CAREERS 360

PREPARATION Series

MHT CET 2025

Memory Based Questions and Analysis For All Shifts

Content

Important details about the exam

The state common Entrance test cell, Maharashtra is conducting the Maharashtra Health and Technical Common Entrance Test (MHT-CET) 2025 PCM group from April 19 to April 27.Here are the other important exam details provided to you.

Particulars	**Details**
Mode of exam	Online(Computer based test)
MHT-CET exam duration	180 minutes (90 minutes for each section)
Types of questions	Multiple choice questions
Official website of MHT-CET	https://cetcell.mahacet.org
MHT-CET 2025 marking scheme	Correct answer (+1 mark for Physics and chemistry and +2 marks for Maths) Incorrect answer (0 marks) No negative marking

Subject wise distribution of Questions and Marks

Paper	Subject	Number of MCQs from		Marks per question	Total marks	Duration in minutes
		Class 11	Class 12			
Paper 1	Mathematics	10	40	2	100	90
Paper 2	Chemistry	10	40	1	100	90
	Physics	10	40	1	100	
Total		30	120		300	180

Each subject will consist of a total of 50 questions, the paper is divided into two Papers. Paper 1 will have 50 Multiple Choice Questions of Mathematics and each question consists of 2 marks in this paper and Paper 2 will have 100 Multiple choice questions 50-50 for each Physics and Chemistry and each question consists of 1 mark. There will be no negative marking for incorrect questions.

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Few Memory-Based Questions (April 19, 2025)

Maths

Qus 1.

A population $p(t)$ of 1000 bactoria introduced to a nutrient medium grows according to the relation $P(t) = 1000 + \frac{1000t}{100t^2}$ the maximum size of this bacterial population is

(1) 1250

(2) 1100

(3) 1050

(4) 950

Qus 2.

A plane passes through (1,-2,1) perpendicular planes $2x - 2y - 20z$ & $x - y + 2z = 24$ the Distance of the point $(1, 2, 2)$ this plane is

1) 1

2) $\sqrt{2}$

3) $\sqrt{3}$

4).2 $\sqrt{2}$

Chemistry

Qus 1.

Order and molecularity of reaction

$$2NO_{(g)} \longrightarrow 2NO_2(\,g) + O_2(\,g)$$

Qus2.

Which of the following decreases entropy?

1) $H_2P(g) \rightarrow H_2O_{(l)}$

2) $H_2O(s) \rightarrow H_2O(g)$

3) $H_2O_{(l)} \longrightarrow H_2O(s)$

4) $H_2O_{(s)} \rightarrow H_2O(l)$

Qus 3.

Which elemant coming the following is ferromagretic

(A) Cu

(B) Zn

(C) Ni^-

(D) Sc

Physics

Qus 1.

The magnetic flux through a coil changes from 20 Wb 10 Wb in 0.5 s . The induced emf is:

Options:

A) 5 V

B) 20 V

C) 10 V

D) 15 V

Qus 2.

A 1800 kg racing car accelerates uniformly from rest to 40 $\mathrm{m/s}$ while moving along a circular track of radius 120 m . Calculate the centripetal force acting on the car when it reaches 30 $\mathrm{m/s}$ during this acceleration.

Options:
A. $11,250\ \mathrm{N}$
B. $16,200\ \mathrm{N}$
C. $13,500\ \mathrm{N}$
D. $18,000\ \mathrm{N}$

Qus 3.

If a car of mass 1000 kg is moving with a velocity of $20\ \mathrm{m/s}$. The driver applies the brakes, and the car comes to rest in **10** seconds. Find the average force exerted by the brakes to stop the car.

A. 5000 N
B. 2000 N
C. 10000 N
D. 4000 N

Qus 4.

