Banaras Hindu University

Question Paper Name: 489 14th May 2019 Shift 1

Subject Name: 489

Creation Date: 2019-05-14 13:50:13

Duration: 120 **Total Marks:** 360 **Display Marks:** Yes **Share Answer Key With Delivery** Yes

Engine:

Actual Answer Key:

Yes

M.Sc. in Environmental Science

Group Number:

Group Id: 54310752

Group Maximum Duration: 0 **Group Minimum Duration:** 120 Revisit allowed for view?: No Revisit allowed for edit?: No **Break time:** 0 **Group Marks:** 360

Section A Basic Env.

Section Id: 54310765 **Section Number:** 1 **Section type:** Online **Mandatory or Optional:** Mandatory **Number of Questions:** 30 30 **Number of Questions to be attempted: Section Marks:** 90 **Display Number Panel:** Yes **Group All Questions:** No

Sub-Section Number:

Sub-Section Id: 54310768 **Question Shuffling Allowed:** Yes

Question Number: 1 Question Id: 5431075672 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

In which of the following groups all are autotrophs?

Options:

Spinach, Mushroom, Tomato, Yeast

Tulsi, Algae, Cuscuta, Mushroom 3 Algae, Spinach, Tomato, Banana 4 Algae Mushroom, Banana, Mango Question Number: 2 Question Id: 5431075673 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Which form of the coal has highest calorific value? 1. Peat Bituminous Lignite 4 Anthracite Question Number: 3 Question Id: 5431075674 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question The Environment (Protection) Act came into force in: **Options:** 1988 1986 1984 1987 Question Number: 4 Question Id: 5431075675 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Which of the following is **not** a water-borne disease?

1. Typhoid
2. Jaundice
3. Cholera
4. Malaria
Question Number: 5 Question Id: 5431075676 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1 Ougstion Label: Multiple Choice Ougstion
Question Label: Multiple Choice Question
Brown lung disease (Byssinosis) is caused by :
Options:
1. Coal dust
2. Cotton fiber
3. Talc
4. Sugarcane fiber
Question Number: 6 Question Id: 5431075677 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Ecesis is defined as:
Options:
Development of bare area
2. Process of establishment of a migrant in a new place
3. Migration of reproductive structure to a barren area
4. Increase in number of species
Question Number: 7 Question Id: 5431075678 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1

 ${\tt Question\ Label: Multiple\ Choice\ Question}$

Rate of change in number of species per unit change in habitat is known as :
Options:
1. Alpha diversity
2. Beta diversity
3. Gamma diversity
4. Ecosystem diversity
Question Number: 8 Question Id: 5431075679 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Full form of IUCN is:
Options: International Union for Conservation of Nature 1.
2. International Unit to Conserve the Nation
3. International Union for Conservation of Nature and Natural Resources
4. International Union for Communication between Nations
Question Number: 9 Question Id: 5431075680 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Species likely to become endangered in the near future are known as:
Options:
Endangered species 1.
2. Threatened species
3. Vulnerable species
A. Rare species
Question Number: 10 Question Id: 5431075681 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Question Label : Multiple Choice Question
Simlipal National Park is situated in :
Options:
1. Orissa
2. Karnataka
3. Sikkim
Assam 4.
Question Number: 11 Question Id: 5431075682 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Photochemical smog is also known as :
Options:
1. Los Angeles Smog
2. London Smog
3. Industrial Smog
4. Sulphurous Smog
Question Number: 12 Question Id: 5431075683 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Global warming potential is calculated by relating with:
Options: 1. CO ₂
$_{2.}$ CH_4
3. CO
$_{4.}$ N_2O

Question Number: 13 Question Id: 5431075684 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Climax community results from :
Options:
1. Cohabilitation
2. Stratification
3. Succession
4. Competition
Question Number: 14 Question Id: 5431075685 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Aerosol is:
Options:
Carbon particles of microscopic size
2. Dispersion of small solid or liquid particles in gaseous medium
3. Fine particles of ash
4. Diffused liquid particles of ash
Question Number: 15 Question Id: 5431075686 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks : 3 Wrong Marks : 1 Question Label : Multiple Choice Question
Algal bloom is an indicator of :
Options:
Water pollution due to eutrophication
2. Water pollution due to pesticides
3. Water pollution due to metals
4. Soil pollution

Overtion Number 116 Overtion Id 15/21075687 Overtion Type 1 MCO Ontion Shuffling 1 Very Display Overtion Number 1 Very
Question Number: 16 Question Id: 5431075687 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Earthquake is measured in :
Options:
Richter scale
2. Mho scale
Decible 3.
4. Hertz
Question Number: 17 Question Id: 5431075688 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks : 3 Wrong Marks : 1 Question Label : Multiple Choice Question
The ore with highest percentage of silver is:
Options:
1. Argentite
2. Polybasic
3. Proustite
4. Pyrargyrite
Question Number: 18 Question Id: 5431075689 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Acid rain is characterized by a pH value of :
Options:
1. 7.0
2. < 5.6
3. < 7.0

4. < 6.5

Question Number: 19 Question Id: 5431075690 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which of the following is important for green manuring?

Options:

1. Wheat

Rice

Sesbania

4 Cauliflower

Question Number: 20 Question Id: 5431075691 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which of the following pair is correctly matched?

Options:

Sulphur dioxide and Teeth damage

- Fluoride pollution and Bhopal Gas Tragedy
- Methyl isocyanate and Acid rain
- 4 Ozone depletion and Skin cancer

Question Number: 21 Question Id: 5431075692 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which of the following represents the sedimentary type of nutrient cycle?

