

National Testing Agency

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PLANT SCIENCES

Group Number :	1
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PLANT SCIENCES -1

Section Id :	190889144
Section Number :	1
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Number of Questions :	120
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Enable Mark as Answered Mark for Review and Clear Response :	Yes
Sub-Section Number :	1
Sub-Section Id :	190889184
Question Shuffling Allowed :	Yes

Question Number : 1 Question Id : 1908897702 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 4 Wrong Marks : 1

If a woman carrier for color blindness marries to a color blind man and produce several children, the expected phenotype (color blind or normal) of the offspring would be -

- 1. All the offspring will be color blind
- 2. All male offspring will be color blind and all females will be normal
- 3. All male offspring will be normal and female will be color blind
- 4. All female offspring will be carriers of color blindness or color blind

Options :

- 19088930701. 1
- 19088930702. 2
- 19088930703. 3
- 19088930704. 4

Question Number : 2 Question Id : 1908897703 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No
Correct Marks : 4 Wrong Marks : 1

In Q-banding experiments, the light fluorescent band indicates that the chromosomal region is rich in base pairs-

1. T only
2. A only
3. A and T
4. G and C

Options :

19088930705. 1

19088930706. 2

19088930707. 3

19088930708. 4

Question Number : 3 Question Id : 1908897704 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In genetic analysis, the effect of tight-linkage may create confusion with which of the following events?

1. Pseudoallele
2. Pleiotropy
3. Penetrance
4. Epistasis

Options :

19088930709. 1

19088930710. 2

19088930711. 3

19088930712. 4

Question Number : 4 Question Id : 1908897705 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088930713. 1
- 19088930714. 2
- 19088930715. 3
- 19088930716. 4

Question Number : 5 Question Id : 1908897706 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

A tall greengram plant was crossed with a dwarf plant. All the F₁ plants were of intermediate height. The F₂ plants produced different phenotypic classes (plant height) in the ratio of 1:4:6:4:1. How many genes are involved in controlling the plant height?

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

Options :

- 19088930717. 1
- 19088930718. 2
- 19088930719. 3
- 19088930720. 4

Question Number : 6 Question Id : 1908897707 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The horn development in sheep (horned sheep) is a suitable example of which of the following events?

1. Sex limited trait
2. Sex influenced trait
3. Sex linked trait
4. Holandric trait

Options :

19088930721. 1

19088930722. 2

19088930723. 3

19088930724. 4

Question Number : 7 Question Id : 1908897708 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In a population of 100 individual, which is in Hardy-Weinberg equilibrium, the number of individual of different phenotypic classes are as follows: 64AA, 32 Aa and 4 aa. The frequency of A and a in this population would be-

1. $A=0.64, a=0.36$
2. $A=0.60, a=0.40$
3. $A=0.80, a=0.20$
4. $A=0.30, a=0.70$

Options :

19088930725. 1

19088930726. 2

19088930727. 3

19088930728. 4

Question Number : 8 Question Id : 1908897709 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The gas used in gas delinting of cotton seeds is-

1. Dry CO₂
2. Nitric oxide
3. Sulphur di-oxide
4. Dry hydrochloric acid

Options :

19088930729. 1

19088930730. 2

19088930731. 3

19088930732. 4

Question Number : 9 Question Id : 1908897710 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In case of okra or bhindi (*Abelmoschus esculentus*) seeds, the minimum per cent of pure seeds for certification is:

1. 99
2. 98
3. 97
4. 96

Options :

19088930733. 1

19088930734. 2

19088930735. 3

19088930736. 4

Question Number : 10 Question Id : 1908897711 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The recommended method for seed germination test in mustard is-

1. Sand method
2. Top of paper method
3. Between paper method
4. Sowing in field

Options :

19088930737. 1

19088930738. 2

19088930739. 3

19088930740. 4

Question Number : 11 Question Id : 1908897712 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The electrical conductivity (EC) test in seed testing gives a clear indication of-

1. Dehydrogenase activity
2. Alpha-amylase activity
3. Integrity of cell membrane
4. Glutamic acid decarboxylase activity

Options :

19088930741. 1

19088930742. 2

19088930743. 3

19088930744. 4

Question Number : 12 Question Id : 1908897713 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The most common secondary structure of protein molecule is-

1. Beta helix
2. Gamma helix
3. Alpha helix
4. Delta helix

Options :

19088930745. 1

19088930746. 2

19088930747. 3

19088930748. 4

Question Number : 13 Question Id : 1908897714 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The Ramsar Convention is an international treaty for the conservation and utilization of-

1. Dry land
2. Wet land
3. Rainforest
4. Desert

Options :

19088930749. 1

19088930750. 2

19088930751. 3

19088930752. 4

Question Number : 14 Question Id : 1908897715 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Development of seedless fruit would not be useful in case of-

1. Mango
2. Grape
3. Orange
4. Pomegranate

Options :

19088930753. 1

19088930754. 2

19088930755. 3

19088930756. 4

Question Number : 15 Question Id : 1908897716 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following represents 'vertisol'

1. Black cotton soil
2. Sandy loam sodic soil
3. Submontane (Tarai) soil
4. Red loamy soil

Options :

19088930757. 1

19088930758. 2

19088930759. 3

19088930760. 4

Question Number : 16 Question Id : 1908897717 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Color of the seed tag used in Foundation seed is-

1. Azure Blue
2. White
3. Golden yellow
4. Red

Options :

19088930761. 1

19088930762. 2

19088930763. 3

19088930764. 4

Question Number : 17 Question Id : 1908897718 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Colchicine is primarily obtained from which part(s) of the plant-

1. Root
2. Shoot apex
3. Mature leaves
4. Corm and seeds

Options :

19088930765. 1

19088930766. 2

19088930767. 3

19088930768. 4

Question Number : 18 Question Id : 1908897719 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

On average, how many fragments would a restriction enzyme, which recognizes a specific 5 base sequence in the DNA, would produce from a double-stranded bacteriophage genome of size 5252bp?

1. About 3
2. About 5
3. About 7
4. About 9

Options :

19088930769. 1

19088930770. 2

19088930771. 3

19088930772. 4

Question Number : 19 Question Id : 1908897720 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The concept of chromosomal non-disjunction was given by-

1. T. H. Morgan
2. A. H. Sturtevant
3. H. E. Muller
4. C. B. Bridges

Options :

19088930773. 1

19088930774. 2

19088930775. 3

19088930776. 4

Question Number : 20 Question Id : 1908897721 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

19088930777. 1

19088930778. 2

19088930779. 3

19088930780. 4

Question Number : 21 Question Id : 1908897722 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Flag leaf clipping in hybrid seed production in rice promotes higher seed setting.

Reason R : Flag leaf of rice intercepts more sunlight and facilitates accumulation of more photosynthates in the seeds as it is nearer to the panicle.