The de Broglie wavelength of an electron accelerated by 100 V is:

Options:
A) 1.22Å
B) 0.122Å
C) 12.2Å
D) 0.012Å

Overall Paper Analysis (April 19)

- The MHT-CET 2025 April 19th exam was overall moderate.
- The Mathematics and Physics section requires conceptual understanding while Chemistry was straight forward.
- The overall paper level was moderate
- Overall, the paper was moderate with respect to the last year 2024 exam.
- **Subject-wise difficulty (from highest to lowest):**
  - **Mathematics > Physics > Chemistry**

Questions asked from below given important topics

Physics:

- Wave optics
- Laws of motion
- Current Electricity
- Capacitors
- Magnetism
- Rotational motion
- Magnetic effect

Maths:

- Integration
- Derivatives
- Trigonometry
- Relations and Functions
- Vector
- 3D

Chemistry:

- Solid State
- State of matter
- Redox reaction
- P-block elements
- D-block elements

Physics Analysis

- The overall difficulty level of the Physics section was " moderate".
- The Physics section was relatively "easy" compared to Mathematics and harder than Chemistry.
- The physics paper was easy in terms of math and difficult in terms of chemistry.
- The difficulty level of Physics is easy as compared to last year shifts

Questions were asked about the following Topics:

Physics:

- Wave optics
- Laws of motion
- Current Electricity
- Capacitors
- Magnetism
- Rotational motion
- Magnetic effect

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Maths Analysis

- The overall difficulty level of the Mathematics section was moderate to difficult.
- The Mathematics section was relatively difficult compared to the Chemistry and Physics section.
- The mathematics section was difficult as compared to last year.

- Overall, the mathematics section was lengthy.

Questions asked from below given important topics:

- Integration
- Derivatives
- Trigonometry
- Relations and Functions
- Vector
- 3D

Chemistry Analysis

- The Chemistry Section was easy as compared to maths and physics
- Chemistry is easy compared last year
- The questions are straightforward and theoretical.
- Paper heavily based on NCERT textbook

Questions were asked about the following Topics:

- Solid State
- State of matter
- Redox reaction
- P-block elements
- D-block elements

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Few Memory-Based Questions (April 20, 2025)

Maths

Qus 1.

$$\int \frac{e^{\tan(-1x)}}{1+4x^2}dx$$

Qus 2.

If $2\tan^{-1}(\cos x) = \tan^{-1}(2\,\text{cosec}\,x)$, then the value or x is

(A) $\frac{\pi^c}{6}$

(B) $\frac{\pi^c}{4}$

(C) $\frac{\pi^c}{3}$

(D) $\frac{\pi^c}{12}$

Qus 3.

A regular polygon had 20 sids. The number of triangles that can be formed by using the vertices but not using sides ares

A).20

B). 800

C).1140

D).340

CHEMISTRY

Qus1.

No. of unpaired electrons in Ti^{3+}

A). 1

B). 0

C). 2

D). 3

Qus 2.

Which of the following species Act as reducing agent during working of hydrogen-oxygen fuel cell?

a) O_2

b) H^+

c) H_2

D) NaOH

Qus 3.

The solubility of AgBr is $7.1 \times 10^{-7}\ moldm^{-3}$. Calculate solubility product at same temperature.

A) 3.67×10^{-13}

B) 5.89×10^{-13}

C) 7.08×10^{-13}

B) 5.04×10^{-13}

PHYSICS

Qus 1.

A hollow cylinder has charge ' q ' C within it. [00] ' Φ ' is the electric flux associated with the curved surface B, the flux linked with the plane surface A will be

(A) $\frac{1}{2}\left(\frac{q}{\epsilon}-\Phi\right)$
(B) $\frac{q}{2\epsilon_{\text{in}}}$
(C) $\frac{\Phi}{3}$
(D) $\frac{q}{6_6}-\Phi$

Qus 2.

A 5-ohm resistor is connected to a 10 V battery. Calculate the current flowing through the resistor.

A). $1.0\ \text{A}$

B). $2.0\ \text{A}$

C). $0.5\ \text{A}$

D). $0.2\ \text{A}$

Qus 3.

A charge of $2\mu C$ is placed in an electric field of intensity $4 \times 10^3\ N/C$. What is the force experienced by the charge?