Options:

Sulphur

Phosphorus

Nitrogen Question Number: 22 Question Id: 5431075693 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question The world's most problematic aquatic weed is: **Options:** Water hyacinth Parthenium Cactus Calotropis Question Number: 23 Question Id: 5431075694 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question The transformation of pond to forest community is an example of : **Options:** Xerarch succession Mesarch succession Hydrarch succession 4. All of the three Question Number: 24 Question Id: 5431075695 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question

Replacement of community by external factors is known as:

Secondary succession Allogenic succession 3. Autotrophic succession 4 Heterotrophic succession Question Number: 25 Question Id: 5431075696 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question Rate of storage of organic matter not used by hetrotrophs is known as: **Options:** Gross primary productivity Net community productivity Net primary productivity Secondary productivity Question Number: 26 Question Id: 5431075697 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question Plant species that tolerate high light intensity is known as: **Options:** Scrophytes Heliophytes Xerophytes Psamophytes Question Number: 27 Question Id: 5431075698 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Question Label : Multiple Choice Question
Genetically different plants referred to :
Options:
Ecads 1.
2. Ecotypes
3. Ecophenes
4. Ecoregions
Question Number: 28 Question Id: 5431075699 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
A keystone species is a species that has :
Options:
a disproportionately large effect on its community
a disproportionately small effect on its community
3. a neutral role on its community
4. None of the three
Question Number: 29 Question Id: 5431075700 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Biodiversity includes :
Options: Species diversity 1.
2. Genetic diversity
3. Ecosystem diversity
4. All of the three

Question Number : 30 Question Id : 5431075701 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Phytoplankton are:

Options:

- 1. Photosynthetic organisms
- Non-photosynthetic organisms
- 3. Parasites
- 4 Symbionts

Section A Chemistry

Section Id: 54310766

Section Number: 2 **Section type:** Online **Mandatory or Optional:** Mandatory

Number of Questions: 60 60 **Number of Questions to be attempted:** 180 **Section Marks:** Yes **Display Number Panel: Group All Questions:** No

Sub-Section Number:

Sub-Section Id: 54310769 **Question Shuffling Allowed:** Yes

Question Number: 31 Question Id: 5431075702 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The anion which contains bridging oxygen is:

$$1 MnO_4$$

2.
$$Cr_2O_7^{2-}$$
3. CO_3^{2-}
4. SO_4^{2-}

$$_{3}$$
 CO_{3}^{2-}

$$_{4}$$
 SO_{4}^{2-}

Question Number: 32 Question Id: 5431075703 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
The number of neutrons in ${}^{40}Ca^{2+}$ are :
Options:
1. 40
2. 22
3. ²⁰
4. 18
Question Number: 33 Question Id: 5431075704 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
The gas which gives green colour with a solution of $K_2Cr_2O_7$, is:
Options: CO ₂
2. NO
3. ^{SO} 2
4. CO
Question Number: 34 Question Id: 5431075705 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Wilson disease is caused by the toxicity due to: Options: 1. Cd 1. Cd
1. Hg

з. *Pb*

1 Cu

Question Number : 35 Question Id : 5431075706 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks : 3 Wrong Marks : 1

Question Label : Multiple Choice Question

The compound known as 'Prussian blue' is:

Options:

 $Fe_2[Fe(CN)_6]$

Fe4[Fe(CN)6]3

 $K_3[Fe(CN)_6]$

 $_4$ $K_4[Fe(CN)_6]$

Question Number: 36 Question Id: 5431075707 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The mineral lautarite is:

Options:

 CaF_2

 $_{2}$ $Fe_{2}O_{3}$

CaIO₃

 $Cu(OH)_2$

Question Number: 37 Question Id: 5431075708 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The compound possessing maximum π -bonds is :

	N_2
-1-	

3. PC1₅

Question Number : 38 Question Id : 5431075709 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Diopside is:

Options:

ZrSiO₄

 $_2$ ZrSO $_4$

BeSiO₄

Question Number : 39 Question Id : 5431075710 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The compound which occurs in nature as corundum is:

Options:

$$\alpha - Al_2O_3$$

4.
$$Al_4C_3$$

Question Number: 40 Question Id: 5431075711 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Question Label : Multiple Choice Question
Raschig synthesis is related with the preparation of :
Options:
1. $KMnO_4$
2. CrO ₂ Cl ₂
$K_2Cr_2O_7$
$_{4.}$ N_2H_4
Question Number: 41 Question Id: 5431075712 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Maximum bond order is, in :
Options:
1. NO ⁺
2. CO ⁺
3. NO
F_2
Question Number: 42 Question Id: 5431075713 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Rutile is isomorphous with:
Options:
1. PbO
2. SnO ₂
$_{3.}$ Fe_3O_4
4. $SnCl_4$

Question Number: 43 Question Id: 5431075714 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1 Overstion Label: Multiple Choice Overstion
Question Label : Multiple Choice Question
The ion which acts as a probe of K^+ , is:
Options:
1. Tl ⁺
$2. Sn^{2+}$
3. In ⁺
$4. Cs^+$
Question Number: 44 Question Id: 5431075715 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks : 3 Wrong Marks : 1 Question Label : Multiple Choice Question
The characteristic feature of UO ₂ ²⁺ compound is:
Options:
1. Nuclear fuel
2. Isotopic tracer
3. Fluorescence
4. Fission material
Question Number: 45 Question Id: 5431075716 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
XeF_6 acts as:
Options: $F^{-} \text{ donor}$ 1.
2. shift reagent
F acceptor

4. explosive Question Number: 46 Question Id: 5431075717 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question In sea water, Cl_2 occurs as: **Options:** 1. CaCl₂ NaCl 3. CsCl 4 BaCl₂ Question Number: 47 Question Id: 5431075718 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question The geometry of ozone gas is: **Options:** 1 linear 2 planar bent 4. tetrahedral Question Number: 48 Question Id: 5431075719 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question CO₂ is responsible for global warming owing to : **Options:** absorption of UV radiation

emission of UV radiation

 $_{\rm 3}$ absorption of IR radiation

4 Thermal emission

Question Number : 49 Question Id : 5431075720 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The compound used for the preparation of a nitrogeneous fertilizer is:

Options:

CaSO₄
$$.\frac{1}{2}H_2O$$

$$Ca_3(PO_4)_2$$

Question Number : 50 Question Id : 5431075721 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Poisoning due to KCN is controlled by the drinking of a solution of :

Options:

1. LiCl

2. FeCl₃

3. BaCl₂

4 AlCl₃

Question Number: 51 Question Id: 5431075722 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The one used as thermometer liquid is:

- 1. IC1

- 4. Ge

Question Number: 52 Question Id: 5431075723 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The one which reduces CaO to Ca at higher temperature is:

Options:

- 1. Cr
- 3. Coke

Question Number: 53 Question Id: 5431075724 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

 Na^+ , Mg^{2+} , Al^{3+} and Si^{4+} ions are isoelectronic. The values of ionic radii of

these ions would be in the order:

Options:

1.
$$Na^+ > Mg^{2+} > Al^{3+} > Si^{4+}$$

2.
$$Na^+ < Mg^{2+} < Al^{3+} < Si^{4+}$$

$$_{3.}$$
 $Na^{+} > Mg^{2+} > Al^{3+} < Si^{4+}$

$$_{4}$$
 $Na^{+} < Mg^{2+} > Al^{3+} > Si^{4+}$

Question Number: 54 Question Id: 5431075725 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Question Label : Multiple Choice Question
The ion with the strongest polarizing capacity is:
Options:
1. Ba^{2+}
2. Cs ⁺
Ca^{2+}
4. Li^+
Question Number: 55 Question Id: 5431075726 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
The electron affinity of N , O , S , Cl are such that :
Options:
$_{1.} N < O < S < Cl$
2. Cl < S < O < N
$_{3.}$ $O < N < Cl < S$
$O \approx Cl < N \approx S$
Question Number: 56 Question Id: 5431075727 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Amongst the following metals, which one forms peroxide on heating in excess
oxygen ?
Options:
Lithium 1.
2. Sodium
Barium 3.

4. Aluminium

Question Number: 57 Question Id: 5431075728 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Hypervalent ion is:

Options:

1. SO₃²⁻

2. SO_4^{2-}

, PO4

4. ClO₄

Question Number: 58 Question Id: 5431075729 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

There is $p\pi - d\pi$ multiple bonding in :

Options:

, NO

2 CO

, NO

4. CS₂

Question Number: 59 Question Id: 5431075730 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

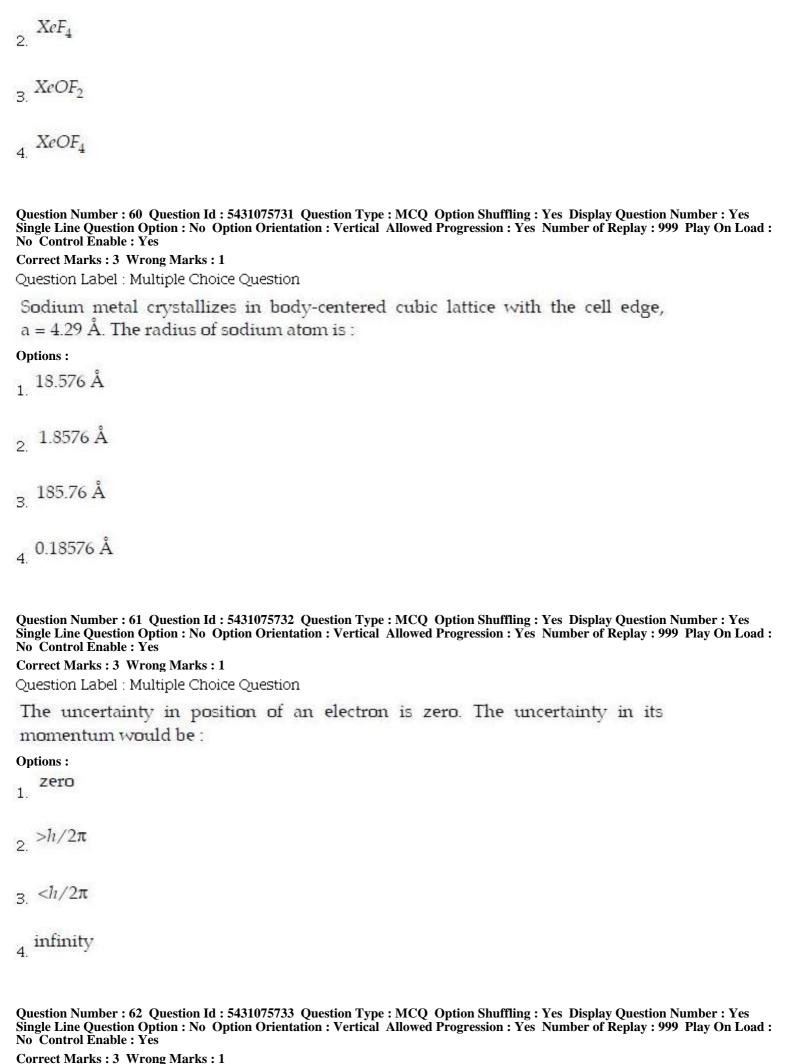
Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Which one of the molecules is sp^3d hybridized?

Options:

1. XeO₃



Question Label : Multiple Choice Question

The strength of hydrogen bond ranges from :
Options:
1. 2-8 kcal
2. 20-40 kcal
3. 40-60 kcal
4. > 80 kcal
Question Number: 63 Question Id: 5431075734 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Which one of the following represents a set of soft acid and soft base?
Options:
1. Cu^+ , H_2O
Au^{2+},CO
$_{3.}$ Ag^+ , R_2O
$_{4.}$ Pd^{2+} , F^{-}
Question Number: 64 Question Id: 5431075735 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Which one of the following ions is paramagnetic?
Options:
1. La^{3+}
2. Lu^{3+} 3. Yb^{2+}
3. Yb^{2+}
$4. Sm^{3+}$

Question Number: 65 Question Id: 5431075736 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

The lanthanide contraction is due to:

Options:

- filling of 5d before 4f
- filling of 4d before 4f
- 3. filling of 4f before 5d
- $_4$ filling of 4f before 4d

Question Number: 66 Question Id: 5431075737 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The stability order of +2 oxidation state is:

Options:

$$Eu^{2+} > Yb^{2+} > Sm^{2+}$$

2.
$$Sm^{2+} > Yb^{2+} > Eu^{2+}$$

3.
$$Yb^{2+} > Sm^{2+} > Eu^{2+}$$

$$_4 Eu^{2+} > Sm^{2+} > Yb^{2+}$$

Question Number: 67 Question Id: 5431075738 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which one of the following transition elements shows the highest oxidation

state?

