National Testing Agency

Question Paper Name :	PGQP50 16th Sept 2021 Shift 1
Subject Name :	PGQP50
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PGQP50

Group Number :	1
Group Id :	864351313
Group Maximum Duration :	0
Group Minimum Duration :	120
Show Attended Group? :	No
Edit Attended Group? :	No
Break time :	0
Group Marks :	400
Is this Group for Examiner? :	No

PART A-General

Section Id :	8643511168
Section Number :	1
Section type :	Online
Mandatory or Optional :	Mandatory

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Number of Questions :	25
Number of Questions to be attempted :	25
Section Marks :	100
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	8643511401
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 86435127005 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Select the correct word that can best complete the given sentence :

Marriages between members of extended family were _____ to strengthen the ties of relationship.

1. mentioned
2. promoted
3. indulged
4. performed

Options :

86435192471. 1

86435192472. 2

86435192473. 3

86435192474. 4

Question Number : 2 Question Id : 86435127006 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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From the choices given below, select the pair which exhibits the same relationship as the one in capitalized pair of words :

SOLDIER : REGIMENT

1. clown : circus
2. actor : troupe
3. dancer : ballet
4. instrument : musician

Options :

86435192475. 1

86435192476. 2

86435192477. 3

86435192478. 4

Question Number : 3 Question Id : 86435127007 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is correctly spelt?

1. Surruptitious
2. Surepptitious
3. Surrepcitious
4. Surreptitious

Options :

86435192479. 1

86435192480. 2

86435192481. 3

86435192482. 4

Question Number : 4 Question Id : 86435127008 Question Type : MCQ Option Shuffling : No Is

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Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is nearest in meaning to the word '**EDIFY**'?

1. Instruct
2. Satisfy
3. Amuse
4. Consume

Options :

86435192483. 1

86435192484. 2

86435192485. 3

86435192486. 4

Question Number : 5 Question Id : 86435127009 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

There was nobody to attend _____ the complaints of the passengers.

1. on
2. in
3. to
4. for

Options :

86435192487. 1

86435192488. 2

86435192489. 3

86435192490. 4

Question Number : 6 Question Id : 86435127010 Question Type : MCQ Option Shuffling : No Is

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Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A post without remuneration is known as

1. voluntary
2. sinecure
3. sincere
4. honorary

Options :

86435192491. 1

86435192492. 2

86435192493. 3

86435192494. 4

Question Number : 7 Question Id : 86435127011 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Select the most suitable antonym :

EXPEDITION

1. Silence
2. Explanation
3. Undertaking
4. Delay

Options :

86435192495. 1

86435192496. 2

86435192497. 3

86435192498. 4

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Question Number : 8 Question Id : 86435127012 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Fill in the blanks with right words :

Lakshman was initially _____ at the suggestion but later started _____ it himself.

1. thrilled, negating
2. frowning, rejecting
3. impressed, negating
4. shocked, advocating

Options :

86435192499. 1

86435192500. 2

86435192501. 3

86435192502. 4

Question Number : 9 Question Id : 86435127013 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Identify the meaning of the idiom from the options given :

Miss the boat

1. let too much time go by to complete a task
2. long for something that you don't have
3. miss out on an opportunity
4. not know the difference between right and wrong

Options :

86435192503. 1

86435192504. 2

86435192505. 3

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86435192506. 4

Question Number : 10 Question Id : 86435127014 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

These grapes _____ sour.

1. are testing
2. tasted
3. taste
4. have tested

Options :

86435192507. 1

86435192508. 2

86435192509. 3

86435192510. 4

Question Number : 11 Question Id : 86435127015 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In a certain code THRIVES is written as SIUHRDU. How is SOULFUL written in that code?

1. VPTKKTE
2. VPTKETK
3. TPVKKTE
4. TNRKMVG

Options :

86435192511. 1

86435192512. 2

86435192513. 3

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86435192514. 4

Question Number : 12 Question Id : 86435127016 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

What will come in place of the question mark (?) in the expression?