In light of the above statements, choose the *correct* answer from the options given below

1. Both A and R are true and R is the correct explanation of A
2. Both A and R are true but R is NOT the correct explanation of A
3. A is true but R is false
4. A is false but R is true

Options :

- 19088930781. 1
- 19088930782. 2
- 19088930783. 3
- 19088930784. 4

Question Number : 22 Question Id : 1908897723 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A : Magnetic separator in seed processing unit separate the seeds based on seed surface texture and stickiness of the seeds

Reason R : Insect-damaged and partially filled seeds may appear to be same as the normal seeds in shape and size, but it varies in their specific gravity.

In light of the above statements, choose the *correct* answer from the options given below

- 1. Both **A** and **R** are true and **R** is the correct explanation of **A**
- 2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
- 3. **A** is true but **R** is false
- 4. **A** is false but **R** is true

Options :

- 19088930785. 1
- 19088930786. 2
- 19088930787. 3
- 19088930788. 4

Question Number : 23 Question Id : 1908897724 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Options :

19088930789. 1

19088930790. 2

19088930791. 3

19088930792. 4

Question Number : 24 Question Id : 1908897725 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A : *Brassica juncea* is an allotetraploid having AABB genome

Reason R : *Brassica juncea* is produced when *B nigra* is crossed to *B campestris*

In light of the above statements, choose the *correct* answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

Options :

19088930793. 1

19088930794. 2

19088930795. 3

19088930796. 4

Question Number : 25 Question Id : 1908897726 Question Type : MCQ Option Shuffling : No Is
Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Cis-trans or complementation test results may be ambiguous, if-

- A. The mutations are dominant
- B. There is intragenic complementation
- C. The mutations belong to different genes with different phenotype
- D. There is polar mutation
- E. There is gene interaction

Choose the *correct* answer from the options given below

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

Options :

19088930797. 1

19088930798. 2

19088930799. 3

19088930800. 4

Question Number : 26 Question Id : 1908897727 Question Type : MCQ Option Shuffling : No Is
Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

The events happening during RNA processing are:

- A. Capping at the 5'-end.
- B. Proof-reading of the nascent mRNA.
- C. Splicing of the introns and joining of the exons.
- D. Deadenylation at the 3'-end.
- E. Addition of poly-A tail at the 3'-end.

Choose the *correct* answer from the options given below:

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

Options :

- 19088930801. 1
- 19088930802. 2
- 19088930803. 3
- 19088930804. 4

Question Number : 27 Question Id : 1908897728 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Chronological steps in the development of genotype and release of a crop variety

- A. Preliminary yield trial
- B. Genotype development
- C. Multilocation trial
- D. Notification of variety
- E. Identification of variety

Choose the *correct* answer from the options given below

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

Options :

19088930805. 1

19088930806. 2

19088930807. 3

19088930808. 4

Question Number : 28 Question Id : 1908897729 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088930809. 1
- 19088930810. 2
- 19088930811. 3
- 19088930812. 4

Question Number : 29 Question Id : 1908897730 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: The light-dependent reactions occur in the stroma in presence of light

Statement II: The light-independent reactions occur in the thylakoid in the absence of light

In light of the above statements, choose the *most appropriate* answer from the options given below

- 1. Both Statement I and Statement II are correct
- 2. Both Statement I and Statement II are incorrect
- 3. Statement I is correct but Statement II is incorrect
- 4. Statement I is incorrect but Statement II is correct

Options :

- 19088930813. 1
- 19088930814. 2
- 19088930815. 3
- 19088930816. 4

Question Number : 30 Question Id : 1908897731 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: Matthias Schleiden and Theodor Schwann proposed the first two components of the 'cell theory'.

Statement II: Rudolf Virchow proposed the third component of the 'cell theory'.

In light of the above statements, choose the *most appropriate* answer from the options given below

- 1. Both Statement I and Statement II are correct
- 2. Both Statement I and Statement II are incorrect
- 3. Statement I is correct but Statement II is incorrect
- 4. Statement I is incorrect but Statement II is correct

Options :

- 19088930817. 1
- 19088930818. 2
- 19088930819. 3
- 19088930820. 4

Question Number : 31 Question Id : 1908897732 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Options :

19088930821. 1

19088930822. 2

19088930823. 3

19088930824. 4

Question Number : 32 Question Id : 1908897733 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: Plastids are site of purine synthesis.

Statement II: Cytosol is the site of pyrimidine synthesis.

In light of the above statements, choose the *correct* answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

Options :

19088930825. 1

19088930826. 2

19088930827. 3

19088930828. 4

Question Number : 33 Question Id : 1908897734 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: Presence of objectionable weed seed reduces the physiological quality of a seed lot.

Statement II: Seeds of objectionable weed have same shape and size as the main crop seeds.

In light of the above statements, choose the *correct* answer from the options given below

- 1. Both Statement I and Statement II are true
- 2. Both Statement I and Statement II are false
- 3. Statement I is true but Statement II is false
- 4. Statement I is false but Statement II is true

Options :

19088930829. 1

19088930830. 2

19088930831. 3

19088930832. 4

Question Number : 34 Question Id : 1908897735 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Single cross hybrids can be used for a variety of purposes such as-

- A. Development of three-way cross hybrid.
- B. Development of composite variety.
- C. Development of double cross hybrid.
- D. Prediction of double cross hybrid.
- E. Back cross generation.

Choose the *correct* answer from the options given below:

- 1. A, B, D and E only
- 2. A, B and C only
- 3. A, C and D only
- 4. A, B, C and D only

Options :

- 19088930833. 1
- 19088930834. 2
- 19088930835. 3
- 19088930836. 4

Question Number : 35 Question Id : 1908897736 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

For estimation of mid-parent heterosis, the genotypes included in the trials are-

- A. F₁ hybrids
- B. Female parents
- C. Male parents
- D. Check variety
- E. Top cross hybrid

Choose the *correct* answer from the options given below:

- 1. A, B and D only
- 2. A, B and C only
- 3. A, B and E only
- 4. B, C and D only

Options :

- 19088930837. 1
- 19088930838. 2
- 19088930839. 3
- 19088930840. 4

Question Number : 36 Question Id : 1908897737 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Heterosis cannot be fixed, if it is obtained through-

- A. Apomixis
- B. Balanced lethal system
- C. Development of F₁ hybrid
- D. Development of synthetic variety
- E. Vegetative propagation

Choose the *correct* answer from the options given below:

- 1. C, D and E only
- 2. B, C and D only
- 3. B and D only
- 4. C and D only

Options :

- 19088930841. 1
- 19088930842. 2
- 19088930843. 3
- 19088930844. 4

Question Number : 37 Question Id : 1908897738 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Frequency of recombination between two genes is affected by-

