National Testing Agency

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PLANT SCIENCES

Group Number:

Group Id: 2105294

Group Maximum Duration:

Group Minimum Duration:

Show Attended Group?:

No
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Break time:

Group Marks:

480
Is this Group for Examiner?:

PLANT SCIENCES

Section Id: 2105298

Section Number:

Section type: Online
Mandatory or Optional: Mandatory

Number of Questions: 120

Number of Questions to be attempted:

Section Marks:

480

Display Number Panel:

Group All Questions:

Mark As Answered Required?:

Sub-Section Number:

1

Sub-Section Id:

2105298

Question Shuffling Allowed: Yes

Question Number: 1 Question Id: 210529421 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Cell wall of archaebacteria do not contain

- 1. Proteins
- 2. Glycoproteins
- 3. Polysaccharides
- 4. Peptidoglycans

Options:

2105291681.1

2105291682. 2

2105291683.3

2105291684.4

Question Number: 2 Question Id: 210529422 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Toxic shock syndrome, a severe infection characterized by high fever and vomiting is caused by

- 1. Bacillus anthracis
- 2. Staphylococcus aureus
- 3. Streptococcus pyogenes
- 4. Enterococcus faecalis

Options:

2105291685. 1

2105291686. 2

2105291687.3

2105291688.4

Question Number: 3 Question Id: 210529423 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Match List I with List II

	List I	List II
Α.	Chitin	I. Archaebacteria
В.	Pseudomurein	II. Gram-positive bacteria
C.	O-antigens	III. Fungal cell wall
D.	Teichoic acid	IV. Gram-negative bacteria

Choose the correct answer from the options given below:

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

Options:

2105291690. 2 2105291691. 3

2105291692.4

Question Number : 4 Question Id : 210529424 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks: 4 Wrong Marks: 1

Fractional sterilization is also called

- 1. Pasteurization
- 2. Tyndallization
- 3. Fractionation
- 4. Dry heat sterilization

Options:

2105291693.1

2105291694. 2

2105291695.3

2105291696.4

Question Number: 5 Question Id: 210529425 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

j	List I		List II
Α.	Incineration	1.	Culture media
В.	Sodium hypochlorite	11.	Sterilization of inoculation needle
C.	Moist heat sterilization	111.	Surface sterilization of seeds
D.	Filter sterilization	IV.	Thermo labile liquids

Choose the correct answer from the options given below:

1. A (II), B (IV), C (III), D (I)

2. A (IV), B (II), C (III), D (I)

3. A (II), B (III), C (I), D (IV)

4. A (III), B (I), C (IV), D (II)

Options:

2105291697.1

2105291698. 2

2105291699.3

2105291700.4

Question Number: 6 Question Id: 210529426 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Transfer of a portion of DNA from one bacterium to another by a bacteriophage is called

- 1. Transformation
- 2. Conjugation
- 3. Transduction
- 4. Translocation

Options:

2105291701.1

2105291703. 3 2105291704. 4

Question Number: 7 Question Id: 210529427 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

A type of mutualistic relationship in which individual of one species lives in close association with individual of another species is called

- 1. Symbiosis
- 2. Parasitism
- 3. Syntrophism
- 4. Commensalism

Options:

2105291705.1

2105291706. 2

2105291707.3

2105291708.4

Question Number: 8 Question Id: 210529428 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which of the following is a symbiotic nitrogen fixer?