F

Question Number : 68 Question Id : 5431075739 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The asymmetric nature of visible absorption band of $[Ti(H_2O)_6]^{3+}$ is due to :

Options:

- Laporte's allowed transition
- Laporte's forbidden transition
- Dynamic Jahn-Teller effect
- Intensity stealing transition

Question Number : 69 Question Id : 5431075740 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Among the following complexes, optical activity is possible in:

Options:

$$[Co(H_2O)_2(NH_3)_2Cl_2]$$

$$[Co(NH_3)_4(NO_2)Cl]^+$$

$$[Cr(H_2O)_4Cl_2]^+$$

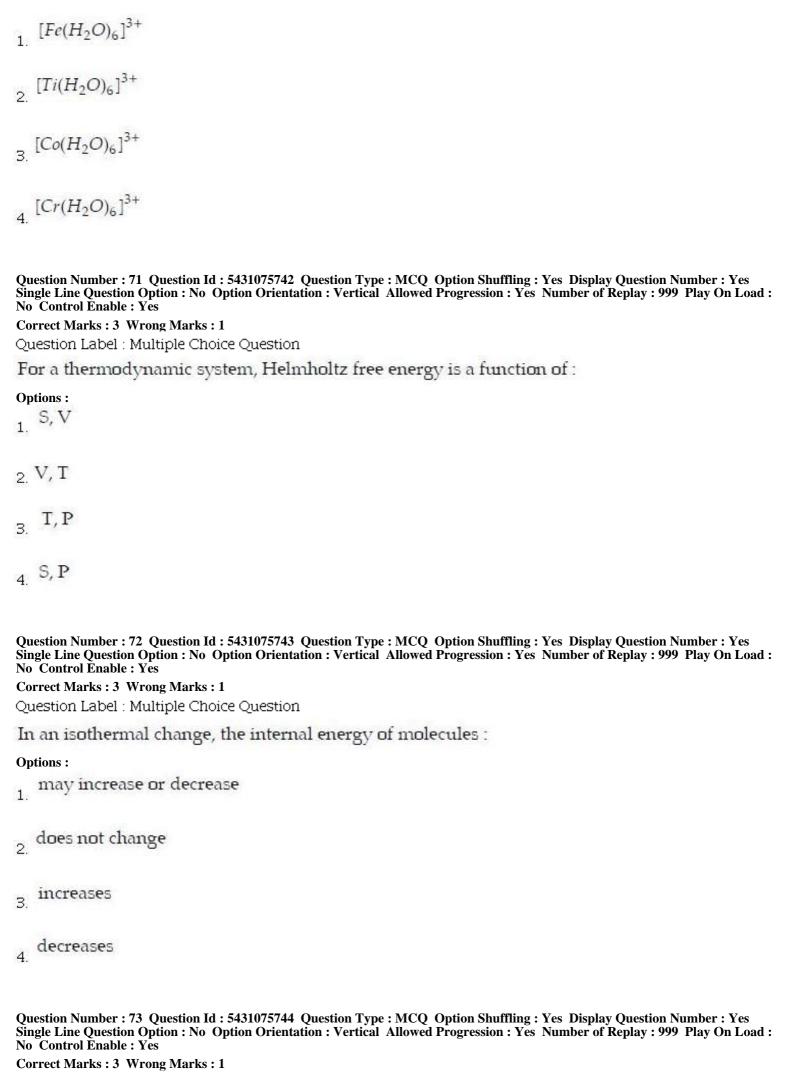
Question Number: 70 Question Id: 5431075741 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The most acidic aqua ion is:



Question Label : Multiple Choice Question

A Carnot cycle operates on a working substance between two reservoirs at temperature T_1 and T_2 , where $T_1 > T_2$. During each cycle, an amount of heat Q_1 is extracted from the reservoir at T_1 and an amount Q_2 is delivered to the reservoir at T_2 . Which of the following statement is *incorrect*?

Options:

Work done in one cycle is $Q_1 - Q_2$

$$\frac{Q_1}{T_1} = \frac{Q_2}{T_2}$$

Entropy of the hotter reservoir decreases

Entropy of the universe (consisting of the working substance and two reservoirs) increases

Question Number: 74 Question Id: 5431075745 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The Gibbs phase rule is:

Options:

$$F = P - C + 2$$

$$F = C - P + 2$$

3.
$$P = F - C + 2$$

$$P = F - C + 1$$

Question Number: 75 Question Id: 5431075746 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Ozonolysis of 1-methyl cyclohexene will give:

Options:

6-Oxoheptanol

2 Methyl hexanone

3. 1, 6-Heptandiol
4. 2-Methylcyclohexanone

Question Number: 76 Question Id: 5431075747 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

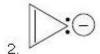
Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Which one of the following compounds will be aromatic?

Options:









Question Number: 77 Question Id: 5431075748 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Phenol reacts with formaldehyde to give Bakelite in the presence of a base, is

known as:

Options:

Gattermann reaction

Houben-Hoesch reaction

Phthalein reaction

Laderer-Manase reaction

Question Number: 78 Question Id: 5431075749 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

```
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Which one of the following compounds will give iodoform test?
Options:
1. CH<sub>3</sub>OH
   CH_3CH(OH)CH_3
   CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>OH
   C_6H_5CH_2OH
Question Number : 79 Question Id : 5431075750 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load :
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Ionic conductance at infinite solution of Ag^+ and NO_3^- ions are 57.6 and 62.4,
respectively. What will be the equivalent conductance of AgNO3 at infinite
dilution at the same temperature?
Options:
   4.8
2. 57.6
   120.0
62.4
Question Number: 80 Question Id: 5431075751 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Which one of the following sentences is a wrong statement?
Options:
   Surface tension and viscosity of liquids generally decrease with rise in
   temperature
Surface active agents lower the surface tension of liquids
```

When cohesion force is greater than adhesion force, the liquid wets the 3. surface of the solids in its contact 4 Surface tension of a liquid reduces the area of the surface to a minimum Question Number: 81 Question Id: 5431075752 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question When concentration of a reactant is doubled, the rate of reaction becomes four times. The order of reaction is: **Options:** 3.0 Question Number: 82 Question Id: 5431075753 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question The p-type semiconductor is obtained when Si is doped with: **Options:** 4. As Question Number: 83 Question Id: 5431075754 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes

Question Label: Multiple Choice Question

A crystal having unit cell dimensions $a \neq b \neq c$, $\alpha = \beta = \gamma = 90^{\circ}$ is:

Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

Options:

No Control Enable: Yes

tetragonal 1.	
2. orthorhombic	
3. cubic	
4. hexagonal	
Question Number: 84 Question Id: 5431075755 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question	ľes Load
The gases which show heating effect during Joule-Thomson expansion are those with:	
Options: very low inversion temperature 1.	
2. very high inversion temperature	
3. moderate inversion temperature	
greater attraction between their molecules	
Question Number: 85 Question Id: 5431075756 Question Type: MCQ Option Shuffling: Yes Display Question Number: Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question	Yes Load
In a phase diagram for pure water, P is a point where ice, water and vapour co- exist in equilibrium. What is the degree of freedom at P?	
Options:	
1. Zero	
2. 1	
3. ²	
4. 3	
Question Number: 86 Question Id: 5431075757 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On No Control Enable: Yes	res Load