- A. Coupling and repulsion phase of linkage
- B. Asynapsis and desynapsis
- C. Location of the gene with respect to the centromere
- D. Distance between two genes
- E. Translocation of the genes

Choose the *correct* answer from the options given below:

- 1. A, B, C and D only
- 2. A, C, D and E only
- 3. B, C, D and E only
- 4. A, B, C and E only

Options :

19088930845. 1

19088930846. 2

19088930847. 3

19088930848. 4

Question Number : 38 Question Id : 1908897739 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
Human disease/trait	Onset of expression
A. Alkaptonuria	I. Before birth
B. Blood groups	II. About 1 year after birth
C. Baldness	III. Immediately after birth
D. Rickets	IV. About 20-25 years after birth

Choose the *correct* answer from the options given below:

- 1. A - III, B - I, C - II, D - IV
- 2. A - I, B - III, C - IV, D - II
- 3. A - II, B - IV, C - III, D - I
- 4. A - III, B - I, C - IV, D - II

Options :

- 19088930849. 1
- 19088930850. 2
- 19088930851. 3
- 19088930852. 4

Question Number : 39 Question Id : 1908897740 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
Theory or principle	Whose name is associated with
A. Central Dogma of molecular biology	I. James Watson and FHC Crick
B. Chromosomal theory of inheritance	II. George W Beadle and Edward Tatum
C. DNA double helical structure	III. FHC Crick
D. One gene-one enzyme	IV. Walter Sutton and Theodor Boveri

Choose the *correct* answer from the options given below:

- 1. A - III, B - IV, C - I, D - II
- 2. A - III, B - II, C - I, D - IV
- 3. A - II, B - III, C - IV, D - I
- 4. A - I, B - II, C - III, D - IV

Options :

- 19088930853. 1
- 19088930854. 2
- 19088930855. 3
- 19088930856. 4

Question Number : 40 Question Id : 1908897741 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
Crop	Isolation distance (m) in certified seeds
A. Wheat	I. 1000
B. Composite variety of maize	II. 100
C. Radish	III. 3
D. Pigeonpea	IV. 200

Choose the *correct* answer from the options given below:

- 1. A - III, B - IV, C - II, D - I
- 2. A - III, B - IV, C - I, D - II
- 3. A - III, B - II, C - IV, D - I
- 4. A - II, B - I, C - IV, D - III

Options :

- 19088930857. 1
- 19088930858. 2
- 19088930859. 3
- 19088930860. 4

Question Number : 41 Question Id : 1908897742 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
Sex index	Sexual phenotype
A. 1.0	I. Male
B. 0.5	II. Intersex
C. 0.67	III. Super male
D. 0.33	IV. Female

Choose the *correct* answer from the options given below:

- 1. A - IV, B - I, C - II, D - III
- 2. A - IV, B - I, C - III, D - II
- 3. A - IV, B - III, C - I, D - II
- 4. A - I, B - IV, C - II, D - III

Options :

- 19088930861. 1
- 19088930862. 2
- 19088930863. 3
- 19088930864. 4

Question Number : 42 Question Id : 1908897743 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
Objectionable weed	Crop
A. <i>Argemone maxicana</i>	I. Lucerne
B. Johnson grass	II. Rapeseed and mustard
C. <i>Cichorium inotybus</i>	III. Sorghum
D. <i>Phalaris minor</i>	IV. Wheat

Choose the *correct* answer from the options given below:

- 1. A - II, B - III, C - IV, D - I
- 2. A - II, B - III, C - I, D - IV
- 3. A - II, B - I, C - III, D - IV
- 4. A - IV, B - III, C - I, D - II

Options :

- 19088930865. 1
- 19088930866. 2
- 19088930867. 3
- 19088930868. 4

Question Number : 43 Question Id : 1908897744 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Match List I with List II

List I	List II
Types of hybrid	Parental combinations of the crosses
A. Three way cross hybrid	I. (Inbred A x Inbred B) x Open pollinated variety
B. Modified single cross hybrid	II. Inbred A x Open pollinated variety
C. Double top-cross hybrid	III. (Inbred A x Inbred B) x Inbred C
D. Top cross hybrid	IV. (Inbred A x A') x Inbred B

Choose the *correct* answer from the options given below:

- 1. A - III, B - IV, C - II, D - I
- 2. A - III, B - I, C - IV, D - II
- 3. A - III, B - IV, C - I, D - II
- 4. A - I, B - IV, C - III, D - II

Options :

- 19088930869. 1
- 19088930870. 2
- 19088930871. 3
- 19088930872. 4

Question Number : 44 Question Id : 1908897745 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match List I with List II

List I	List II
Particular item	Description
A. Arboratum	I. Bio-geographic region with higher biodiversity
B. Herbarium	II. Sum total of genes of a species
C. Biodiversity hotspot	III. Botanical garden with trees and shrubs
D. Germplasm	IV. Collection of dried leaf specimen

Choose the *correct* answer from the options given below:

- 1. A - III, B - IV, C - I, D - II
- 2. A - III, B - IV, C - II, D - I
- 3. A - III, B - I, C - II, D - IV
- 4. A - IV, B - III, C - I, D - II

Options :

- 19088930873. 1
- 19088930874. 2
- 19088930875. 3
- 19088930876. 4

Question Number : 45 Question Id : 1908897746 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
Crop	Ploidy level
A. Rice	I. Tetraploid
B. Bread wheat	II. Triploid
C. Durum wheat	III. Diploid
D. Seedless banana	IV. Hexaploid

Choose the *correct* answer from the options given below:

- 1. A - II, B - I, C - IV, D - III
- 2. A - III, B - IV, C - I, D - II
- 3. A - IV, B - I, C - II, D - III
- 4. A - I, B - IV, C - II, D - III

Options :

- 19088930877. 1
- 19088930878. 2
- 19088930879. 3
- 19088930880. 4

Question Number : 46 Question Id : 1908897747 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
ICAR institute	Location of HQ
A. Indian Institute of Maize Research	I. Karnal
B. National Institute of Abiotic Stress Management	II. Hyderabad
C. Indian Institute of Rice Research	III. Ludhiana
D. India Institute of Wheat and Barley Research	IV. Baramati

Choose the *correct* answer from the options given below:

- 1. A - II, B - I, C - III, D - IV
- 2. A - III, B - IV, C - II, D - I
- 3. A - III, B - II, C - IV, D - I
- 4. A - IV, B - I, C - II, D - III

Options :

- 19088930881. 1
- 19088930882. 2
- 19088930883. 3
- 19088930884. 4

Question Number : 47 Question Id : 1908897748 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
Name of International Institute	Major mandate crop
A. ICRISAT	I. Wheat
B. IITA	II. Pigeonpea
C. CIAT	III. Cassava
D. CIMMYT	IV. Cowpea

Choose the *correct* answer from the options given below:

- 1. A - II, B - IV, C - I, D - III
- 2. A - II, B - IV, C - III, D - I
- 3. A - IV, B - II, C - III, D - I
- 4. A - IV, B - I, C - III, D - II

Options :

- 19088930885. 1
- 19088930886. 2
- 19088930887. 3
- 19088930888. 4

Question Number : 48 Question Id : 1908897749 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088930889. 1
- 19088930890. 2
- 19088930891. 3
- 19088930892. 4

Question Number : 49 Question Id : 1908897750 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Which of the following is fiber yielding plant

- 1. *Triticum aestivum*
- 2. *Gossypium hirsutum*
- 3. *Lens culinaris*
- 4. *Glycine max*

Options :

- 19088930893. 1
- 19088930894. 2
- 19088930895. 3
- 19088930896. 4

Question Number : 50 Question Id : 1908897751 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

The Food and Agriculture Organization (FAO) of United Nations has declared

- 1. Cereals
- 2. Pulses
- 3. Millets
- 4. Oilseeds

Options :

- 19088930897. 1
- 19088930898. 2
- 19088930899. 3
- 19088930900. 4

Question Number : 51 Question Id : 1908897752 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

The acronym ITPGRFA stands for

- 1. International Trade on Plant Genetic Resources for Food and Agriculture
- 2. International Treaty on Plant Genetic Resources for Food and Agriculture
- 3. International Trade on Plant Genomic Resources for Food and Agriculture
- 4. International Treaty on Plant Genomic Resources for Food and Agriculture

Options :

- 19088930901. 1
- 19088930902. 2
- 19088930903. 3
- 19088930904. 4

Question Number : 52 Question Id : 1908897753 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

The combination of the following crops yields the staple food of India

1. Wheat-Barley-Oats
2. Rice-Wheat-Maize
3. Wheat-Pulses-Oilseeds
4. Rice-Wheat-Millet

Options :

19088930905. 1

19088930906. 2

19088930907. 3

19088930908. 4

Question Number : 53 Question Id : 1908897754 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Seed coat is derived from

1. Nucellus
2. Embryo
3. Endosperm
4. Testa

Options :

19088930909. 1

19088930910. 2

19088930911. 3

19088930912. 4

Question Number : 54 Question Id : 1908897755 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088930913. 1
- 19088930914. 2
- 19088930915. 3
- 19088930916. 4

Question Number : 55 Question Id : 1908897756 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: Growth regulators which control plant growth and development are called phytohormones.

Statement II: Apical meristems are responsible for growth in length of branches and roots.

In light of the above statements, choose the *correct* answer from the options given below

- 1. Both Statement I and Statement II are true
- 2. Both Statement I and Statement II are false
- 3. Statement I is true but Statement II is false
- 4. Statement I is false but Statement II is true

Options :

- 19088930917. 1
- 19088930918. 2
- 19088930919. 3

19088930920. 4

Question Number : 56 Question Id : 1908897757 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: National Bureau of Animal Genetic Resources is located at Karnal.

Statement II: National Bureau of Fish Genetic Resources is located at Chennai.

In light of the above statements, choose the *correct* answer from the options given below

- 1. Both Statement I and Statement II are true
- 2. Both Statement I and Statement II are false
- 3. Statement I is true but Statement II is false
- 4. Statement I is false but Statement II is true

Options :

- 19088930921. 1
- 19088930922. 2
- 19088930923. 3
- 19088930924. 4

Question Number : 57 Question Id : 1908897758 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Options :

19088930925. 1

19088930926. 2

19088930927. 3

19088930928. 4

Question Number : 58 Question Id : 1908897759 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

In sea urchin DNA, which is double stranded, 10% of the bases are shown to be cytosine (C).
Based on this observation, the following were recorded

A. Guanine (G) are 10%

B. Adenine (A) are 40%

C. Thymine (T) are 20%

D. Purines are 50%

E. Purine and pyrimidine are equal

Choose the *correct* answer from the options given below:

1. A, B, C and D only
2. A, B, C and E only
3. A, B, D and E only
4. A, C, D and E only

Options :

- 19088930929. 1
- 19088930930. 2
- 19088930931. 3
- 19088930932. 4

Question Number : 59 Question Id : 1908897760 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Most of the energy in the cells is liberated by oxidation of carbohydrates when

- A. Pyruvic acid is converted into sugar
- B. Pyruvic acid is converted into acetyl-CoA
- C. Sugar is converted into pyruvic acid
- D. Glucose is converted into alcohol and CO₂
- E. Pyruvic acid is converted into CO₂ and H₂O

Choose the *most appropriate* answer from the options given below:

- 1. A and B only
- 2. B and C only
- 3. A and D only
- 4. E only

Options :

- 19088930933. 1
- 19088930934. 2
- 19088930935. 3
- 19088930936. 4

Question Number : 60 Question Id : 1908897761 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Recalcitrant seeds are

- A. Susceptible to desiccation
- B. Susceptible to freezing
- C. Tolerant to desiccation but susceptible to freezing
- D. Tolerant to freezing but susceptible to desiccation
- E. Tolerant to desiccation and freezing both

Choose the *most appropriate* answer from the options given below:

- 1. C, D and E only
- 2. E only
- 3. A and B only
- 4. C and D only

Options :

- 19088930937. 1
- 19088930938. 2
- 19088930939. 3
- 19088930940. 4

Question Number : 61 Question Id : 1908897762 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Most commonly used enzymes for DNA manipulation include the following

- A. Nucleases
- B. Ligases
- C. Polymerases
- D. Kinases
- E. Helicases

Choose the *most appropriate* answer from the options given below:

- 1. A, D and E only
- 2. B, D and E only
- 3. A, B and C only
- 4. C, D and E only

Options :

19088930941. 1

19088930942. 2

19088930943. 3

19088930944. 4

Question Number : 62 Question Id : 1908897763 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088930945. 1
- 19088930946. 2
- 19088930947. 3
- 19088930948. 4

Question Number : 63 Question Id : 1908897764 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match List I with List II

List I	List II
A. ICRISAT	I. London
B. Kew Botanical Garden	II. Chennai
C. National Biodiversity Authority	III. New Delhi
D. Protection of Plant Varieties and Farmers’ Rights Authority	IV. Patencheru

Choose the *correct* answer from the options given below:

- 1. A - IV, B - I, C - II, D - III
- 2. A - III, B - IV, C - II, D - I
- 3. A - I, B - II, C - III, D - IV
- 4. A - IV, B - III, C - II, D - I

Options :

- 19088930949. 1
- 19088930950. 2
- 19088930951. 3
- 19088930952. 4

Question Number : 64 Question Id : 1908897765 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Match List I with List II

List I	List II
A. Zeatin	I. Auxin
B. Picloram	II. Amino acid
C. Thiamine	III. Cytokinin
D. Glutamine	IV. Vitamin