$1050 \div 25 \times 51 - 1942 = ?$

1. 152
2. 200
3. 252
4. 300

Options :

86435192515. 1

86435192516. 2

86435192517. 3

86435192518. 4

Question Number : 13 Question Id : 86435127017 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

There are five statues L, M, N, O and P each of them having different height. Statue L is smaller than only statue M. Statue O is smaller than statue N. Statue O is longer than statue P. The height of the tallest statue is 20 feet. The height of the second smallest statue is 11 feet. What will be the height of statue P?

1. 9 feet
2. 12 feet
3. 13 feet
4. 15 feet

Options :

86435192519. 1

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86435192520. 2

86435192521. 3

86435192522. 4

Question Number : 14 Question Id : 86435127018 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Ashok started walking towards South. After walking 50 meters he took a right turn and walked 30 meters. He then took a right turn and walked 100 meters. He again took a right turn and walked 30 meters and stopped. How far he from the starting point?

1. 180 meters
2. 150 meters
3. 50 meters
4. None of these

Options :

86435192523. 1

86435192524. 2

86435192525. 3

86435192526. 4

Question Number : 15 Question Id : 86435127019 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The number, whose square is equal to the difference of the squares of the numbers 68 and 32, is

1. 36
2. 48
3. 60
4. 64

Options :

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86435192527. 1

86435192528. 2

86435192529. 3

86435192530. 4

Question Number : 16 Question Id : 86435127020 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which one of the following is not a prime number?

1. 31
2. 61
3. 71
4. 91

Options :

86435192531. 1

86435192532. 2

86435192533. 3

86435192534. 4

Question Number : 17 Question Id : 86435127021 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

1397 x 1397 = ?

1. 1981709
2. 1951609
3. 1836219
4. 1902179

Options :

86435192535. 1

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86435192536. 2

86435192537. 3

86435192538. 4

Question Number : 18 Question Id : 86435127022 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

What least number must be added to 1056, so that the sum is completely divisible by 23?

1. 21
2. 18
3. 3
4. 2

Options :

86435192539. 1

86435192540. 2

86435192541. 3

86435192542. 4

Question Number : 19 Question Id : 86435127023 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Choose the correct answer :

7845 - ? = 8461 - 3569

1. 2953
2. 2773
3. 3569
4. 2352

Options :

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86435192543. 1

86435192544. 2

86435192545. 3

86435192546. 4

Question Number : 20 Question Id : 86435127024 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which country is called the 'Land of Fiords' ?

1. Sweden
2. Italy
3. Norway
4. Singapore

Options :

86435192547. 1

86435192548. 2

86435192549. 3

86435192550. 4

Question Number : 21 Question Id : 86435127025 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The biggest part of the brain is

1. cerebrum
2. spinal cord
3. cerebellum
4. brain stem

Options :

86435192551. 1

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86435192552. 2

86435192553. 3

86435192554. 4

Question Number : 22 Question Id : 86435127026 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Name the person who was also known as 'Deshbandhu'.

1. S. Radhakrishnan
2. G. K. Gokhale
3. Chittaranjan Das
4. A. P. J. Abdul Kalam

Options :

86435192555. 1

86435192556. 2

86435192557. 3

86435192558. 4

Question Number : 23 Question Id : 86435127027 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Who is known as 'The Saint of Gutters'?

1. Baba Amte
2. Anna Hazare
3. Mother Teresa
4. None of these

Options :

86435192559. 1

86435192560. 2

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86435192561. 3

86435192562. 4

Question Number : 24 Question Id : 86435127028 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Garampani Sanctuary is located at

1. Junagarh, Gujarat
2. Diphu, Assam
3. Kohima, Nagaland
4. Gangtok, Sikkim

Options :

86435192563. 1

86435192564. 2

86435192565. 3

86435192566. 4

Question Number : 25 Question Id : 86435127029 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The National Rural Health Mission has been launched in the country in _____.

