. In the given circuit diagram, the value of resistance R is



- (1) $20\ \Omega$ (2) $120\ \Omega$
(3) $40\ \Omega$ (4) $80\ \Omega$
9. The given figure shows a ray of light passing through media 1, 2 and 3. Then the light travels fastest in



- (1) Medium-1
(2) Medium-2
(3) Medium-3
(4) It travels with same speed in all media

SECTION-II : ONE OR MORE THAN ONE CORRECT ANSWER TYPE

This section contains 1 multiple choice question, which has 4 choices (1), (2), (3) and (4) out of which **ONE OR MORE THAN ONE** choice(s) is(are) correct.

10. A spherical lens forms three times magnified real image of an object placed in front of the lens. If the object is moved towards the lens through 8 cm, five times magnified virtual image is obtained. Then
- (1) The focal length of the lens is 15 cm
 - (2) The focal length of the lens is 20 cm
 - (3) The separation between real image and virtual image is 80 cm
 - (4) The separation between real image and virtual image is 120 cm

CHEMISTRY**SECTION-I : SINGLE CORRECT ANSWER TYPE**

This section contains 9 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which **ONLY ONE** choice is correct.

11. Identify the species being oxidised and reduced when hydrogen sulphide gas burns in air to give water and sulphur dioxide and choose the correct option.

	Species being oxidised	Species being reduced
(I)	O ₂	H ₂ S
(II)	H ₂ S	O ₂
(III)	H ₂ O	SO ₂
(IV)	SO ₂	H ₂ O

- (1) I
 - (2) II
 - (3) III
 - (4) IV
12. Choose the incorrect match.
- (1) Nitric acid – Strong acid
 - (2) Formic acid – Weak acid
 - (3) Acetic acid – Weak acid
 - (4) Hydrochloric acid – Weak acid

13. When copper articles are left open in moist air for long time then they gain a green coloured coating. The green substance is
- (1) Basic copper oxide
 - (2) Copper sulphate
 - (3) Basic copper carbonate
 - (4) Copper chloride
14. All of the following metals are reduced by only electrolysis of their respective oxides, hydroxides or chlorides in molten state, **except**
- (1) K
 - (2) Mg
 - (3) Hg
 - (4) Na
15. Identify the reaction from the following in which a white coloured precipitate is formed.
- (1) $\text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 \rightarrow 6\text{CO}_2 + 6\text{H}_2\text{O}$
 - (2) $\text{Na}_2\text{SO}_4 + \text{BaCl}_2 \rightarrow \text{BaSO}_4 + 2\text{NaCl}$
 - (3) $\text{Pb} + \text{CuCl}_2 \rightarrow \text{PbCl}_2 + \text{Cu}$
 - (4) $2\text{KI} + \text{Pb}(\text{NO}_3)_2 \rightarrow 2\text{KNO}_3 + \text{PbI}_2$
16. You are provided with three different solutions 'X', 'Y' and 'Z' with pH value 10, 2.2 and 14 respectively. On the basis of information given, choose the incorrect option.
- (1) Dilution of solutions 'Y' and 'Z' is an exothermic process
 - (2) 'X' and 'Z' can turn pink in colour on adding few drops of phenolphthalein
 - (3) 'Y' can be lemon juice whereas 'X' can be used as an antacid
 - (4) 'Z' has the highest hydrogen ion concentration and 'Y' can turn blue litmus red
17. Consider the following statements:
- (a) Electrovalent compounds are generally soluble in water
 - (b) Ionic compounds are held together by strong inter-ionic attraction
 - (c) During the electrolytic refining of copper, the cathode is impure copper whereas anode is a strip of pure copper
 - (d) Brass is a homogeneous mixture whereas amalgams are not
- Now, choose the correct option.
- (1) Statements (a) and (c) are correct whereas statements (b) and (d) are incorrect
 - (2) Statements (a) and (b) are correct whereas statements (c) and (d) are incorrect
 - (3) Statement (b) is correct whereas statements (a), (c) and (d) are incorrect
 - (4) Statements (b), (c) and (d) are correct whereas statement (a) is incorrect