Choose the *correct* answer from the options given below:

- 1. A - I, B - III, C - IV, D - II
- 2. A - III, B - I, C - IV, D - II
- 3. A - II, B - I, C - III, D - IV
- 4. A - III, B - II, C - IV, D - I

Options :

- 19088930953. 1
- 19088930954. 2
- 19088930955. 3
- 19088930956. 4

Question Number : 65 Question Id : 1908897766 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Options :

- 19088930957. 1
- 19088930958. 2
- 19088930959. 3
- 19088930960. 4

Question Number : 66 Question Id : 1908897767 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match List I with List II

List I	List II
A. Main product of photosynthesis	I. Chloroplast
B. The energy-carrying molecule that cells use for energy	II. Autotrophs
C. Organisms that make their own food	III. ATP
D. Organelle of photosynthesis	IV. Glucose

Choose the *correct* answer from the options given below:

- 1. A - I, B - II, C - III, D - IV
- 2. A - IV, B - II, C - III, D - I
- 3. A - I, B - III, C - II, D - IV
- 4. A - IV, B - III, C - II, D - I

Options :

19088930961. 1
19088930962. 2
19088930963. 3
19088930964. 4

Question Number : 67 Question Id : 1908897768 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
A. Protogyny	I. Differential maturation of male and female flowers
B. Androgyny	II. Stamen matures before pistil
C. Dichogamy	III. Pistil matures before stamen
D. Cleistogamy	IV. Flower does not open

Choose the *correct* answer from the options given below:

1. A - I, B - III, C - IV, D - II
2. A - III, B - II, C - I, D - IV
3. A - II, B - I, C - III, D - IV
4. A - II, B - III, C - IV, D - I

Options :

19088930965. 1
19088930966. 2
19088930967. 3
19088930968. 4

Question Number : 68 Question Id : 1908897769 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088930969. 1
- 19088930970. 2
- 19088930971. 3
- 19088930972. 4

Question Number : 69 Question Id : 1908897770 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
A. Grow-out test	I. Test for vigour of the seed
B. Osmotic stress test	II. Test for genetic purity of seed
C. Viability test	III. Test for aliveness of seed
D. Brick gravel test	IV. Test using PEG and mannitol

Choose the *correct* answer from the options given below:

- 1. A - III, B - IV, C - II, D - I
- 2. A - IV, B - II, C - I, D - III
- 3. A - II, B - IV, C - III, D - I
- 4. A - IV, B - III, C - II, D - I

Options :

- 19088930973. 1
- 19088930974. 2
- 19088930975. 3
- 19088930976. 4

Question Number : 70 Question Id : 1908897771 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A: In the Watson-Crick model of DNA, each turn of the helix is the length of 10 base pairs.

Reason R: Each complete turn of the double-stranded DNA helix is 3.4 Å long.

In light of the above statements, choose the *most appropriate* answer from the options given below

- 1. Both **A** and **R** are correct and **R** is the correct explanation of **A**
- 2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
- 3. **A** is correct but **R** is not correct
- 4. **A** is not correct but **R** is correct

Options :

- 19088930977. 1
- 19088930978. 2
- 19088930979. 3
- 19088930980. 4

Question Number : 71 Question Id : 1908897772 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Options :

19088930981. 1

19088930982. 2

19088930983. 3

19088930984. 4

Question Number : 72 Question Id : 1908897773 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A : While alloinfection increases disease incidence, the autoinfection increases the disease severity

Reason R : Neither autoinfection nor alloinfection is sufficient to cause disease epidemics

In light of the above statements, choose the *correct* answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

Options :

- 19088930985. 1
- 19088930986. 2
- 19088930987. 3
- 19088930988. 4

Question Number : 73 Question Id : 1908897774 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A : Plant disease symptoms need not harbor the pathogen propagules always

Reason R : Crown gall harbors *Agrobacterium tumefaciens*

In light of the above statements, choose the *correct* answer from the options given below

- 1. Both **A** and **R** are true and **R** is the correct explanation of **A**
- 2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
- 3. **A** is true but **R** is false
- 4. **A** is false but **R** is true

Options :

- 19088930989. 1
- 19088930990. 2
- 19088930991. 3
- 19088930992. 4

Question Number : 74 Question Id : 1908897775 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088930993. 1
- 19088930994. 2
- 19088930995. 3
- 19088930996. 4

Question Number : 75 Question Id : 1908897776 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A : Phytoplasma is a motile bacterium

Reason R : Phytoplasma is transmitted by leaf hopper

In light of the above statements, choose the *correct* answer from the options given below

- 1. Both **A** and **R** are true and **R** is the correct explanation of **A**
- 2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
- 3. **A** is true but **R** is false
- 4. **A** is false but **R** is true

Options :

- 19088930997. 1
- 19088930998. 2

19088930999. 3

19088931000. 4

Question Number : 76 Question Id : 1908897777 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: Viruses are the only pathogens transmitted by nematodes

Statement II: Biotic agents associated with plants are known to transmit plant pathogens

In light of the above statements, choose the *most appropriate* answer from the options given below

- 1. Both Statement I and Statement II are correct
- 2. Both Statement I and Statement II are incorrect
- 3. Statement I is correct but Statement II is incorrect
- 4. Statement I is incorrect but Statement II is correct

Options :

19088931001. 1

19088931002. 2

19088931003. 3

19088931004. 4

Question Number : 77 Question Id : 1908897778 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

19088931005. 1

19088931006. 2

19088931007. 3

19088931008. 4

Question Number : 78 Question Id : 1908897779 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following belong to Oomycetes

1. *Pestalotia*
2. *Phyllosticta*
3. *Plasmapara*
4. *Puccinia*

Options :

19088931009. 1

19088931010. 2

19088931011. 3

19088931012. 4

Question Number : 79 Question Id : 1908897780 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Rot diseases are caused by

- 1. *Fusarium oxysporum*
- 2. *Fusarium solani*
- 3. *Ralstonia solanacearum*
- 4. *Ralstonia pseudosolanacearum*

Options :

- 19088931013. 1
- 19088931014. 2
- 19088931015. 3
- 19088931016. 4

Question Number : 80 Question Id : 1908897781 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: True fungi is typically terrestrial-adapted organisms.

Statement II: True fungi possess chitin in the cell wall.