1. 2003
2. 2005
3. 2007
4. 2009

Options :

86435192567. 1

86435192568. 2

86435192569. 3

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86435192570. 4

Part B-Nano Sciences

Section Id :	8643511169
Section Number :	2
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	75
Number of Questions to be attempted :	75
Section Marks :	300
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	8643511402
Question Shuffling Allowed :	Yes

Question Number : 26 Question Id : 86435127030 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The difference between systolic and diastolic pressure in human is

1. 40
2. 80
3. 120
4. 200

Options :

86435192571. 1

86435192572. 2

86435192573. 3

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86435192574. 4

Question Number : 27 Question Id : 86435127031 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Defective hemoglobin is present in which of the following disorders?

1. Hematoma
2. Hematuria
3. Hemophilia
4. Sickle cell anemia

Options :

86435192575. 1

86435192576. 2

86435192577. 3

86435192578. 4

Question Number : 28 Question Id : 86435127032 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which is common among Whale, Seal and Shark?

1. Homeothermy
2. Seasonal migration
3. Convergent evolution
4. Thick subcutaneous fat

Options :

86435192579. 1

86435192580. 2

86435192581. 3

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86435192582. 4

Question Number : 29 Question Id : 86435127033 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Homologous organ indicates the

1. common descendent
2. parallel evolution
3. convergent evolution
4. natural selection

Options :

86435192583. 1

86435192584. 2

86435192585. 3

86435192586. 4

Question Number : 30 Question Id : 86435127034 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which one of following the state variables is not intensive variable?

1. Specific heat capacity at constant volume
2. Internal energy
3. Temperature
4. Pressure

Options :

86435192587. 1

86435192588. 2

86435192589. 3

86435192590. 4

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Question Number : 31 Question Id : 86435127035 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

When the system is not influenced in any way by its surrounding, then it is said to be

1. isolated system
2. closed system
3. open system
4. unbalanced system

Options :

86435192591. 1

86435192592. 2

86435192593. 3

86435192594. 4

Question Number : 32 Question Id : 86435127036 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The concept of temperature comes from

1. Zeroth law of thermodynamics
2. First law of thermodynamics
3. Second law of thermodynamics
4. Fourth law of thermodynamics

Options :

86435192595. 1

86435192596. 2

86435192597. 3

86435192598. 4

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Question Number : 33 Question Id : 86435127037 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The first law of thermodynamics states that (where ΔU is the change in internal energy of a system, Q is the sum of all heat transfer into and out of the system, and W is the sum of all work done on or by the system)

1. $\Delta U = Q + W$
2. $\Delta U = Q - W$
3. $Q = \Delta U + W$
4. $Q = \Delta U - W$

Options :

86435192599. 1

86435192600. 2

86435192601. 3

86435192602. 4

Question Number : 34 Question Id : 86435127038 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The order of nucleophilicities toward carbon is

1. $CN^- > I^- > S_2O_3^{2-} > SH^-$
2. $SH^- > S_2O_3^{2-} > CN^- > I^-$
3. $CN^- > S_2O_3^{2-} > SH^- > I^-$
4. $S_2O_3^{2-} > SH^- > CN^- > I^-$

Options :

86435192603. 1

86435192604. 2

86435192605. 3

86435192606. 4

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Question Number : 35 Question Id : 86435127039 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The basicity of an acid is calculated according to the

1. number of hydrogen ion produced
2. Swain-Scott equation
3. It is determined at kinetically controlled conditions
4. number of hydronium ion produced

Options :

86435192607. 1

86435192608. 2

86435192609. 3

86435192610. 4

Question Number : 36 Question Id : 86435127040 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

What is the curly arrow rule?