A). $8 \times 10^{-3}\ N$

B). $8 \times 10^{-6}\ N$

C). $4 \times 10^{-3}\ N$

D). $4 \times 10^{-6}\ N$

Overall Paper Analysis (April 20)

- The MHT-CET 2025 April 20th exam was overall moderate to difficult.
- The Mathematics portion was difficult and the Physics section was a blend of formula based and conceptual questions while Chemistry was easy.
- The overall paper level was slightly easy as compared to 19th April shifts.
- Overall, the paper was moderate with respect to the last year 2024 exam.
- **Subject-wise difficulty (from highest to lowest):**
  - **Mathematics > Physics > Chemistry**

Questions asked from below given important topics

Physics:

- Rotational dynamics
- Modern Physics
- Current Electricity
- Thermodynamics
- Optics

Maths:

- Integration
- Probability
- Trigonometry
- Calculus
- Matrix
- Vetor, 3D

Chemistry:

- Isomerism
- P-block
- Electrochemistry
- P-block elements
- Electrochemistry

Physics Analysis

- The overall difficulty level of the Physics section was "moderate”.
- The Physics section was a blend of formula based and conceptual questions.
- The Physics section was relatively "easy" compared to Mathematics and harder than Chemistry.
- Some questions involves multiple step calculations
- The physics paper was easy in terms of math and difficult in terms of chemistry.
- The difficulty level of Physics is same as compared to last year shifts
- The difficulty level of Physics is same as compared to 19th April shifts

Questions were asked about the following Topics:

- Rotational dynamics
- Modern Physics
- Current Electricity
- Thermodynamics
- Optics

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Maths Analysis

- The overall difficulty level of the Mathematics section was difficult.
- The Mathematics section was relatively difficult compared to the Chemistry and Physics section.
- The mathematics section was difficult as compared to last year.
- The difficulty level of Maths is same slightly difficult as compared to 19th April shifts
- Overall, the mathematics section was lengthy.

Questions asked from below given important topics:

- Integration
- Probability
- Trigonometry

- Calculus
- Matrix
- Vetor, 3D

Chemistry Analysis

- The Chemistry Section was easy as compared to maths and physics
- Chemistry is same as compared to last year
- The questions are straightforward and focused more on organic and inorganic chemistry while few formula based questions of physical chemistry are there.
- Paper heavily based on NCERT textbook

Questions were asked about the following Topics:

- Isomerism
- P-block
- Electrochemistry
- P-block elements
- Electrochemistry

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Few Memory-Based Questions (April 21, 2025)

MATHS

Qus 1.

$$\text{If } a\left(4+x^2\right)=x+y-x^3=a^3\frac{dy}{dx} \text{ at x} = 1 \text{ is ?}$$

Qus 2.

The all real x, the minimum value of the function $f(x)=\frac{1-x+x^2}{1+x+x^2}$ is

A). 1/3
B). 0
C). 3
D). 1

Qus 3.

Approximate value of $\cos 59^\circ$

A). - 0.77
B). -1
C). -0.518
D). 0.717

CHEMISTRY

Qus 1.

A 5-ohm resistor is connected to a 10 V battery. Calculate the current flowing through the resistor.

(A) 1.0 A

(B) 2.0 A

(C) 0.5 A

(D).0.2 A

Qus 2.

A charge of $2\mu\text{C}$ is placed in an electric field of intensity $4 \times 10^3\ \text{N/C}$. What is the force experienced by the charge?

A). $8 \times 10^{-3}\ \text{N}$
B). $8 \times 10^{-6}\ \text{N}$
C). $4 \times 10^{-3}\ \text{N}$
D). $4 \times 10^{-6}\ \text{N}$

Qus 3.

Two point charges $+4\mu\mathrm{C}$ and $-2\mu\mathrm{C}$ are separated by a distance of 0.3 m in air. What is the magnitude of the electrostatic force between them?

A). 8 N

B). 16 N

C). 24 N

D).32 N

Overall Paper Analysis (April 21)

- The MHT-CET 2025 April 21st exam was overall moderate to slightly difficult.
- The Mathematics portion was difficult and the Physics section was moderate to difficult while Chemistry was easy.
- The overall paper level was the same as compared to previous shifts.
- Overall, the paper was moderate to difficult with respect to the last year 2024 exam.
- **Subject-wise difficulty (from highest to lowest):**
  - **Mathematics > Physics > Chemistry**

Questions asked from below given important topics

Physics:

- Rotational Dynamics
- Resistors
- Capacitors
- Modern Physics
- Current Electricity
- Thermodynamics
- Optics

Maths:

- Calculus
- Integration
- Probability
- Geometry
- Matrix

Chemistry:

- State of matter
- Surface Chemistry
- Redox reaction
- Alkanes

Physics Analysis

- The overall difficulty level of the Physics section was moderate to slightly difficult.
- The Physics section was a blend of formula based and conceptual questions.
- The Physics section was relatively slightly moderate as compared to Mathematics and harder than Chemistry.