In light of the above statements, choose the *most appropriate* answer from the options given below

- 1. Both Statement I and Statement II are correct
- 2. Both Statement I and Statement II are incorrect
- 3. Statement I is correct but Statement II is incorrect
- 4. Statement I is incorrect but Statement II is correct

Options :

- 19088931017. 1
- 19088931018. 2
- 19088931019. 3
- 19088931020. 4

Question Number : 81 Question Id : 1908897782 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following plant disease was responsible for environmental disturbances impacting even the wildlife

- 1. Late blight of potato
- 2. Chestnut blight
- 3. Downy mildew of grapevine
- 4. Southern Corn blight

Options :

- 19088931021. 1
- 19088931022. 2
- 19088931023. 3
- 19088931024. 4

Question Number : 82 Question Id : 1908897783 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Light pathway of a typical microscope consists of several items, viz.,

- A. Light source to Mirror
- B. Field Diaphragm to Condensor
- C. Stage to Specimen
- D. Objective to Body
- E. Ocular to Eye/Camera

Choose the *correct* answer from the options given below

- 1. Light path is A to C to B to D to E
- 2. Light path is A to D to C to B to E
- 3. Light path is A to B to C to D to E
- 4. Light path is A to E to C to B to D

Options :

- 19088931025. 1

19088931026. 2

19088931027. 3

19088931028. 4

Question Number : 83 Question Id : 1908897784 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: Horizontal and Vertical Resistance defend crop plants against pathogens

Statement II: Horizontal Resistance is more frequently exploited in resistance breeding programme than Vertical Resistance

In light of the above statements, choose the *most appropriate* answer from the options given below

- 1. Both Statement I and Statement II are correct
- 2. Both Statement I and Statement II are incorrect
- 3. Statement I is correct but Statement II is incorrect
- 4. Statement I is incorrect but Statement II is correct

Options :

19088931029. 1

19088931030. 2

19088931031. 3

19088931032. 4

Question Number : 84 Question Id : 1908897785 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Options :

- 19088931033. 1
- 19088931034. 2
- 19088931035. 3
- 19088931036. 4

Question Number : 85 Question Id : 1908897786 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Wilt diseases are caused by

- 1. Heat
- 2. Drought
- 3. Bacteria and Fungi
- 4. Viroids

Options :

- 19088931037. 1
- 19088931038. 2
- 19088931039. 3
- 19088931040. 4

Question Number : 86 Question Id : 1908897787 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A : Foliar plant pathogen produce pigmented and colored spores

Reason R : The dark pigmentation helps the pathogens to adapt on foliar parts to withstand high radiations

In light of the above statements, choose the *correct* answer from the options given below

- 1. Both **A** and **R** are true and **R** is the correct explanation of **A**
- 2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
- 3. **A** is true but **R** is false
- 4. **A** is false but **R** is true

Options :

19088931041. 1

19088931042. 2

19088931043. 3

19088931044. 4

Question Number : 87 Question Id : 1908897788 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088931045. 1
- 19088931046. 2
- 19088931047. 3
- 19088931048. 4

Question Number : 88 Question Id : 1908897789 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
A. Anton de Bary	I. Gene for Gene hypothesis
B. M.W. Beijerinck	II. Late blight of potato
C. T. J. Burrell	III. Bacterial disease of plants
D. E. J. Butler	IV. Viruses
E. H.J. Flor	V. Imperial Mycologist

Choose the *correct* answer from the options given below:

- 1. A - III, B - IV, C - II, D - V, E - I
- 2. A - II, B - IV, C - III, D - V, E - I
- 3. A - III, B - V, C - II, D - IV, E - I
- 4. A - II, B - V, C - I, D - IV, E - III

Options :

- 19088931049. 1
- 19088931050. 2
- 19088931051. 3
- 19088931052. 4

Question Number : 89 Question Id : 1908897790 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Rust diseases are caused by

- A. Puccinia
- B. Albugo
- C. Cephalerosus
- D. Uromyces
- E. Gymnosporangium

Choose the *correct* answer from the option given below

- 1. Puccinia causes rust only on wheat
- 2. Albugo causes rust on mustards
- 3. Cephalerosus causes rust on barley
- 4. Uromyces and Gymnosporangium causes rust on tomato

Options :

- 19088931053. 1
- 19088931054. 2
- 19088931055. 3
- 19088931056. 4

Question Number : 90 Question Id : 1908897791 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

19088931057. 1

19088931058. 2

19088931059. 3

19088931060. 4

Question Number : 91 Question Id : 1908897792 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**

Assertion A : Barbery is an alternate host for *Puccinia graminis* f. sp. tritici

Reason R : Barbery play key role in rust epidemics in India

In light of the above statements, choose the *correct* answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

Options :

- 19088931061. 1
- 19088931062. 2
- 19088931063. 3
- 19088931064. 4

Question Number : 92 Question Id : 1908897793 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match List I with List II

List I	List II
A. ITCC	I. Belgium
B. MTCC	II. England
C. NCPPB	III. New Delhi
D. ATCC	IV. Chandigarh
E. LMG	V. USA

Choose the correct answer from the options given below:

- 1. A - III, B - IV, C - II, D - V, E - I
- 2. A - II, B - IV, C - III, D - V, E - I
- 3. A - III, B - V, C - II, D - IV, E - I
- 4. A - II, B - V, C - I, D - IV, E - III

Options :

- 19088931065. 1
- 19088931066. 2
- 19088931067. 3
- 19088931068. 4

Question Number : 93 Question Id : 1908897794 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

19088931069. 1

19088931070. 2

19088931071. 3

19088931072. 4

Question Number : 94 Question Id : 1908897795 Question Type : MCQ Option Shuffling : No Is

Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Motile infective propagules are produced by

A. *Pythium*

B. *Phytophthora*

C. *Xanthomonas*

D. *Ralstonia*

E. Nematodes

Choose the *correct* answer from the options given below:

1. *Pythium* and *Phytophthora* possess pili
2. *Pythium* and *Phytophthora* possess fimbria
3. Nematodes have flagella
4. *Xanthomonas*, and *Ralstonia* possess flagella

Options :

- 19088931073. 1
- 19088931074. 2
- 19088931075. 3
- 19088931076. 4

Question Number : 95 Question Id : 1908897796 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements, one is labelled as Assertion A and the other is labelled as Reason R

Assertion A : Polycyclic diseases are known to cause plant disease epidemics

Reason R : Polycyclic disease inciting pathogens produce multiplicity of infections in short time

In light of the above statements, choose the *correct* answer from the options given below

- 1. Both A and R are true and R is the correct explanation of A
- 2. Both A and R are true but R is NOT the correct explanation of A
- 3. A is true but R is false
- 4. A is false but R is true

Options :

- 19088931077. 1
- 19088931078. 2
- 19088931079. 3
- 19088931080. 4

Question Number : 96 Question Id : 1908897797 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088931081. 1
- 19088931082. 2
- 19088931083. 3
- 19088931084. 4

Question Number : 97 Question Id : 1908897798 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Arrange the following organelles starting from the center to periphery of the cell

- A. Golgi apparatus
- B. Nucleolus
- C. Rough endoplasmic reticulum
- D. Cell wall
- E. Plasma membrane