- 1. Clostridium
- 2. Bradyrhizobium
- 3. Azospirillum
- 4. Azotobacter

Options:

2105291709.1

2105291710. 2

Question Number: 9 Question Id: 210529429 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Irradiation by UV light causes:

- 1. Dimerization of purines
- 2. Dimerization of pyrimidines
- 3. Dimerization of both purines and pyrimidines
- 4. Dimerization of either purines or pyrimidines

Options:

2105291713.1

2105291714. 2

2105291715.3

2105291716.4

Question Number: 10 Question Id: 210529430 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I (Organisms)		List II	
		(Specific activity)	
Α.	Mycorrhizae	I. Autotrophic nitrification	
В.	Symbiosome	II. Microaerophillic conditions	
C.	Azospirillum	III. Symbiotic nitrogen fixation	
D.	Nitrosomonas	IV. Phosphorous nutrition	

Choose the correct answer from the options given below:

1. A (I), B (II), C (IV), D (III)

2. A (IV), B (III), C (II), D (I)

3. A (IV), B (II), C (III), D (I)

4. A (IV), B (I), C (III), D (II)

Options:

2105291717. 1

2105291718. 2

2105291719.3

2105291720.4

Question Number: 11 Question Id: 210529431 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Maximum assimilation of nitrate takes place in which part of the plant?

- 1. Stem
- 2. Root
- 3. Leaves
- 4. Fruit

Options:

2105291722. 2 2105291723. 3 2105291724. 4

Question Number: 12 Question Id: 210529432 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Given below are two statements:

Statement I: Nitrogenase enzyme is sensitive to molecular oxygen

Statement II: Bacteria of genus Azospirillum fix nitrogen under microaerophillic conditions

In the light of above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement II is correct but Statement I is false

Options:

2105291725. 1

2105291726. 2

2105291727.3

2105291728.4

Question Number: 13 Question Id: 210529433 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Which of the following is NOT a non-sense codon?

- 1. UAG
- 2. UAA
- 3. AUG
- 4. UGA

Options:

2105291729.1

2105291730. 2

2105291731.3

2105291732.4

Question Number: 14 Question Id: 210529434 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Which of the following statements is NOT true for Koch's postulates?

A. A specific organism can always be found in association with a given disease

B. The organism can be isolated from a diseased animal and grown in pure culture in the laboratory

C. The pure culture will produce the disease when inoculated into a resistant animal

D. The pure culture will not produce the disease when inoculated into a susceptible animal

E. It is possible to recover the organism in pure culture from the experimentally infected animal

Choose the correct answer from the options given below:

1. C and D only

2. C, D and E only

3. C only

4. C and E only

Options:

2105291733.1

2105291734. 2

2105291735.3

2105291736.4

Question Number: 15 Question Id: 210529435 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Starting from interior to exterior, arrange the following in correct order:
A. Periplasmic space
B. Nucleus
C. Plasma membrane
D. Cell wall
E. Endoplasmic reticulum
Choose the correct answer from the options given below:
1. B, E, A, C, D 2. B, E, C, D, A 3. B, E, C, A, D 4. B, A, E, C, D Options: 2105291737. 1 2105291738. 2 2105291739. 3 2105291740. 4
Question Number: 16 Question Id: 210529436 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical Correct Marks: 4 Wrong Marks: 1
The degree of compost maturity can be assessed by:
1. Seed germination test only 2. Infrared technique only 3. Moisture content only 4. Both, seed germination test and infrared technique

Options:

2105291741. 1 2105291742. 2 2105291743. 3

2105291744.4

Question Number: 17 Question Id: 210529437 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Conjugation between two bacteria is mediated through

1. F-plasmid

2. R-plasmid

3. C-plasmid

4. D-plasmid

Options:

2105291745.1

2105291746. 2

2105291747.3

2105291748.4

Question Number: 18 Question Id: 210529438 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Biogas production from cattle manure involves which of the following types of bacteria?