1. Curly arrows always flow from an electron-poor species to an electron-rich species
2. Curly arrows always flow from an electron-rich species to an electron-poor species
3. Curly arrows always flow from a neutral species to another electron-poor species
4. Curly arrows always flow from a neutral species to an electron-rich species

Options :

86435192611. 1

86435192612. 2

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86435192613. 3

86435192614. 4

Question Number : 37 Question Id : 86435127041 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The example of nucleophile is

1. hydronium ion
2. boron trifluoride (BF_3)
3. aluminum chloride ($AlCl_3$)
4. cyanide ion (CN^-)

Options :

86435192615. 1

86435192616. 2

86435192617. 3

86435192618. 4

Question Number : 38 Question Id : 86435127042 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Newton's first law states that

1. if a body is at rest or moving at a constant speed in a straight line, it will remain in same state unless it is acted upon by a force
2. a force applied to a body is equal to change in momentum
3. every action in nature have an equal and opposite reaction
4. friction is an external force that causes an object to slow down

Options :

86435192619. 1

86435192620. 2

86435192621. 3

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86435192622. 4

Question Number : 39 Question Id : 86435127043 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

According to de Broglie's hypothesis

1. different atoms and molecules can emit or absorb energy in discrete quantities (photon) only

2. any particle of matter that has linear momentum does behave like wave

3. all matters emit electromagnetic radiation when it has a temperature above absolute zero

4. two bodies that are at the same temperature stay in mutual thermal equilibrium

Options :

86435192623. 1

86435192624. 2

86435192625. 3

86435192626. 4

Question Number : 40 Question Id : 86435127044 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The energy level of hydrogen atom is proportional to

1. $1/n^2$

2. n^2

3. $(n + 1/2)$

4. $(-1/n^2)$

Options :

86435192627. 1

86435192628. 2

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86435192629. 3

86435192630. 4

Question Number : 41 Question Id : 86435127045 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The density of states for 1D nanostructure is

1. constant
2. proportional to $(E)^{1/2}$
3. proportional to $(1/E)^{1/2}$
4. proportional to $(1/E)^{3/2}$

Options :

86435192631. 1

86435192632. 2

86435192633. 3

86435192634. 4

Question Number : 42 Question Id : 86435127046 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Fermi-Dirac statistics is a type of quantum statistics that applies to a system containing

1. bosons
2. identical particles having half odd integer spin
3. charged particles
4. identical particles having integral spin

Options :

86435192635. 1

86435192636. 2

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86435192637. 3

86435192638. 4

Question Number : 43 Question Id : 86435127047 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Fat storing cells of vertebrates are called

1. astrocytes
2. melanocytes
3. hepatocytes
4. adipocytes

Options :

86435192639. 1

86435192640. 2

86435192641. 3

86435192642. 4

Question Number : 44 Question Id : 86435127048 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The degree of unsaturation of lipids can be measured as

1. iodine number
2. Polenske number
3. saponification number
4. acid number

Options :

86435192643. 1

86435192644. 2

86435192645. 3

ZOLLEGE.in

86435192646. 4

Question Number : 45 Question Id : 86435127049 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Increase in total bilirubin, particularly the direct bilirubin indicates

1. COPD
2. influenza
3. AMI
4. pancreatitis

Options :

86435192647. 1

86435192648. 2

86435192649. 3

86435192650. 4

Question Number : 46 Question Id : 86435127050 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which among the following is a non-essential amino acid?