- The difficulty level of Physics is same as compared to last year shifts
- The difficulty level of Physics is slightly difficult as compared to previous shifts

Questions were asked about the following Topics:

- Rotational Dynamics
- Resistors
- Capacitors
- Modern Physics
- Current Electricity
- Thermodynamics
- Optics

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Maths Analysis

- The overall difficulty level of the Mathematics section was difficult.
- The Mathematics section was relatively difficult compared to the Chemistry and Physics section.
- The mathematics section was difficult as compared to last year and focused more on calculus based questions.
- The difficulty level of Maths is same slightly difficult as compared to previous shifts
- Overall, the mathematics section was lengthy and difficult.

Questions asked from below given important topics:

- Calculus
- Integration
- Probability
- Geometry
- Matrix

Chemistry Analysis

- The Chemistry Section was simple and easy as compared to maths and physics
- Chemistry is slightly easy as compared to last year
- The questions are theory based and asked directly from NCERT.

Questions were asked about the following Topics:

- State of matter
- Surface Chemistry
- Redox reaction
- Alkanes

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Few Memory-Based Questions (April 22, 2025)

MATHS

Qus 1.

The function $f(x) = \sin^4 x + \cos^4 x$ increases, if

(a) $0 < x < \frac{\pi}{8}$

(b) $\frac{\pi}{4} < x < \frac{3\pi}{8}$

(c) $\frac{3\pi}{8} < x < \frac{5\pi}{8}$

(d) $\frac{5\pi}{8} < x < \frac{3\pi}{4}$

Qus 2.

The function $f(x) = \sin^4 x + \cos^4 x$ increase if

If $\sin A = n(\sin(A + 2B)$, then the value of tan(A+B) =

Qus 3.

Four defective oranges are accidently mixed with 16 good ones and by looking at them it is not possible to differentiate between them. Three oranges are drawn at random from the lot. Find the probability distribution of X. the number of defective oranges.

CHEMISTRY

Qus 1.

What is the difference in oxidation number of Mn in $KMnO_4$ & MnO_2?

A). 3

B). 4

C). 7

D). 5

Qus 2.

Half life first order reaction is 2 min then time taken to reduce the initial concentration of reaction at $(1/10)$ th is?

A). 6.5 minutes

B). 7 minutes

C).6.8 minutes

D). 8 minutes

Qus 3.

What is the major product of the following reaction?

$CH_3 - CH = CH - CH_2 - OH + PCC$ (Pyridinium chlorochromate)

A. $CH_3 - CH = CH - CHO$

B. $CH_3 - CH = CH - COOH$

C. $CH_3 - CH_2 - CH = CH - OH$

D. $CH_3 - CH = CH - CH = O$

PHYSICS

Overall Paper Analysis (April 22)

- The MHT-CET 2025 April 22nd exam was moderately difficult.
- The Mathematics portion was lengthy and the Physics section was moderate while Chemistry was easy.
- The overall paper level was slightly difficult as compared to previous shifts.
- Overall, the paper was the same with respect to the last year 2024 exam.
- **Subject-wise difficulty (from highest to lowest):**
  - **Mathematics > Physics > Chemistry**

Questions asked from below given important topics

Physics:

- Balmer series
- Oscillations
- Magnetisation
- Wave optics
- Modern Physics
- Moment of inertia

Maths:

- Definite integral
- Trigonometry
- Differential equations
- Integration

Chemistry:

- Solid state
- Redox reaction
- P- block

- D- block
- IUPAC Nomenclature

Physics Analysis

- The overall difficulty level of the Physics section was moderate difficult.
- The Physics section has a mix of conceptual and application based questions.
- The Physics section was relatively easy as compared to Mathematics and harder than Chemistry.