Choose the *correct* answer from the options given below

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

Options :

- 19088931085. 1
- 19088931086. 2
- 19088931087. 3
- 19088931088. 4

Question Number : 98 Question Id : 1908897799 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following cell organelle does not contain DNA

1. Lysosome
2. Mitochondria
3. Chloroplast
4. Nucleus

Options :

19088931089. 1

19088931090. 2

19088931091. 3

19088931092. 4

Question Number : 99 Question Id : 1908897800 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following statements are true while comparing prokaryotes and eukaryotes

A. Prokaryotes have 70S ribosomes, eukaryotes have 80S ribosomes.

B. Nuclear material is linear in both prokaryotes and eukaryotes.

C. Meiosis is the characteristic of eukaryotes.

D. Genetic exchange occurs in both prokaryotes and eukaryotes.

E. Nuclear membrane is present in both prokaryotes and eukaryotes.

Choose the *most appropriate* answer from the options given below:

1. A, C and D only
2. A, B, C, D only
3. A, B, D, E only
4. A, C, E only

Options :

19088931093. 1
19088931094. 2
19088931095. 3
19088931096. 4

Question Number : 100 Question Id : 1908897801 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No
Correct Marks : 4 Wrong Marks : 1

Which of the following statements are true for Koch's postulates

- A. The microorganisms must be present in every case of the disease
- B. The microorganisms may not be present in every case of the disease
- C. The microorganisms must be isolated from the diseased host and grown in pure culture
- D. The specific disease must be reproduced on inoculation of a pure culture of microorganisms in the healthy susceptible host
- E. The microorganism must be recoverable once again from the inoculated susceptible host

Choose the *most appropriate* answer from the options given below:

- 1. A, B, C and D only
- 2. A, B, C, D, E
- 3. A, C, D, E only
- 4. C, D, E only

Options :

19088931097. 1
19088931098. 2
19088931099. 3
19088931100. 4

Question Number : 101 Question Id : 1908897802 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No
Correct Marks : 4 Wrong Marks : 1

Options :

- 19088931101. 1
- 19088931102. 2
- 19088931103. 3
- 19088931104. 4

Question Number : 102 Question Id : 1908897803 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No
Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
A. Dipicolinic acid	I. Filter sterilization
B. Mycoplasmas	II. Endospore
C. Heat labile liquids	III. Mollicutes
D. Steam under pressure	IV. Autoclave

Choose the *correct* answer from the options given below:

- 1. A - III, B - IV, C - I, D - II
- 2. A - II, B - III, C - I, D - IV
- 3. A - II, B - III, C - IV, D - I
- 4. A - III, B - II, C - IV, D - I

Options :

- 19088931105. 1
- 19088931106. 2
- 19088931107. 3
- 19088931108. 4

Question Number : 103 Question Id : 1908897804 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No
Correct Marks : 4 Wrong Marks : 1

Which of the following are the properties of Mollicutes

- A. Lack of a defined cell wall
- B. Resistance to penicillin
- C. Pleomorphic shape
- D. Resistance to tetracycline
- E. Parasitism on eukaryotic organisms

Choose the *most appropriate* answer from the options given below:

- 1. A, B, C and D only
- 2. A, C, D and E only
- 3. A, B, C, D and E
- 4. A, B, C and E only

Options :

- 19088931109. 1
- 19088931110. 2
- 19088931111. 3
- 19088931112. 4

Question Number : 104 Question Id : 1908897805 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No
Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: A phototrophic microorganism can derive all carbon requirements from the principal carbon source

Statement II: An auxotrophic microorganism requires one or more growth factors in addition to the principal carbon source

In light of the above statements, choose the *most appropriate* answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Options :

19088931113. 1

19088931114. 2

19088931115. 3

19088931116. 4

Question Number : 105 Question Id : 1908897806 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Arrange the following events of phage replication in correct sequence

- A. Replication and synthesis
- B. Penetration
- C. Adsorption
- D. Lysis and release
- E. Assembly of phage particles

Choose the *correct* answer from the options given below

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

Options :

19088931117. 1

19088931118. 2

19088931119. 3

19088931120. 4

Question Number : 106 Question Id : 1908897807 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

19088931121. 1

19088931122. 2

19088931123. 3

19088931124. 4

**Question Number : 107 Question Id : 1908897808 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No**

Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: Operon models of gene regulation are applicable to prokaryotes only

Statement II: Eukaryotic DNA contain intervening pieces of DNA called Introns

In light of the above statements, choose the *correct* answer from the options given below

1. Both Statement I and Statement II are correct
2. Both Statement I and Statement II are incorrect
3. Statement I is correct but Statement II is incorrect
4. Statement I is incorrect but Statement II is correct

Options :

19088931125. 1

19088931126. 2

19088931127. 3

19088931128. 4

Question Number : 108 Question Id : 1908897809 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match List I with List II

List I	List II
A. Pseudomureins	I. Gram negative bacteria
B. Cell Outer Membrane	II. Bacteria
C. Algae-fungus association	III. Induction of Nod genes
D. Flavonoids	IV. Lichens

Choose the *correct* answer from the options given below:

- 1. A - II, B - III, C - IV, D - I
- 2. A - II, B - I, C - IV, D - III
- 3. A - III, B - IV, C - II, D - I
- 4. A - III, B - II, C - IV, D - I

Options :

19088931129. 1

19088931130. 2

19088931131. 3

19088931132. 4

Question Number : 109 Question Id : 1908897810 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

19088931133. 1

19088931134. 2

19088931135. 3

19088931136. 4

**Question Number : 110 Question Id : 1908897811 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No**

Correct Marks : 4 Wrong Marks : 1

Which of the following processes cause losses of nitrogen from the cultivated soils

A. Leaching

B. Volatilization

C. Biological nitrogen fixation

D. Denitrification

E. Green manuring

Choose the *most appropriate* answer from the options given below:

1. A and B only
2. A and D only
3. A, B and D only
4. C and E only

Options :

- 19088931137. 1
- 19088931138. 2
- 19088931139. 3
- 19088931140. 4

Question Number : 111 Question Id : 1908897812 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: Nitrification is the biological oxidation of ammonia to nitrates, in two steps

Statement II: Members of genus *Nitrobacter* are involved in the oxidation of nitrites to nitrates

In light of the above statements, choose the *most appropriate* answer from the options given below

- 1. Both Statement I and Statement II are correct
- 2. Both Statement I and Statement II are incorrect
- 3. Statement I is correct but Statement II is incorrect
- 4. Statement I is incorrect but Statement II is correct

Options :

- 19088931141. 1
- 19088931142. 2
- 19088931143. 3
- 19088931144. 4

Question Number : 112 Question Id : 1908897813 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088931145. 1
- 19088931146. 2
- 19088931147. 3
- 19088931148. 4