1. Serine
2. Threonine
3. Lysine
4. Histidine

Options :

86435192651. 1

86435192652. 2

86435192653. 3

86435192654. 4

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Question Number : 47 Question Id : 86435127051 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

X-rays are used for studying crystal structure of solids because

1. they have very high energy, hence they can penetrate through solids
2. they are electromagnetic radiation, and hence do not interact with matter (crystals)
3. their wavelengths are comparable to inter-atomic distances
4. their high frequency enables rapid analysis

Options :

86435192655. 1

86435192656. 2

86435192657. 3

86435192658. 4

Question Number : 48 Question Id : 86435127052 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In case of pure insulators, covalent band is

1. empty
2. semi-field
3. filled
4. similar to conduction band

Options :

86435192659. 1

86435192660. 2

86435192661. 3

86435192662. 4

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Question Number : 49 Question Id : 86435127053 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Solar cell works based on

1. laser technology
2. photo-conduction
3. thermal emission
4. Tyndall effect

Options :

86435192663. 1

86435192664. 2

86435192665. 3

86435192666. 4

Question Number : 50 Question Id : 86435127054 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

_____ materials are slightly attracted by a magnetic field and do not retain the magnetic properties when the external field is removed.

1. Diamagnetic
2. Ferro-magnetic
3. Paramagnetic
4. Ferrite

Options :

86435192667. 1

86435192668. 2

86435192669. 3

86435192670. 4

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Question Number : 51 Question Id : 86435127055 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The reaction in which replacement of an atom or group of atoms are involved is termed as

1. addition reaction
2. elimination reaction
3. substitution reaction
4. oxidation reaction

Options :

86435192671. 1

86435192672. 2

86435192673. 3

86435192674. 4

Question Number : 52 Question Id : 86435127056 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The instrument used to measure optical rotation is

1. polarimeter
2. split
3. nicol prism
4. microscope

Options :

86435192675. 1

86435192676. 2

86435192677. 3

86435192678. 4

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Question Number : 53 Question Id : 86435127057 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The stereoisomers which can be interconverted by rotation of single bond are called

1. configurational isomers
2. geometrical isomers
3. conformational isomers
4. chain isomers

Options :

86435192679. 1

86435192680. 2

86435192681. 3

86435192682. 4

Question Number : 54 Question Id : 86435127058 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In structural representation of a molecule, the prefixes *Z* and *E* stand for

1. Zigle-Erythro
2. Zusammen-Estrogen
3. Zeigle-Erhard
4. Zusammen-Entgegen

Options :

86435192683. 1

86435192684. 2

86435192685. 3

86435192686. 4

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Question Number : 55 Question Id : 86435127059 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The atoms in a molecule of water adopt what kind of geometry?

1. Linear
2. Tetrahedral
3. Octahedral
4. Trigonal planar

Options :

86435192687. 1

86435192688. 2

86435192689. 3

86435192690. 4

Question Number : 56 Question Id : 86435127060 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which is the strongest acid?

1. $HClO_4$
2. $HClO_3$
3. $HClO_2$
4. HClO

Options :

86435192691. 1

86435192692. 2

86435192693. 3

86435192694. 4

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Question Number : 57 Question Id : 86435127061 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Solvent which brings ionization of solute to same extent is called as

1. acidic solvent
2. basic solvent
3. differentiating solvent
4. leveling solvent

Options :

86435192695. 1

86435192696. 2

86435192697. 3

86435192698. 4

Question Number : 58 Question Id : 86435127062 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is not a Lewis acid?

1. Aluminium chloride
2. Sodium ion
3. Sulphur tetrafluoride
4. Hydroxide ion

Options :

86435192699. 1

86435192700. 2

86435192701. 3

86435192702. 4

Question Number : 59 Question Id : 86435127063 Question Type : MCQ Option Shuffling : No

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Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which law states that the internal energy of a gas is a function of temperature?