- A. Hydrolytic
- B. Methanogenic
- C. Transitional

Choose the most appropriate answer from the options given below:

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

Options:

2105291749. 1

2105291750. 2

2105291751.3

2105291752.4

Question Number: 19 Question Id: 210529439 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: In bacterial transformation, a segment of naked DNA from the surroundings passes through the cell wall and plasma membrane of a recipient cell

Statement II: Only a few competent recipient bacterial cells can take up the DNA from the surroundings

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105291753.1

2105291754. 2

2105291755.3

2105291756.4

Question Number: 20 Question Id: 210529440 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Scientific name of Oil palm is:

- Olea europea
- 2. Elaeis guineensis
- 3. Ricinus communis
- 4. Sesamum indicum

Options:

2105291758. 2

2105291759. 3

2105291760.4

Question Number: 21 Question Id: 210529441 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The National Genebank Facility to conserve plant genetic resources in India is located at:

1. Chennai (Tamil Nadu)

- 2. Ahmedabad (Gujarat)
- 3. New Delhi (Delhi)
- 4. Hyderabad (Telangana)

Options:

2105291761.1

2105291762. 2

2105291763.3

2105291764.4

Question Number: 22 Question Id: 210529442 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which of the following crops are considered to have originated in South American Centre?

- 1. Potato, Tomato, Tobacco, Rice
- 2. Potato, Tomato, Tobacco, Maize
- 3. Potato, Tomato, Sugarcane, Wheat
- 4. Potato, Tomato, Soybean, Brinjal

Options:

2105291765.1

2105291766.2

Question Number: 23 Question Id: 210529443 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following species has an inflorescence of terminal digitate spikes of spikelets?

- 1. Setaria italica
- 2. Eleusine coracana
- 3. Panicum sumatrense
- 4. Panicum miliaceum

Options:

2105291769.1

2105291770. 2

2105291771.3

2105291772.4

Question Number: 24 Question Id: 210529444 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Who among the following scientist is considered as 'Father of Green Revolution in India'?

- 1. Dr B P Pal
- 2. Dr R S Paroda
- 3. Dr M S Swaminathan
- 4. Dr Gurudev S Khush

Options:

2105291773.1

2105291774. 2

2105291775.3

Question Number: 25 Question Id: 210529445 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

With respect to chickpea, which of the following statement is INCORRECT?

- 1. Chickpea is a rabi crop
- 2. Heavy rains after sowing or at flowering and fruiting stage is useful
- 3. The crop cannot tolerate frost at any stage of growth
- 4. Chickpea is well adapted to arid and semi-arid regions and a cool and dry climate

Options:

2105291777.1

2105291778. 2

2105291779.3

2105291780.4

Question Number: 26 Question Id: 210529446 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Zein, a special kind of protein is obtained from:

- 1. Ramie (Boehmeria nivea)
- 2. Guar (Cyamopsis tetragonoloba)
- 3. Grass pea (Lathyrus sativus)
- 4. Maize (Zea mays)

Options:

2105291781.1

2105291782. 2

2105291783.3

2105291784.4

Question Number: 27 Question Id: 210529447 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following is NOT an introduced variety of wheat crop?

- 1. Turkey
- 2. Marquis
- 3. Federation
- 4. Latisail

Options:

2105291785.1

2105291786. 2

2105291787. 3

2105291788.4

Question Number: 28 Question Id: 210529448 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which of the following statements are correct with respect to fibres or fibre yielding plants?

- Vegetable fibres are mainly composed of cellulose
- B. Vegetable fibres are mainly composed of proteins
- C. Fibre durability is conditioned by the diameter of the fibre or fibrous aggregate
- D. The flexible wall of cotton fibre contains no lignin

Choose the correct answer from the options given below:

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

Options:

2105291789.1

2105291791. 3 2105291792. 4

Question Number: 29 Question Id: 210529449 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

What is the role of antibiotics in disease management?

A. Prevent the growth of pathogens

- B. Prevent the development of pathogens
- C. Accelerate the growth of pathogens
- D. Accelerate the development of pathogens

Choose the correct answer from the options given below:

1. A, D only

2. B, C only

3. A, B only

4. C, D only

Options:

2105291793.1

2105291794. 2

2105291795.3

2105291796.4

Question Number: 30 Question Id: 210529450 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Which of the following listed items do NOT come under the purview of the National Plant Protection Organization (NPPO) under the International Plant Protection Convention (IPPC)?