Question Label : Multiple Choice Question
Cannizzaro reaction is not given by:
Options:
1. Formaldehyde
2. Acetaldehyde
3. Benzaldehyde
4. Trimethylacetaldehyde
Question Number: 87 Question Id: 5431075758 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Liquid HF undergoes self ionization to give a liquid that contains:
Options: $[H_2F] = \begin{bmatrix} H_2F \end{bmatrix}$
2. [HF ₂] e
H^{\oplus}
4. F •
Question Number: 88 Question Id: 5431075759 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Which reagent would you use to convert 2-pyridone to 2-chloropyridine?
Options:
1. POCl ₃
2. <i>PCl</i> ₃
3. ^{CCl} ₄
4. <i>HC1</i>

Question Number: 89 Question Id: 5431075760 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question LPG (household cooking gas) is mainly a mixture of : **Options:** Acetylene + O_2 Methane + Ethane Propane + Butane Acetylene + H_2 Question Number: 90 Question Id: 5431075761 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question DDT is prepared by the reaction of chlorobenzene with (in the presence of conc. H_2SO_4): **Options:** Chlorine Chloroform Chloral Carbon tetrachloride

Section B Geology

Section Id: 54310767 **Section Number:** 3 **Section type:** Online **Mandatory or Optional:** Optional **Number of Questions:** 30 **Number of Questions to be attempted:** 30 90 **Section Marks: Display Number Panel:** Yes **Group All Questions:** No

Sub-Section Number: Sub-Section Id: 54310770 **Question Shuffling Allowed:** Yes Question Number: 91 Question Id: 5431075762 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Exfoliation is a form of : **Options:** Chemical weathering Biological weathering Physical weathering Mass wasting Question Number: 92 Question Id: 5431075763 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question The dripstones hanging from the top of the limestone caves are called: **Options:** Geodes Stalactites Stalagmites Cave pillar Question Number: 93 Question Id: 5431075764 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable : Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question The average value of Poisson ratio is:

Options: 0.50

```
0.25
4 1.50
Question Number: 94 Question Id: 5431075765 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Intrusive igneous contacts are indicative of :
Options:
An angular unconformity
A disconformity
   A blended unconformity
4 A non-conformity
Question Number: 95 Question Id: 5431075766 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Actinolite is typical mineral of :
Options:
   Blue schist facies
   Green schist facies
3 Amphibolite facies
4 Hb-Homfelse facies
Question Number: 96 Question Id: 5431075767 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Prismatic habits are characteristics of :
```

1. Ionosilicate
2. Nesosilicate
3. Phyllosilicate
4. Metasilicate
Question Number: 97 Question Id: 5431075768 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question The Moh's scale of hardness is a/an:
Options: Logarithmic scale 1.
2. Arithmetic scale
3. Arbitrary scale
Geometric scale 4.
Question Number: 98 Question Id: 5431075769 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Spinel is:
Options:
1. Mg-Al silicate
Mg-Al oxide
3. Mg, Fe, Al-silicate
4. Mg, Fe, Al-oxide
Question Number: 99 Question Id: 5431075770 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1

 ${\tt Question\ Label: Multiple\ Choice\ Question}$

Which of the following is an oxide of titanium and iron ?
Options:
1. Rutite
2. Ilmenite
Brookite 3.
4. Anatase
Question Number: 100 Question Id: 5431075771 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Garnet crystallizes in :
Options: Cubic system
Tetragonal system
3. Orthogonal system
4. Hexagonal system
Question Number: 101 Question Id: 5431075772 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Which of the following system has all closed form ?
Options: Trigonal
Monoclinic 2.
3. Cubic
4. Triclinic

Question Number: 102 Question Id: 5431075773 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Which of the following has three axes of 4-fold symmetry?
Options:
1. Rutile
2. Gypsum
3. Barytes
4. Galena
Question Number: 103 Question Id: 5431075774 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Ophitic texture is frequently found in :
Options:
Granite 1.
Dunite 2.
3. Dolerite
4. Syenite
Question Number: 104 Question Id: 5431075775 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Which of the following is the glassy modification of acidic lava?
Options:
1. Tektite
2. Tachylite
3. Obsidian
4. Limburgite

Question Number: 105 Question Id: 5431075776 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Match the following and choose the *correct* answer:

A. Acidic Monzonite

B. Ultrabasic Gabbro

Intermediate 3 Granite

D. Basic Peridotite

Options:

A-3 B-4 C-1 D-2

A-4 B-1 C-3 D-2

3. A-3 B-4 C-2 D-1

A-2 B-3 C-4 D-1

Question Number: 106 Question Id: 5431075777 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Alternate deposition of fine and coarse grained sediments gives rise to :

Options:

Torrential bedding

Graded bedding

Cross bedding

Festoon bedding

Question Number: 107 Question Id: 5431075778 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

A coarse grained biogenic limestone is termed as :

Biomicrite 1.
2. Biosparite
3. Oomicrite
Oosparite 4.
Question Number: 108 Question Id: 5431075779 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Petrographically the turbidite sequence may occur in :
Options: Graywackes alone 1.
2. Proto-quartzites alone
Graywackes, proto-quartzite and layered gabbros 3.
Graywackes and proto-quartzite
Question Number: 109 Question Id: 5431075780 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Metamorphism involving the combined effect of uniform pressure and heat is
described as :
Options:
1. Dynamothermal metamorphism
2. Contact metamorphism
Plutonic metamorphism
Cataclastic metamorphism 4.