1. Charles' law
2. Joule's law
3. Regnault's law
4. Boyle's law

Options :

86435192703. 1

86435192704. 2

86435192705. 3

86435192706. 4

Question Number : 60 Question Id : 86435127064 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

According to Avogadro's hypothesis

1. the molecular weights of all the perfect gases occupy the same volume under same conditions of pressure and temperature
2. the sum of partial pressure of mixture of two gases is sum of the two
3. product of the gas constant and the molecular weight of an ideal gas is constant
4. gases have two values of specific heat

Options :

86435192707. 1

86435192708. 2

86435192709. 3

86435192710. 4

Question Number : 61 Question Id : 86435127065 Question Type : MCQ Option Shuffling : No

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Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Molecule which donates a pair of electrons to form a coordinate covalent bond is termed as

1. Lewis acid
2. Lewis base
3. Bronsted-Lowry acid
4. Bronsted-Lowry base

Options :

86435192711. 1

86435192712. 2

86435192713. 3

86435192714. 4

Question Number : 62 Question Id : 86435127066 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Species which can accept a proton is called

1. acid
2. base
3. neutral compound
4. anion

Options :

86435192715. 1

86435192716. 2

86435192717. 3

86435192718. 4

Question Number : 63 Question Id : 86435127067 Question Type : MCQ Option Shuffling : No

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Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which statement is incorrect?

1. H_2SO_4 is dibasic
2. H_3PO_4 is tribasic
3. H_3PO_2 is tribasic
4. H_4EDTA is tetrabasic

Options :

86435192719. 1

86435192720. 2

86435192721. 3

86435192722. 4

Question Number : 64 Question Id : 86435127068 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following is the conjugate base of $[H_2PO4]^-$?

1. $(PO_4)^{3-}$
2. $(HPO_4)^{2-}$
3. H_3PO_4
4. $(H_3P_2O_7)^-$

Options :

86435192723. 1

86435192724. 2

86435192725. 3

86435192726. 4

Question Number : 65 Question Id : 86435127069 Question Type : MCQ Option Shuffling : No

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Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Repeatable entity of a crystal structure is termed as

1. crystal
2. lattice
3. unit cell
4. Miller indices

Options :

86435192727. 1

86435192728. 2

86435192729. 3

86435192730. 4

Question Number : 66 Question Id : 86435127070 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

What is the coordination number of simple cubic crystal structure?

1. 1
2. 2
3. 3
4. 6

Options :

86435192731. 1

86435192732. 2

86435192733. 3

86435192734. 4

Question Number : 67 Question Id : 86435127071 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

Atomic packing factor can be defined as

1. distance between two adjacent atoms
2. projected area fraction of atoms on a plane
3. volume fraction of atoms in cell
4. atomic volume

Options :

86435192735. 1

86435192736. 2

86435192737. 3

86435192738. 4

Question Number : 68 Question Id : 86435127072 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Buffers are used for which purpose?

1. Keeping pH constant
2. Keeping temperature constant
3. Keeping pressure constant
4. Keeping the volume constant

Options :

86435192739. 1

86435192740. 2

86435192741. 3

86435192742. 4

Question Number : 69 Question Id : 86435127073 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

Which of the following compounds exhibit cis-trans isomerism?

1. 2-butene
2. 2-butyne
3. 2-butanol
4. butanal

Options :

86435192743. 1

86435192744. 2

86435192745. 3

86435192746. 4

Question Number : 70 Question Id : 86435127074 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The number of isomers of C_6H_{14} is

1. 3
2. 5
3. 6
4. 4

Options :

86435192747. 1

86435192748. 2

86435192749. 3

86435192750. 4

Question Number : 71 Question Id : 86435127075 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

Which of the following is involved in allergic reactions?

1. IgG
2. IgA
3. IgM
4. IgE

Options :

86435192751. 1

86435192752. 2

86435192753. 3

86435192754. 4

Question Number : 72 Question Id : 86435127076 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

How many optically active stereoisomers are possible for butane-2,3-diol?

1. 1
2. 2
3. 3
4. 4

Options :

86435192755. 1

86435192756. 2

86435192757. 3

86435192758. 4

Question Number : 73 Question Id : 86435127077 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

Substances which have permeability less than the permeability of free space are known as

1. ferromagnetic
2. paramagnetic
3. diamagnetic
4. bipolar

Options :

86435192759. 1

86435192760. 2

86435192761. 3

86435192762. 4

Question Number : 74 Question Id : 86435127078 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The ability of material to absorb energy in the elastic region is called

1. ductility
2. resilience
3. toughness
4. hardness

Options :

86435192763. 1

86435192764. 2

86435192765. 3

86435192766. 4

Question Number : 75 Question Id : 86435127079 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

The entropy _____ in an irreversible cyclic process.