18. In an activity, the students of class tenth were asked to mix the aqueous solutions of barium hydroxide and ammonium chloride in a test tube. They were also asked to write the balanced chemical equation with conclusions. Which of the following conclusions noted by them are correct?
- I. One mole of barium hydroxide reacts with two moles of ammonium chloride.
 - II. Two moles of ammonia gas is formed.
 - III. Precipitate of barium chloride is formed.
 - IV. It is an example of exothermic reaction.
 - V. It is an example of endothermic reaction.
 - VI. It is an example of precipitation reaction.
- (1) I, II and IV
 - (2) III, V and VI
 - (3) I, II and V
 - (4) I, II, III, V and VI
19. A student was working in his science laboratory. He took 0.5 g of sodium hydrogen carbonate in a test tube and added 2 mL of dilute hydrochloric acid. He observed the evolution of gas 'G'. Which of the following statements is not true about 'G'?
- (1) Its aqueous solution turns blue litmus red
 - (2) It turns lime water milky
 - (3) It is acidic in nature
 - (4) It is a diatomic gas

SECTION-II : ONE OR MORE THAN ONE CORRECT ANSWER TYPE

This section contains 1 multiple choice question, which has 4 choices (1), (2), (3) and (4) out of which **ONE OR MORE THAN ONE** choice(s) is(are) correct.

20. Thermal decomposition of ferrous sulphate releases gases 'G₁' and 'G₂'. Another gas 'G₃' is released when sodium carbonate reacts with dilute hydrochloric acid. If gas 'G₁' is also released during roasting of an ore, then choose the correct option(s).
- (1) Gas 'G₁' is released when solid barium sulphite is added to dilute hydrochloric acid whereas gas 'G₃' is released when nitric acid is added to egg shells
 - (2) Gas 'G₁' is a strong reducing agent as it turns orange coloured solution of acidic dichromate into green in colour whereas gas 'G₃' turns lime water milky
 - (3) When a burning candle is brought near gases 'G₁' and 'G₃'; 'G₁' burns with a pop sound and 'G₃' extinguishes flame
 - (4) Sodium hydrogen carbonate on heating gives 'G₃' gas whereas gas 'G₂' is obtained on heating gypsum

BIOLOGY**SECTION-I : SINGLE CORRECT ANSWER TYPE**

This section contains 10 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which **ONLY ONE** choice is correct.

21. Which of the following statements is true regarding ovary?

- (1) It regulates blood sugar level
- (2) It stimulates growth in all organs
- (3) It regulates menstrual cycle
- (4) It stimulates pituitary gland to release growth hormone

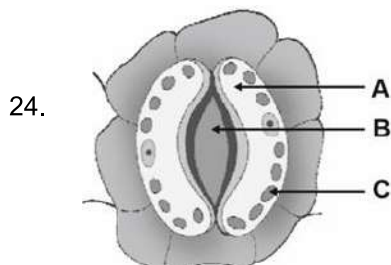
22. How many of the below given parts is/are the component(s) of hind-brain?

Cerebrum, Cerebellum, Medulla, Pons, Hypothalamus

- (1) Four
- (2) One
- (3) Two
- (4) Three

23. The hydrochloric acid secreted by gastric glands creates an acidic medium in stomach which facilitates the action of

- (1) Trypsin
- (2) Pancreatic lipase
- (3) Pepsin
- (4) Salivary amylase



Which of the following labelled parts (**A-C**) in the above given figure represent(s) stomatal pore?

- (1) B only
- (2) C only
- (3) Both A and C
- (4) A only

25. Consider the below given table.

Endocrine glands	Their hormones
'X'	Growth hormone
Pancreas	'Y'
Thyroid gland	'Z'

In the above given table, 'X', 'Y' and 'Z' are respectively.

- (1) Pituitary gland, insulin and thyroxin
- (2) Adrenal gland, testosterone and insulin
- (3) Pituitary gland, adrenaline and insulin
- (4) Testis, insulin and adrenaline

26. In human beings, the respiratory pigment is
- | | |
|--------------------|--------------|
| (1) Haemoglobin | (2) Lymph |
| (3) Carbon dioxide | (4) Pyruvate |
27. All of the following hormones promote growth in plants, **except**
- | | |
|-----------------|--------------------|
| (1) Gibberellin | (2) Absciscic acid |
| (3) Cytokinin | (4) Auxin |
28. All of the following are the parts of a neuron, **except**
- | | |
|----------------|------------------|
| (1) Axon | (2) Dendrite |
| (3) Glomerulus | (4) Nerve ending |
29. After fertilisation, the zygote divides several times to form
- | | |
|------------|------------------|
| (1) Embryo | (2) Sperm |
| (3) Egg | (4) Pollen grain |
30. *Planaria* reproduces through
- | | |
|---------------------|----------------------------|
| (1) Spore formation | (2) Regeneration |
| (3) Budding | (4) Vegetative propagation |

SECTION-II : ONE OR MORE THAN ONE CORRECT ANSWER TYPE

This section contains 2 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which **ONE OR MORE THAN ONE** choice(s) is(are) correct.

31. • It is placed in the uterus.
• It can cause side-effects.