- The difficulty level of Physics is slightly difficult as compared to last year shifts
- The difficulty level of Physics is slightly difficult as compared to previous shifts

Questions were asked about the following Topics:

- Balmer series
- Oscillations
- Magnetisation
- Wave optics
- Modern Physics
- Moment of inertia

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Maths Analysis

- The overall difficulty level of the Mathematics section was difficult and time consuming.
- The Mathematics section was relatively difficult compared to the Chemistry and Physics section.
- The mathematics section was difficult as compared to last year and focused more on calculus based and lengthy questions.
- The difficulty level of Maths is same slightly difficult as compared to previous shifts
- Overall, the mathematics section was lengthy and difficult.

Questions asked from below given important topics:

- Definite integral
- Trigonometry
- Differential equations
- Integration

Chemistry Analysis

- The Chemistry Section was easiest in all three subjects.
- Chemistry is slightly easy as compared to last year
- The questions are theory based and asked directly from Maharashtra State board textbook .
- Chemistry was scoring from all the three subjects.

Questions were asked about the following Topics:

- Solid state
- Redox reaction
- P- block
- D- block
- IUPAC Nomenclature

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Few Memory-Based Questions (April 23, 2025)

MATHS

Qus 1.

The three vectors a, b and c with magnitude 3,4 and 5 respectively and $a+b+c=0$, then the value of $a.b+b.c+c.a$ is

Qus 2.

Find the acute angle between the lines $x = y, z = 0$ and $x = 0, z = 0$.

Qus 3.

The angle betwees the line $\frac{x-1}{2} = \frac{y-2}{1} = \frac{z-3}{-2}$ and plane $x-2y-z=3$ is $\cos^{-1}\left(\frac{2\sqrt{2}}{3}\right)$, then value of λ is

A) $\sqrt{\frac{3}{5}}$

B). $\frac{5}{\sqrt{3}}$

C). $\sqrt{\frac{5}{3}}$

D). $\frac{1}{\sqrt{3}}$

CHEMISTRY

Qus 1.

Which of the following has the Highest boiling point

1). Phenol

2). O-cresol

3). p-Nitrophenol

4). o-Nitrophenol

Qus 2.

Solubility of Binary sparingly soluble Salt is $\left(1.12 \times 10^{-4}\ \mathrm{g/dm^3}\right)$ calculate it's solubility product (Molar mass of salt :-1.12 $\mathrm{gmol^{-1}}$

(1) 1×10^{-9}

(2) 1×10^{-6}

(3) 1×10^{-3}

(4) 1×10^{-12}

Qus 3.

Indentity the reaction name when arly halide treated with sodium in dry ether

A) wrutz

B) fitting reaction

C) wrutz fitting reaction

D) Swartz reaction

PHYSICS

Qus 1.

Overall Paper Analysis (April 23)

- The MHT-CET 2025 April 23 exam was moderately difficult.
- The Mathematics portion was lengthy and tough and the Physics section was moderately difficult while Chemistry was easy.
- The overall paper level was slightly difficult as compared to previous shifts.
- Overall, the paper was slightly difficult with respect to the last year 2024 exam.
- **Subject-wise difficulty (from highest to lowest):**
  - **Mathematics > Physics > Chemistry**

Questions asked from below given important topics

Physics:

- Semiconductor (no. of hole carriers)
- Ray optics
- Current electricity
- Thermodynamics

Maths:

- Integration
- Vectors
- Straight lines
- Limit
- Parabola

Chemistry:

- Solubility
- Biomolecules
- Organic compounds containing Nitrogen
- Fittig Reaction
- P-Block
- Magnetic moment

Physics Analysis

- The overall difficulty level of the Physics section was moderate difficult.
- The Physics section was lengthy and consisted of application based questions.
- The Physics section was relatively slightly easy as compared to Mathematics and harder than Chemistry.