C . 1		
Correct Marks : 3 Wrong Marks : 1 Question Label : Multiple Choice Ques	stion	
		n inspite of the resistance of a solid
medium are described as :	,	
Options:		
Idioblastic		
Xenoblastic		
Granoblastic		
4. Crystalloblastic		
Question Number: 111 Question Id: 543107 Single Line Question Option: No Option Or No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Ques	rientation : Vertic	Type: MCQ Option Shuffling: Yes Display Question Number: Yes al Allowed Progression: Yes Number of Replay: 999 Play On Load:
Match the following and choose		answer:
A. Sanidinite facies	1.	Chlorite
B. Blueschist facies	2.	Lawsonite
C. Greenschist facies	3.	Sandine
D. Zeolite facies	4.	Laumonite
Options:		
A 2 P 2 C 4 D 1		
A-2 B-3 C-4 D-1		
1. A-2 B-3 C-4 D-1 2. A-1 B-4 C-2 D-3		

Question Number: 112 Question Id: 5431075783 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The best example of magnetic segregated ore is:

Iron deposits
2. Bauxite deposits
Phosphate deposits 3.
4. Chromium deposits
Question Number: 113 Question Id: 5431075784 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Kudremukh in Karnataka is famous for :
Options: Lead deposits 1.
Magnetite deposits
3. Copper deposits
4. Ilmenite deposits
Question Number: 114 Question Id: 5431075785 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
The study of trace fossil is known as:
Options: Synecology 1.
2. Ichthyology
Paleoecology 3.
Ichnology 4.
Ouestion Number: 115 Ouestion Id: 5431075786 Ouestion Type: MCO Option Shuffling: Yes Display Ouestion Number: Yes

Question Number: 115 Question Id: 5431075786 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Graptolite belong to the class:
Options:
Actinozoa 1.
2. Scyphozoa
3. Hydrozoa
Ctenophora 4.
Question Number: 116 Question Id: 5431075787 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks : 3 Wrong Marks : 1 Question Label : Multiple Choice Question
The body of trilobite is divided into:
Options:
1. Three parts
2. Two parts
3. Three parts by means of two furrows
Two parts by means of a furrow
Question Number: 117 Question Id: 5431075788 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Gastropods having conical shape and long acute spire are described as:
Options:
1. Turreted
2. Globular
3. Turbinate

Convolute Question Number: 118 Question Id: 5431075789 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question The correlation of Precambrian terrain is mostly based on : **Options:** Fossils Lithology Crustal upliftment Eustatic changes Question Number: 119 Question Id: 5431075790 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question A community of interrelated organism inhabiting an area is described as: **Options:** Biocenose Biotype Thenotype Thenatocoenose Question Number: 120 Question Id: 5431075791 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Which of the following is the oldest magnetic epoch? **Options:**

Gilbert reversed

Matuyama reversed

- 3 Brunhes normal
- Gauss normal

Section B Life Science

Section Id: 54310768

Section Number :4Section type :OnlineMandatory or Optional:OptionalNumber of Questions:30Number of Questions to be attempted:30Section Marks:90Display Number Panel:Yes

Sub-Section Number: 1

Sub-Section Id: 54310771 **Question Shuffling Allowed:** Yes

Question Number: 121 Question Id: 5431075792 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Group All Questions:

Question Label: Multiple Choice Question

Which enzyme is known as molecular scissors?

Options:

- Ligase
- Restriction endonuclease
- Lipase
- 4 Polymerase

Question Number: 122 Question Id: 5431075793 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label: Multiple Choice Question

Primary precursor of I.A.A. is :

Options:

Tyrosine

```
Leucine
   Tryptophan
   Methionine
Question Number: 123 Question Id: 5431075794 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
During meiosis, crossing over takes place at:
Options:
   Leptotene
   Diplotene
   Zygotene
4. Pachytene
Question Number: 124 Question Id: 5431075795 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label: Multiple Choice Question
Edible part of apple is:
Options:
1. Mesocarp
   Endocarp
   Thalamus
4 Aril
Question Number: 125 Question Id: 5431075796 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label: Multiple Choice Question
The first transgenic plant was:
```

Pea 1.
2. Mustard
3. Cotton
4. Tobacco
Question Number: 126 Question Id: 5431075797 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Which of the following is Sulphur containing amino acid?
Options:
1. Glycine
2. Methionine
3. Aspartic acid
4. Asparagine
Question Number: 127 Question Id: 5431075798 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
An inverted pyramid of Biomass can be found in :
Options:
1. Grassland Ecosystem
2. Marine Ecosystem
3. Forest Ecosystem
4. Tundra
Question Number: 128 Question Id: 5431075799 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Connect Marks: 3. Wrong Marks: 1
Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question

Maiden hair fern is :
Options:
1. Pteris
2. Adiantum
3. Lycopodium
4. Dryopteris
Question Number: 129 Question Id: 5431075800 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
The fruit of coconut is an example of :
Options:
1. Capsule
2. Nut
3. Nutlet
4. Drupe
Question Number: 130 Question Id: 5431075801 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Coffee plant belongs to the family :
Options:
1. Apocyanaceae
2. Brassicaceae
Rubiaceae 3.
4. Solanaceae

Question Number: 131 Question Id: 5431075802 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Plant part used for extraction of Opium from Papaver somniferum is:
Options:
1. Unripe capsule
2. Ripe capsule
Mature leaves
4. Mature roots
Question Number: 132 Question Id: 5431075803 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Nitrogen fixation in Alnus roots is due to the presence of :
Options:
1. Azotobacter
2. Clostridium
3. Rhizobium
4. Frankia
Question Number: 133 Question Id: 5431075804 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label: Multiple Choice Question
Saffron is obtained from :
Options:
1. Cocos nucifera
2. Centella asiatica
3. Crocus sativus
4. Foeniculum vulgare

Question Number: 134 Question Id: 5431075805 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Columella is found in the Sporangium of :
Options:
1. Rhizopus
2. Spirogyra
3. Ulothrix
4. Phytophthora
Question Number: 135 Question Id: 5431075806 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Which of the following enzymes is thermostable?
Options:
ATP synthetase
1. The synthetise
2. Peroxidase
3. Taq polymerase
4. Lipase
Question Number: 136 Question Id: 5431075807 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
In which phase of cell cycle DNA becomes 4C from 2C?
Options:
1. S
1.
2. G1
3. Metaphase

4. Anaphase

Question Number: 137 Question Id: 5431075808 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Acrosomal vesicle in a mature sperm is derived from :

Options:

Endoplasmic reticulum

Golgi complex

Peroxisome

Mitochondria

Question Number: 138 Question Id: 5431075809 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

If a sample of DNA is found to have the base composition (mole ratios) of adenine, 40; thymine, 22; guanine, 21; and cytosine 17, which of the following conclusions will be most appropriate?