Select the correct statement(s) w.r.t. the contraceptive method/device whose information is given above.

- | |
|--|
| (1) It blocks the fallopian tubes in females |
| (2) It could be copper-T |
| (3) It alters hormonal balance of the body |
| (4) It prevents fusion of gametes |
32. Select the **incorrect** statement(s) amongst the following.
- | |
|--|
| (1) Blood has platelet cells that help to clot blood at the site of injury |
| (2) Lymph has more proteins than plasma of the blood |
| (3) Lymph drains into lymph vessels that finally open into lymphatic capillaries |
| (4) Veins have valves which ensure that the blood flow only in one direction |

MENTAL ABILITY**SECTION-I : SINGLE CORRECT ANSWER TYPE**

This section contains 7 multiple choice questions. Each question has 4 choices (1), (2), (3) and (4) out of which **ONLY ONE** choice is correct.

33. Mohan moves 5 m in East, then 3 m in South and finally 5 m in West. In which direction is he now from starting point?
- (1) West (2) North
(3) East (4) South
34. The next number in the given series is
91, 182, 546, 2184, 10920, ?
- (1) 64420 (2) 65520
(3) 66319 (4) 62120
35. If in a certain code, J is coded as 100, P is coded as 256. Then the code of S is
- (1) 360 (2) 361
(3) 484 (4) 235
36. Pointing to a photograph a lady tells Salman, "I am the only daughter of this lady and her son is your maternal uncle". How is the speaker related to Salman's father?
- (1) Sister-in-law
(2) Wife
(3) Sister
(4) Daughter
37. Following question is based on five words given below:
AND FOR THE BIG SUM
- (The new word formed after performing the mentioned operations may or may not be meaningful English word)
- If in each of the given words; each of the consonants is changed to previous letter and each vowel is changed to next letter in the English alphabetical series, in how many words thus formed will no vowels appear?
- (1) None (2) One
(3) Two (4) Three

38. Find the missing number.

44	26	34
35	14	7
-15	?	18

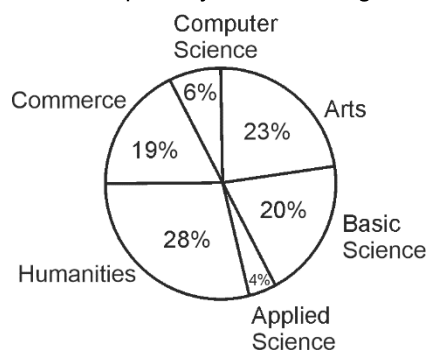
(1) 1

(2) 33

(3) 12

(4) -6

39. The given pie-diagram shows the streams opted by students at graduate level.



If sum of the angles for the students who opted different streams is 108° , then the streams are

(1) Computer Science, Basic Science and Arts

(2) Computer Science, Basic Science and Commerce

(3) Humanities, Basic Science and Applied Science

(4) Computer Science, Basic Science and Applied Science

SECTION-II : ONE OR MORE THAN ONE CORRECT ANSWER TYPE

This section contains 1 multiple choice question, which has 4 choices (1), (2), (3) and (4) out of which **ONE OR MORE THAN ONE** choice(s) is(are) correct.

40. If $8 * 5 \# 7 = 238$, $9 * 6 \# 4 = 313$ and $3 * 5 \# 9 = 215$. Then, which of the following option(s) follow(s) the same operation?

(1) $8 * 7 \# 6 = 443$

(2) $5 * 6 \# 7 = 290$

(3) $3 * 4 \# 5 = 98$

(4) $9 * 6 \# 7 = 343$

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MOMENTIAN'S RESULTS

IIT-JEE

IIT AIR
576

CITY TOPPER
2026



SHIVANSH RANJAN

IIT AIR
330

CITY TOPPER
2022



ABHISHEK SINGH

IIT AIR
107

CITY TOPPER
2024



HIMANSHU YADAV

IIT AIR
1023

CITY TOPPER
2023



DIVYAMAN PAL

IIT AIR
1223

CITY TOPPER
2025



AMIMAY PANDEY

NEET

Score
670
720

CITY TOPPER
2023



ANSHUMAN SINGH
KGMU Lucknow

Score
686
720

CITY TOPPER
2023



PRANSHU PRIYA
IMS Banaras (BHU)

Score
706
720

CITY TOPPER
2024



ANSHIKA SINGH
AIIMS Delhi

Score
579
720

CITY TOPPER
2025



ASHWIN P. SINGH
Govt. Medical Collage

Score
642
720

CITY TOPPER
2021



RAJESHWAR NISHAD
AIIMS Gorakhpur