- The difficulty level of Physics is slightly difficult as compared to last year shifts
- The difficulty level of Physics is slightly difficult as compared to previous shifts

Questions were asked about the following Topics:

- Semiconductor (no. of hole carriers)
- Ray optics
- Current electricity
- Thermodynamics

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Maths Analysis

- The overall difficulty level of the Mathematics section was difficult and time consuming.
- The Mathematics section was relatively difficult compared to the Chemistry and Physics section.
- The mathematics section was difficult as compared to last year and focused more on calculus based and lengthy questions.
- The difficulty level of Maths is same slightly difficult as compared to previous shifts
- Overall, the mathematics section was lengthy and difficult.

Questions asked from below given important topics:

- Integration
- Vectors
- Straight lines
- Limit
- Parabola

Chemistry Analysis

- The Chemistry Section was easiest in all three subjects.
- Chemistry is slightly difficult as compared to last year
- The questions are theory based and asked directly from Maharashtra State board textbook and NCERT .
- Chemistry was scoring from all the three subjects.

Questions were asked about the following Topics:

- Solubility
- Biomolecules
- Organic compounds containing Nitrogen
- Fittig Reaction
- P-Block
- Magnetic moment

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Few Memory-Based Questions (April 25, 2025)

CHEMISTRY

Qus1.

Which of the following exists as oxo acid of fluorine HOF, HFO_2, HFO_3, HFO_4

Qus 2.

Which of the following is the strongest acid

a). Trichloroacetic acid

b). Acetic acid

c). Dichloroacetic acid

d). Chloroacetic acid

Qus 3.

How many bonding and antibonding electron present in F_2

Qus 4.

Which of the following is not optically active?

a). 2-methylbutane

b). 2-chloro2-methylbutane

c). 2-chloro3-methylbutane

Qus 5.

Which of the following shows highest magnetic moment?

a). Mn^{2+}

b). Co^{2+}

c). Ti^{2+}

d). Cr^{2+}

MATHS
Qus 1.

Pricipal Solution of
$(5+3\sin\theta)(2\cos\theta+1)$

Qus2.

Which curves represent the following equation

$$x = 3(\cos t + \sin t)$$
$$y = (\cos t - \sin t)$$

Qus 3.

$\int e^x \left(\frac{x+5}{(x+6)^2}\right) dx$ is

Qus 4.

$\vec{a} = \hat{i} + \hat{i} + \hat{k}, \vec{b} = \hat{j} - \hat{k}$, then vector r satisfying $\vec{a} \times \bar{r} = \bar{b}$ and $\vec{a} \cdot \dot{r} = 3$ is

(A) $\frac{5}{3}\mathrm{i} + \frac{2}{3}\mathrm{j} + \frac{2}{3}\mathrm{k}$

(B) $-\frac{5}{3}i + \frac{2}{3}\mathrm{j} + \frac{2}{3}\mathrm{k}$

(C) $\frac{5}{3}\mathrm{i} = \frac{2}{3}\mathrm{j} + \frac{2}{3}\mathrm{i}$

(D) $-\frac{5}{3}\mathrm{i} + \frac{2}{3}\mathrm{j} + \frac{1}{3}\mathrm{k}$

Qus 5.

The equation of the curve passing through origin and satisfying $\left(1 + x^2\right)\frac{dy}{dx} + 2xy = 4x^2$ is

PHYSICS

Qus 1.

A wire of 2 m and resistance 5 ohms is stretched to double its length. What is the new resistance?

a). 10 ohm

b). 15 ohm

c). 20 ohm

d). 25 ohm

Qus 2.

An object is placed 10 cm in front of a concave mirror of focal length 15 cm . What is the nature of the image formed?

Options:

A. Real and inverted

B. Virtual and upright

C. Real and upright

D. Virtual and inverted

Overall Paper Analysis (April 25)

- The MHT-CET 2025 April 25 exam was moderate.
- The Mathematics portion was lengthy and the Physics section was moderately difficult while Chemistry was easy.
- The overall paper level is the same as compared to previous shifts.
- Overall, the paper was the same with respect to the last year 2024 exam.
- **Subject-wise difficulty (from highest to lowest):**
  - **Mathematics > Physics > Chemistry**

Questions asked from below given important topics

Physics:

- Electrostatics
- Magnetism
- Optics

Maths:

- Integration
- Ellipse
- Vectors

- Straight lines

Chemistry:

- P- block
- D- block
- Chemical bonding
- Organic compounds containing Nitrogen
- Magnetic moment

Physics Analysis

- The overall difficulty level of the Physics section was moderate difficult.
- The Physics section was lengthy and consisted of application based questions.
- The Physics section was relatively slightly easy as compared to Mathematics and harder than Chemistry.