Options:

- The given DNA is a double stranded circular molecule
- 2 It is a linear double stranded molecule
- 3 It is a single stranded molecule
- 4 It has high melting point

Question Number: 139 Question Id: 5431075810 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

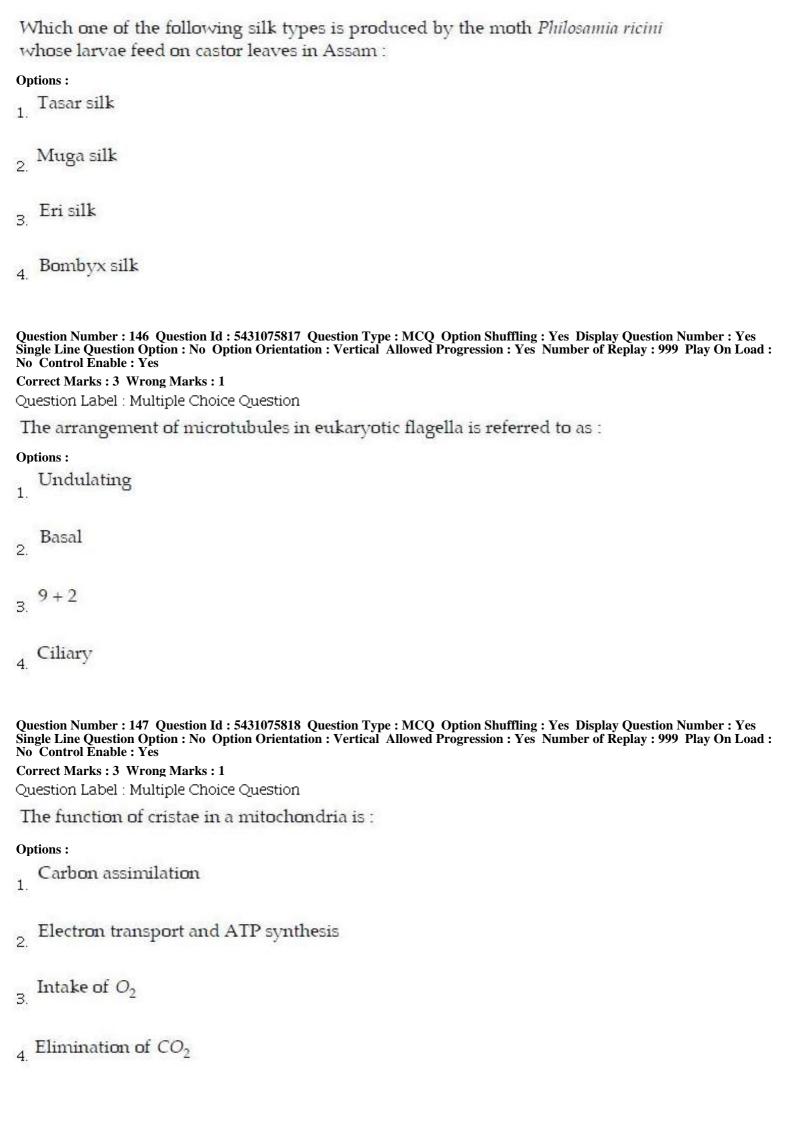
Circadian rhythm in our body is regulated by :

Options:

TSH

Melatonin Prostaglandins 4 ADH Question Number: 140 Question Id: 5431075811 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question Prokaryotic genetic system has: **Options:** DNA but no histones Both DNA and histones Neither DNA nor histones Either DNA or histones Question Number: 141 Question Id: 5431075812 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Lampbrush chromosomes are seen in : **Options:** 1 Prophase 2 Mitotic metaphase Mitosis Meiotic prophase Question Number: 142 Question Id: 5431075813 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Parental care by males is found in :

1. Hippocampus
2. Labeo
3. Anabas
4. Clarias
Question Number: 143 Question Id: 5431075814 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Tri-peptide consist of:
Options: 3 amino acids and 3 peptide bonds 1.
2. 2 amino acids and 3 peptide bonds
3. 3 amino acids and 2 peptide bonds
3 amino acids and 4 peptide bonds
Question Number: 144 Question Id: 5431075815 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Which one is complementary sequence of ATGCAATGCT?
Options:
TACGTTACGA
2. AGCATTGCAT
3. ATGCAATGCT
4. GCAATGCTAA
Question Number: 145 Question Id: 5431075816 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question



Question Number: 148 Question Id: 5431075819 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
The body tissue that consists largely of material located outside of cells is :
Options:
1. Extra cellular matrix
Epithelial tissue
3. Skeletal muscle
4. Smooth muscle
Question Number: 149 Question Id: 5431075820 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes Connect Marks 13, Wrong Marks 11
Correct Marks : 3 Wrong Marks : 1 Question Label : Multiple Choice Question
Histamine secreting cells are found in :
Options:
1. Connective tissue
2. Lungs
Muscular tissue 3.
4. Nervous tissue
Question Number: 150 Question Id: 5431075821 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Which of the following receptor types is <i>not</i> a membrane receptor?
Options:
Channel-linked receptor 1.
Steroid-hormone receptor 2.

Enzymatic receptor

G-protein coupled receptor

Section B Physics

Section Id: 54310769 **Section Number:** 5 **Section type:** Online **Mandatory or Optional:** Optional **Number of Questions:** 30 **Number of Questions to be attempted:** 30 **Section Marks:** 90 **Display Number Panel:** Yes **Group All Questions:** No

Sub-Section Number: 1

Sub-Section Id: 54310772 **Question Shuffling Allowed:** Yes

Question Number: 151 Question Id: 5431075822 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

In elastic collision, kinetic energy is:

Options:

conserved

_ not conserved

increases

decreases

Question Number: 152 Question Id: 5431075823 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The viscosity of an oil decreases when temperature:

Options:

is constant

1

```
decreases
   increases
  100°C
Question Number: 153 Question Id: 5431075824 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Oscillations are damped due to presence of :
Options:
    Linear motion
   Frictional force
    Restoring force
   Mechanical force
Question Number: 154 Question Id: 5431075825 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Einstein proposed the general theory of relativity in the year :
Options:
   1890
   1900
   1910
4. 1916
Question Number: 155 Question Id: 5431075826 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
```

Question Label : Multiple Choice Question

In which of the following frame of reference, the acceleration of the particles is zero in the absence of applied force ?
Options:
Inertial 1.
Non-inertial 2.
3. Cartesian
4. Non-Cartesian
Question Number: 156 Question Id: 5431075827 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
On increasing number density for a gas in a vessel, mean free path of a gas :
Options:
decreases 1.
2. increases
remains constant 3.
4. becomes double
Question Number: 157 Question Id: 5431075828 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
If different ideal gases are at the same temperature, pressure and have same
volume, then all gases have same :
Options:
1. density
number of molecules 2.
3. most probable speed