1. remains constant
2. always fluctuate
3. increases
4. decreases

Options :

86435192767. 1

86435192768. 2

86435192769. 3

86435192770. 4

Question Number : 76 Question Id : 86435127080 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The evolution of a local population among plant species with a wide range of genetic distribution is known as

1. ecotype
2. population
3. ecosystem
4. biome

Options :

86435192771. 1

86435192772. 2

86435192773. 3

86435192774. 4

Question Number : 77 Question Id : 86435127081 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

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Correct Marks : 4 Wrong Marks : 1

A population is a group of

1. individuals in a species
2. species in a community
3. communities in an ecosystem
4. individuals in a family

Options :

86435192775. 1

86435192776. 2

86435192777. 3

86435192778. 4

Question Number : 78 Question Id : 86435127082 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The cross-linkage of antigens by antibodies is known as

1. agglutination
2. complement fixation
3. a cross reaction
4. precipitation

Options :

86435192779. 1

86435192780. 2

86435192781. 3

86435192782. 4

Question Number : 79 Question Id : 86435127083 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Hybridoma technique is used to produce which type of molecule?

1. Monoclonal antibody
2. Vaccines
3. Cytokines
4. Steroids

Options :

86435192783. 1

86435192784. 2

86435192785. 3

86435192786. 4

Question Number : 80 Question Id : 86435127084 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Marshall's acid is

1. $H_2S_2O_7$
2. H_2SO_3
3. H_2SO_5
4. $H_2S_2O_8$

Options :

86435192787. 1

86435192788. 2

86435192789. 3

86435192790. 4

Question Number : 81 Question Id : 86435127085 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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The number of hydroxy groups present in pyrosulphuric acid is

1. 3
2. 4
3. 2
4. 1

Options :

86435192791. 1

86435192792. 2

86435192793. 3

86435192794. 4

Question Number : 82 Question Id : 86435127086 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following oxyanions of chlorine is most stable?

1. ClO_2^-
2. ClO_3^-
3. ClO_4^-
4. ClO^-

Options :

86435192795. 1

86435192796. 2

86435192797. 3

86435192798. 4

Question Number : 83 Question Id : 86435127087 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Superhalogen is

1. F_2
2. Br_2
3. Cl_2
4. I_2

Options :

86435192799. 1

86435192800. 2

86435192801. 3

86435192802. 4

Question Number : 84 Question Id : 86435127088 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

$K_4Fe(CN)_6$ is

1. double salt
2. basic salt
3. complex compound
4. simple salt

Options :

86435192803. 1

86435192804. 2

86435192805. 3

86435192806. 4

Question Number : 85 Question Id : 86435127089 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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The most stable oxidation state of iron is

1. 2+
2. 3+
3. 1+
4. 1–

Options :

86435192807. 1

86435192808. 2

86435192809. 3

86435192810. 4

Question Number : 86 Question Id : 86435127090 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following parameters can't be found with Hall effect?