Questions were asked about the following Topics:

- Electrostatics
- Magnetism
- Optics

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Maths Analysis

- The Mathematics section was lengthy.
- The Mathematics section was relatively difficult compared to the Chemistry and Physics section.
- The mathematics section was difficult as compared to last year and focused more on calculus based questions.

- The difficulty level of Maths is same as compared to previous shifts
- Overall, the mathematics section was lengthy and difficult.

Questions asked from below given important topics:

- Integration
- Ellipse
- Vectors
- Straight lines

Chemistry Analysis

- The Chemistry Section was easiest in all three subjects.
- Chemistry is same as that of last year
- The questions are theory based and asked directly from Maharashtra State board textbook and NCERT .
- Chemistry was scoring from all the three subjects.

Questions were asked about the following Topics:

- P- block
- D- block
- Chemical bonding
- Organic compounds containing Nitrogen
- Magnetic moment

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Few Memory-Based Questions (April 26, 2025)

CHEMISTRY

Qus 1.

What is the number of oxygen atoms in the Strongest oxacids of chlorine

(1) 1

(2) 2

(3) 3

(4) 4

Qus 2.

Find the Edge if the radius given was 186 pm of bcc lattice. -

Qus 3.

Coordination number of BCC lattice is

A). 6

B). 4

C). 8

-D). 12

Qus 4.

No of electrons in 3.2 g of methane

Qus 5.

Calculate % by mass of a H_2O_2 Solution that is 67.2 by volume

a). 244

b). 20.40

c). 13.60

d). 17.60

MATHS

Qus 1.

$$\int \frac{\sqrt{\tan x}}{\sin x \cdot \cos x}$$

Qus 2.

$\tan(\pi \cos\theta) = \cot(\pi \sin\theta)$ then $\sin\left(\frac{\pi}{4} + \theta\right)$

a). $\frac{1}{2}$

b). $\frac{1}{\sqrt{2}}$

c). $\frac{1}{4}$

d). $\frac{1}{2\sqrt{2}}$

Qus 3.

$$\int \frac{(x^4+1)}{x(x^2+1)^2}dx = A\log\left|x\right| + \frac{B}{1+x^2} + C \text{ then } A - B$$

a). 0

b). 1

c). 2

d). - 1

Qus 4.

The circumference of the triangle formed by line $xy + zx + zy + 9 = 0$ of $x + y + z = 0$ is

a) $(-2, -2)$

b) $(0, 0)$

c) $(-1, -1)$

d) $(-1, -2)$

Qus 5.

The angle between the lines whose direction cosines satisfy the equations

$$l + m + n = 0 \quad \text{and} \quad m^2 + n^2 - l^2 = 0$$

(A) 30°
(B) 45°
(C) 60°
(D) 90°

PHYSICS

Qus 1.

A body is projected vertically upward with a velocity of $20\ \text{m/s}$. What is the maximum height reached? (Take $g = 10,\ \text{m/s}^2$)

Options:
A. 10 m
B. 20 m
C. 30 m
D. 40 m

Qus 2.

A capacitor of capacitance $10\mu\ \text{F}$ is connected to a 100 V battery. What is the energy stored in the capacitor?

Options:
A. 0.05 J
B. 0.1 J
C. 0.5 J
D. 1 J

Qus 3.

A particle moves in a circular path with constant speed. What is the direction of its acceleration?