**Question Number : 113 Question Id : 1908897814 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No**

Correct Marks : 4 Wrong Marks : 1

Which of the following can be used for surface sterilization of plant material

- 1. Sodium chloride
- 2. Sodium hydroxide
- 3. Sodium sulphate
- 4. Sodium hypochlorite

Options :

- 19088931149. 1
- 19088931150. 2
- 19088931151. 3
- 19088931152. 4

Question Number : 114 Question Id : 1908897815 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Members of which of the nitrogen fixing genera form symbiotic associations with aquatic fern *Azolla*

- 1. *Nostoc*
- 2. *Anabaena*
- 3. *Azotobacter*
- 4. *Calothrix*

Options :

- 19088931153. 1
- 19088931154. 2
- 19088931155. 3
- 19088931156. 4

Question Number : 115 Question Id : 1908897816 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Which of the following molecule is known as the energy currency of the cell

- 1. ATP
- 2. AMP
- 3. NADH
- 4. FADH₂

Options :

- 19088931157. 1
- 19088931158. 2
- 19088931159. 3
- 19088931160. 4

Question Number : 116 Question Id : 1908897817 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Options :

- 19088931161. 1
- 19088931162. 2
- 19088931163. 3
- 19088931164. 4

Question Number : 117 Question Id : 1908897818 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Ideal C : N ratio of the mature compost is

- 1. <20:1
- 2. 35:1
- 3. 60:1
- 4. 100:1

Options :

- 19088931165. 1
- 19088931166. 2
- 19088931167. 3
- 19088931168. 4

Question Number : 118 Question Id : 1908897819 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No
Correct Marks : 4 Wrong Marks : 1

Given below are two statements

Statement I: Fermentation of cattle dung produces biogas which can be used for cooking, and the slurry produced can be used as organic manure.

Statement II: Ethane is the primary constituents of biogas.

In light of the above statements, choose the *most appropriate* answer from the options given below

- 1. Both Statement I and Statement II are correct
- 2. Both Statement I and Statement II are incorrect
- 3. Statement I is correct but Statement II is incorrect
- 4. Statement I is incorrect but Statement II is correct

Options :

- 19088931169. 1
- 19088931170. 2
- 19088931171. 3
- 19088931172. 4

Question Number : 119 Question Id : 1908897820 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No
Correct Marks : 4 Wrong Marks : 1

Options :

- 19088931173. 1
- 19088931174. 2
- 19088931175. 3
- 19088931176. 4

Question Number : 120 Question Id : 1908897821 Question Type : MCQ Option Shuffling : No
Is Question Mandatory : No
Correct Marks : 4 Wrong Marks : 1

Match **List I** with **List II**

List I	List II
A. National Bureau of Plant Genetic Resources (NBPGR)	I. Karnal
B. National Bureau of Animal Genetic Resources (NBAGR)	II. Lucknow
C. National Bureau of Fish Genetic Resources (NBFGR)	III. Delhi
D. National Bureau of Soil survey and Land use Planning (NBSSLUP)	IV. Nagpur

Choose the *correct* answer from the options given below:

- 1. A - III, B - II, C - I, D - IV
- 2. A - IV, B - I, C - II, D - III
- 3. A - IV, B - II, C - I, D - III
- 4. A - III, B - I, C - II, D - IV

Options :

19088931177. 1

19088931178. 2

19088931179. 3

19088931180. 4

NATIONAL TESTING AGENCY
ICAR's All India Entrance Examination September 2021
Final Answer Key on which result compiled on 23.10.2021

Exam Date : 17.09.2021

Shift : S1

Subject : PG - PLANT SCIENCES (02)

Question ID	Correct Option ID	Question ID	Correct Option ID	Question ID	Correct Option ID
1908897702	19088930704	1908897757	19088930923	1908897812	19088931141
1908897703	19088930708	1908897758	19088930928	1908897813	19088931145
1908897704	Dropped	1908897759	19088930931	1908897814	19088931152
1908897705	19088930716	1908897760	19088930936	1908897815	19088931154
1908897706	19088930718	1908897761	19088930939	1908897816	19088931157
1908897707	19088930722	1908897762	19088930943	1908897817	19088931163
1908897708	19088930727	1908897763	19088930945	1908897818	19088931165
1908897709	19088930732	1908897764	19088930949	1908897819	19088931171
1908897710	19088930733	1908897765	19088930954	1908897820	19088931173
1908897711	19088930738	1908897766	19088930960	1908897821	19088931180
1908897712	19088930743	1908897767	19088930964		
1908897713	19088930747	1908897768	19088930966		
1908897714	19088930750	1908897769	19088930969		
1908897715	19088930756	1908897770	19088930975		
1908897716	19088930757	1908897771	19088930979		
1908897717	19088930762	1908897772	19088930983		
1908897718	19088930768	1908897773	19088930987		
1908897719	19088930770	1908897774	19088930991		
1908897720	19088930776	1908897775	19088930995		
1908897721	19088930779	1908897776	19088931000		
1908897722	19088930782	1908897777	19088931004		
1908897723	19088930786	1908897778	19088931005		
1908897724	19088930789	1908897779	19088931011		
1908897725	19088930793	1908897780	19088931014		
1908897726	19088930799	1908897781	19088931017		
1908897727	19088930802	1908897782	19088931022		
1908897728	19088930806	1908897783	19088931027		
1908897729	19088930811	1908897784	19088931031		
1908897730	19088930814	1908897785	19088931036		
1908897731	19088930817	1908897786	19088931039		
1908897732	19088930821	1908897787	19088931041		
1908897733	19088930825	1908897788	19088931046		
1908897734	19088930832	1908897789	19088931050		
1908897735	19088930835	1908897790	19088931054		
1908897736	19088930838	1908897791	19088931060		
1908897737	19088930844	1908897792	19088931063		
1908897738	19088930847	1908897793	19088931065		
1908897739	19088930852	1908897794	19088931071		
1908897740	19088930853	1908897795	19088931076		
1908897741	19088930858	1908897796	19088931077		
1908897742	19088930861	1908897797	19088931081		
1908897743	19088930866	1908897798	19088931086		
1908897744	19088930871	1908897799	19088931089		
1908897745	19088930873	1908897800	19088931093		
1908897746	19088930878	1908897801	19088931099		
1908897747	19088930882	1908897802	Dropped		
1908897748	19088930886	1908897803	19088931106		
1908897749	19088930891	1908897804	19088931112		
1908897750	19088930894	1908897805	19088931113		
1908897751	Dropped	1908897806	19088931119		
1908897752	19088930902	1908897807	19088931121		
1908897753	Dropped	1908897808	19088931128		
1908897754	Dropped	1908897809	19088931130		
1908897755	19088930915	1908897810	19088931136		
1908897756	19088930917	1908897811	19088931139		