1. Mobility
2. Conductivity
3. Carrier concentration
4. Area of the device

Options :

86435192811. 1

86435192812. 2

86435192813. 3

86435192814. 4

Question Number : 87 Question Id : 86435127091 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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The rate constant for a reaction is 10.8×10^{-5} mole/litre/sec. The reaction is

1. first-order
2. zero-order
3. second-order
4. half-order

Options :

86435192815. 1

86435192816. 2

86435192817. 3

86435192818. 4

Question Number : 88 Question Id : 86435127092 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The effect of temperature on the reaction rate is given by

1. Arrhenius equation
2. Gibbs-Helmholtz equation
3. Kirchhoff's equation
4. Bragg's equation

Options :

86435192819. 1

86435192820. 2

86435192821. 3

86435192822. 4

Question Number : 89 Question Id : 86435127093 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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For a zero-order reaction

1. $t_{1/2}$ proportional C_0
2. $t_{1/2}$ proportional $1/C_0$
3. $t_{1/2}$ proportional C_0^2
4. $t_{1/2}$ proportional $1/C_0^2$

Options :

86435192823. 1

86435192824. 2

86435192825. 3

86435192826. 4

Question Number : 90 Question Id : 86435127094 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Time required to decompose half of the substance for *n*-th order is inversely proportional to

1. a^n
2. a^{n-1}
3. a^{n-2}
4. a^{n+1}

Options :

86435192827. 1

86435192828. 2

86435192829. 3

86435192830. 4

Question Number : 91 Question Id : 86435127095 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Which of the following is low-spin complex?

1. $[Fe(CN)_6]^{3-}$
2. $CoCl_6^{3-}$
3. FeF_6^{3-}
4. $[Co(NH_3)_6]^{2+}$

Options :

86435192831. 1

86435192832. 2

86435192833. 3

86435192834. 4

Question Number : 92 Question Id : 86435127096 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements is not true about meso compounds?

1. They have an internal mirror plane
2. They are optically active
3. They are optically inactive
4. They are achiral

Options :

86435192835. 1

86435192836. 2

86435192837. 3

86435192838. 4

Question Number : 93 Question Id : 86435127097 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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The number of geometrical isomers in case of the compound $CH_3—CH=CH—CH=CH—C_2H_5$ is

1. 4
2. 3
3. 2
4. 5

Options :

86435192839. 1

86435192840. 2

86435192841. 3

86435192842. 4

Question Number : 94 Question Id : 86435127098 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The molecular formula of a saturated compound is $C_2H_4Br_2$. This formula permits the existence of

1. functional isomers
2. optical isomers
3. positional isomers
4. cis- trans-isomers

Options :

86435192843. 1

86435192844. 2

86435192845. 3

86435192846. 4

Question Number : 95 Question Id : 86435127099 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Mesotartaric acid is

1. optically active
2. racemic mixture
3. optically inactive
4. geometrical isomer

Options :

86435192847. 1

86435192848. 2

86435192849. 3

86435192850. 4

Question Number : 96 Question Id : 86435127100 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In a native PAGE, proteins are separated on the basis of

1. net negative charge
2. net charge and size
3. net positive charge
4. net positive charge and size

Options :

86435192851. 1

86435192852. 2

86435192853. 3

86435192854. 4

Question Number : 97 Question Id : 86435127101 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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Vectors design to replicate in cells of two different species are called

1. phasmids
2. transfer vectors
3. shuttle vectors
4. phagemids

Options :

86435192855. 1

86435192856. 2

86435192857. 3

86435192858. 4

Question Number : 98 Question Id : 86435127102 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Fermi energy level is

1. the minimum energy of electrons at 0 K
2. the minimum energy of electrons at 273 K
3. the maximum energy of electrons at 0 K
4. the maximum energy of electrons at 273 K

Options :

86435192859. 1

86435192860. 2

86435192861. 3

86435192862. 4

Question Number : 99 Question Id : 86435127103 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

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When a *p-n* junction diode is in forward bias condition, the flow of current is mainly due to

1. the drift of electrons
2. the diffusion of electrons
3. drift and diffusion of electrons
4. holes

Options :

86435192863. 1

86435192864. 2

86435192865. 3

86435192866. 4

Question Number : 100 Question Id : 86435127104 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A transistor has how many doped regions?

1. 1
2. 2
3. 3
4. 4

Options :

86435192867. 1

86435192868. 2

86435192869. 3

86435192870. 4

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