Question Number: 158 Question Id: 5431075829 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question Which of the following laws of thermodynamics defines entropy? **Options:** Zeroth law First law Second law Third law Question Number: 159 Question Id: 5431075830 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question In a Carnot engine, when heat is absorbed from the source, temperature of source: **Options:** increases decreases remains constant can not say Question Number: 160 Question Id: 5431075831 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label : Multiple Choice Question Temperature is a measure of :

internal energy per mole

Heat possessed by a body
2. Hotness or coldness
3. Potential energy
Thermal energy 4.
Question Number: 161 Question Id: 5431075832 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
In Wien's displacement law, the value of proportionality constant or Wien's
displacement constant is equal to :
Options:
$\frac{2.897 \times 10^{-3} \mathrm{mK}}{1.}$
$^{3.897} \times 10^{-3} \text{mK}$
$_{3.}$ $4.255 \times 10^{-3} \mathrm{mK}$
$_{4.}$ 5.255 × 10 ⁻³ mK
Question Number: 162 Question Id: 5431075833 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Which of the following sources gives best monochromatic light?
Options:
a candle 1.
a bulb
3. a mercury tube
4. a laser
Question Number: 163 Question Id: 5431075834 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Lloyd's mirror experiment establishes that light consists of :
Options:
1. Particles
2. Waves
neither particles nor waves
both particles and waves
Question Number: 164 Question Id: 5431075835 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Soap bubbles appear coloured due to the phenomenon of :
Options:
Interference 1.
2. Diffraction
3. Dispersion
Reflection 4.
Question Number: 165 Question Id: 5431075836 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Which of the following is conserved when light waves interfere?
Options:
1. Intensity
Amplitude 2.
3. Energy

Momentum

Question Number: 166 Question Id: 5431075837 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

In order to increase the resolving power of a telescope, it is necessary to :

Options:

increase the diameter of eye-piece

decrease the diameter of eye-piece

s increase the diameter of objective

decrease the diameter of objective

Question Number: 167 Question Id: 5431075838 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

Correct Marks : 3 Wrong Marks : 1

Question Label: Multiple Choice Question

For producing a broad central maximum by diffraction from a single slit:

Options:

slit must be narrow

slit must be broad

source must be narrow

source must be broad

Question Number: 168 Question Id: 5431075839 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

If the light is polarized by reflection then the angle between reflected and refracted light is:

Options:

1. π

```
3. <sup>2π</sup>
4 \pi/4
Question Number: 169 Question Id: 5431075840 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
Magnetic lines of force:
Options:
can not intersect at all
2 intersect at the neutral point
   intersect with in the magnet
  intersect at infinity
Question Number: 170 Question Id: 5431075841 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
The susceptibility of a diamagnetic substance:
Options:
  increases with temperature
  decreases with temperature
   does not vary with temperature
4 first decreases and then increases with increase in temperature
Question Number: 171 Question Id: 5431075842 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes
Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:
No Control Enable: Yes
Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
If the value of capacitance (C) in a series LCR circuit is decreased, the resonant
frequency:
```

1.	Not affected
2.	Increases
3.	Is reduced to zero
4.	Decreases
Sin No Co	estion Number: 172 Question Id: 5431075843 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes gle Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: Control Enable: Yes rrect Marks: 3 Wrong Marks: 1 testion Label: Multiple Choice Question
Iı	a semiconductor, the energy gap between valance band and conduction
b	and is nearly :
Op	tions:
1.	zero
2.	1 eV
3.	5 eV
4.	15 eV
Sin No Co	estion Number: 173 Question Id: 5431075844 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes gle Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: Control Enable: Yes rrect Marks: 3 Wrong Marks: 1
	estion Label : Multiple Choice Question epletion region is the zone which contains :
Ī	holes only
1.	noice diffy
2.	electrons only
3.	both electrons and holes
4.	neither electrons nor holes
Sin	estion Number : 174 Question Id : 5431075845 Question Type : MCQ Option Shuffling : Yes Display Question Number : Yes gle Line Question Option : No Option Orientation : Vertical Allowed Progression : Yes Number of Replay : 999 Play On Load : Control Enable : Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question A load line is a graph between :
Options:
I_C and V_{CC}
$_{2.}$ $^{I_{E}}$ and $^{V_{EE}}$
$_{ m 3.}$ $I_{ m C}$ and $V_{ m CE}$
$_{4.}$ I_{C} and V_{BE}
Question Number: 175 Question Id: 5431075846 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question
Colour of light emitted by LED depends on :
Options:
its forward bias 1.
its reverse bias 2.
forward current
semiconductor material 4.
Question Number: 176 Question Id: 5431075847 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1
Question Label : Multiple Choice Question
The process of changing a weak signal, without changing its shape, into strong
one is known as :
Options:
biasing 1.
rectification 2.
3. modulation

4 amplification

Question Number: 177 Question Id: 5431075848 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The relation between β and α of a transistor is :

Options:

$$\beta = \frac{\alpha}{1 + \alpha}$$

$$\beta = \frac{1+\alpha}{\alpha}$$

$$\beta = \frac{\alpha}{1 - \alpha}$$

$$\beta = \frac{1-\alpha}{\alpha}$$

Question Number: 178 Question Id: 5431075849 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

Zener breakdown takes place if:

Options:

doped impurity is low

doped impurity is high

less impurity in n-type

less impurity in p-type

Question Number: 179 Question Id: 5431075850 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load:

No Control Enable: Yes

Correct Marks: 3 Wrong Marks: 1

Question Label : Multiple Choice Question

The structure of solids is investigated by using :

cosmic rays γ-rays $_{\rm 3.}$ infra-red radiation 4. X-rays Question Number: 180 Question Id: 5431075851 Question Type: MCQ Option Shuffling: Yes Display Question Number: Yes Single Line Question Option: No Option Orientation: Vertical Allowed Progression: Yes Number of Replay: 999 Play On Load: No Control Enable: Yes Correct Marks: 3 Wrong Marks: 1 Question Label: Multiple Choice Question Davission and Germer experiment relates to: **Options:** Interference 2. Polarization 3. Electron diffraction 4. Phosphorescence