Options:

A. Tangent to the path

B. Radially outward

C. Radially inward

D. Zero

Overall Paper Analysis (April 26)

- The MHT-CET 2025 April 25 exam was moderate to difficult.
- The Mathematics portion was lengthy and the Physics section was moderately difficult while Chemistry was easy.
- The overall paper level is the same as compared to previous shifts.
- Overall, the paper was the same with respect to the last year 2024 exam.
- **Subject-wise difficulty (from highest to lowest):**
  - **Mathematics > Physics > Chemistry**

Questions asked from below given important topics

Physics:

- Rotational Dynamics
- Projectile
- Capacitance

Maths:

- Integration
- Parabola
- Metrix
- Area under the curves

Chemistry:

- Solid state
- Hydrogen
- D- block
- Magnetic moment

Physics Analysis

- The overall difficulty level of the Physics section was moderate difficult.
- The Physics section was lengthy and consisted of application based questions.
- The Physics section was relatively slightly easy as compared to Mathematics and harder than Chemistry.

Questions were asked about the following Topics:

- Rotational Dynamics
- Projectile
- Capacitance

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Maths Analysis

- The Mathematics section was lengthy.
- The Mathematics section was relatively difficult compared to the Chemistry and Physics section.
- The mathematics section was difficult as compared to last year and focused more on calculus based questions.
- The difficulty level of Maths is same as compared to previous shifts
- Overall, the mathematics section was lengthy and difficult.

Questions asked from below given important topics:

- Integration
- Parabola
- Metrix
- Area under the curves

Chemistry Analysis

- The Chemistry Section was easiest in all three subjects.

- Chemistry is same as that of last year
- The questions are theory based and asked directly from Maharashtra State board textbook and NCERT .
- Chemistry was scoring from all the three subjects.

Questions were asked about the following Topics:

- Solid state
- Hydrogen
- D- block
- Magnetic moment

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.

Few Memory-Based Questions (April 27, 2025)

PHYSICS

Qus 1.

Question: A particle moves along a straight line with a velocity given by $v = 5 + 2t$. What is the acceleration of the particle at $t = 3$ seconds?

Options:

A) $5\ \mathrm{m/s^2}$

B) $2\ \mathrm{m/s^2}$

C) $11\ \mathrm{m/s^2}$

D) $7\ \mathrm{m/s^2}$

Qus 2.

Question: Two point charges $+3\mu C$ and $-5\mu C$ are placed 10 cm apart in air. What is the electrostatic force between them?

Options:
A) 13.5 N (attractive)
B) 13.5 N (repulsive)
C) 1.35 N (attractive)
D) 1.35 N (repulsive)

Overall Paper Analysis (April 27)

- The MHT-CET 2025 April 25 exam was moderately difficult.
- The Mathematics portion was time consuming and lengthy and the Physics section was moderately difficult while Chemistry was easy.
- The overall paper level is the same as compared to previous shifts.
- Overall, the paper was the same with respect to the last year 2024 exam.
- **Subject-wise difficulty (from highest to lowest):**
  - **Mathematics > Physics > Chemistry**

Questions asked from below given important topics

Physics:

- Equation of motion
- Electrostatics

Maths:

- Integration
- Straight lines
- Ellipse
- Applications of differentiation
- Area under the curves

Chemistry:

- Redox reaction
- Inductive effect
- D- block
- Magnetic moment

Physics Analysis

- The overall difficulty level of the Physics section was moderate difficult.
- The Physics section was lengthy and consisted of application based questions.
- The Physics section was relatively slightly easy as compared to Mathematics and harder than Chemistry.

Questions were asked about the following Topics:

- Equation of motion
- Electrostatics

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Maths Analysis

- The Mathematics section was lengthy.
- The Mathematics section was relatively difficult compared to the Chemistry and Physics section.
- The mathematics section was difficult as compared to last year and focused more on calculus based questions.
- The difficulty level of Maths is same as compared to previous shifts
- Overall, the mathematics section was lengthy and difficult.

Questions asked from below given important topics:

- Integration
- Straight lines
- Ellipse

- Applications of differentiation

Chemistry Analysis

- The Chemistry Section was easiest in all three subjects.
- Chemistry is same as that of last year
- The questions are theory based and asked directly from NCERT textbooks.
- Chemistry was scoring from all the three subjects.

Questions were asked about the following Topics:

- Redox reaction
- Inductive effect
- D- block
- Magnetic moment

This analysis is based on memory-based information provided by students who attended the exam. Real accurate analysis may vary and will be provided when the official question paper is released by the MHT-CET.