- A. Surveillance and inspection
- B. Controlling pests (example administering treatments, preventing spread, disinfection or disinfestation)
- C. Conduction of pest risk analysis
- D. Conservation and regeneration of plant genetic resources
- E. Multiplication of plant genetic resources

Choose the correct answer from the options given below:

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

Options:

2105291797. 1

2105291798. 2

2105291799.3

2105291800.4

Question Number: 31 Question Id: 210529451 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Which of the statements below do NOT stand true about the 'Convention on Biological Diversity (CBD)'?

- A. CBD deals with all biological resources
- B. One of the objectives of CBD is the conservation and sustainable use of the component of biodiversity
- C. The CBD affirms the sovereign rights of the nation over its genetic resources
- D. CBD is an instrument for harmonizing phytosanitary measures in international trade
- E. CBD provides a model for securing protection for plant breeder rights for plant varieties

Choose the correct answer from the options given below:

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

Options:

2105291801.1

2105291802. 2

2105291803.3

2105291804.4

Question Number: 32 Question Id: 210529452 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

With regard to the cultivation of groundnut, which of the following statements are correct?

- A. Groundnut is a warm-season crop requiring abundant sunshine
- B. Well-drained sandy loams are most favourable for growing groundnut
- C. Groundnut is propagated through whole pods, decorticated seeds or from seedlings
- D. Groundnut is widely grown in coastal and deltaic regions
- E. Groundnut takes six to nine months to mature

Choose the correct answer from the options given below:

1. A, B, C only

2. B, C, D only

3. C, D, E only

4. A, D, E only

Options:

2105291805.1

2105291806. 2

2105291807.3

2105291808.4

Question Number: 33 Question Id: 210529453 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Which of the following statements are true with respect to tomato?

- A. Tomato plants are not sensitive to frost
- B. Typically tomato seeds are first sown in a nursery and transplanted later into the field
- C. Tomato is a native crop of Asia
- D. Under normal conditions, tomato assumes spreading habit
- E. Tomato is an annual crop

Choose the correct answer from the options given below:

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

Options:

2105291809. 1

2105291810. 2

2105291811.3

2105291812.4

Question Number: 34 Question Id: 210529454 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Arrange these Conventions and Treaties in ascending order of year they entered into force

- A. World Trade Organization-Trade Related Aspect of Intellectual Property Rights (WTO-TRIPS)
- B. Convention on Biological Diversity (CBD)
- C. Nagoya Protocol on Access and Benefit Sharing (NP)
- D. Geographical Indication of Goods (Registration and Protection), GI Act
- E. International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)

Choose the correct answer from the options given below:

1. B, D, A, E, C

2. A, B, D, E, C

3. E, C, B, A, D

4. D, B, A, E, C

Options:

2105291813.1

2105291814. 2

2105291815.3

2105291816.4

Question Number: 35 Question Id: 210529455 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I (Common name)		List II (Botanical name)	
В.	Sal	II. Diospyros ebenum	
C.	Ebony	III. Dalbergia latifolia	
D.	Teak	IV. Tectona grandis	

Choose the correct answer from the options given below:

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

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

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

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

Options:

2105291817. 1

2105291818. 2

2105291819.3

2105291820.4

Question Number: 36 Question Id: 210529456 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I (Crop)		List II	
		(Edible part)	
Α.	Cauliflower	I. Root	
В.	Chilli	II. Leaves	
C.	Carrot	III. Inflorescence	
D.	Spinach	IV. Fruits	

Choose the correct answer from the options given below:

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

Options:

- 2105291821. 1
- 2105291822. 2
- 2105291823.3
- 2105291824. 4

Question Number: 37 Question Id: 210529457 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I	List II
(Plant)	(Product)
A. Hevea brasiliensis	I. Henna
B. Achras zapota	II. Tannin
C. Lawsonia inermis	III. Rubber
D. Schinopsis lorentzii	IV. Chewing gum

Choose the correct answer from the options given below:

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

Options:

- 2105291825. 1
- 2105291826. 2
- 2105291827. 3
- 2105291828.4

Question Number: 38 Question Id: 210529458 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Mera Gaon Mera Gaurav Scheme under extension education was launched by Prime Minister Sh. Narender Modi with the theme 'Lab to Land' by asking scientists to adopt villages and remain in touch with them providing technical information to farmers and other aspects

Statement II: The scheme *Mera Gaon Mera Gaurav* functions with the help of Krishi Vigyan Kendra (KVKs) and Agriculture Technology Management Agencies (ATMA)

In the light of above statements, choose the **most appropriate** 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:

2105291829. 1

2105291830. 2

2105291831.3

2105291832.4

Question Number: 39 Question Id: 210529459 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Active collection in the seed genebank is conserved for a medium period of 2-10 years. They are regularly used for research and distribution to bonafide users

Statement II:

Base collections in the seed genebank are conserved for a long duration, 15 years or more for safety and prosperity

In light of the above statements, choose the **most appropriate** 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:

2105291833.1

2105291834. 2

2105291835.3

2105291836.4

Question Number: 40 Question Id: 210529460 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: The process of CTC in tea stands for Crushing, Tearing and Curling

Statement II: The process of CTC in tea stands for Curling, Tearing and Crushing

In the light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is True

Options:

2105291837. 1

2105291838. 2

2105291839.3

2105291840.4

Question Number: 41 Question Id: 210529461 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Potato is essentially a crop of cool moist regions and grows best in a climate where cool nights alternate with warm days during the period of tuber formation

Statement II: Irrigation or rainfall at or just before the initiation of tuber formation will result in decrease of the number of tuber sets

In the light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is True

Options:

2105291841.1

2105291842. 2

2105291843.3

2105291844.4

Question Number: 42 Question Id: 210529462 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which disease greatly stimulated interest in the cause and control of plant disease?

- 1. Downy mildew of grapevine
- 2. Early blight of potato
- 3. Late blight of potato
- 4. Wheat rust disease

Options:

2105291845.1

2105291847. 3 2105291848. 4

Question Number: 43 Question Id: 210529463 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following fungus is Perithecial ascomycetes?

- 1. Erysiphe
- 2. Uncinula
- 3. Podosphaera
- 4. Giberella

Options:

2105291849.1

2105291850. 2

2105291851.3

2105291852.4

Question Number: 44 Question Id: 210529464 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Polycyclic diseases are usually caused by pathogens adapted

- 1. on foliar plant parts
- 2. in soil
- 3. in rhizosphere
- 4. in phloem

Options:

2105291853.1

2105291854. 2

2105291855.3

Question Number: 45 Question Id: 210529465 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

In which of the following diseases, the symptom is spatially separated from the pathogen niche?

- 1. Crown gall
- 2. Die back
- 3. Leaf spot
- 4. Blight

Options:

2105291857.1

2105291858. 2

2105291859.3

2105291860.4

Question Number: 46 Question Id: 210529466 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which of the following vascular wilt is transmitted by beetles?

- 1. Bacterial wilt of tomato
- 2. Fungal wilt of banana
- 3. Bacterial wilt of banana
- 4. Fungal wilt of date palm

Options:

2105291861.1

2105291862. 2

2105291863.3

Question Number: 47 Question Id: 210529467 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following is a biotrophic oomycete?

- 1. Phytophthora capsici
- 2. Pythium ultimum
- 3. Phytophthora ramorum
- 4. Plasmopara viticola

Options:

2105291865.1

2105291866. 2

2105291867.3

2105291868.4

Question Number: 48 Question Id: 210529468 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following bacterial pathogenic genus is classified under Gram-negative aerobic and microaerophilic rods?

- 1. Acidovorax
- 2. Erwinia
- 3. Pantoea
- 4. Enterobacter

Options:

2105291869.1

2105291870.2

2105291871.3

2105291872.4

Question Number : 49 Question Id : 210529469 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks: 4 Wrong Marks: 1

Which one of the following viruses is transmitted by pollen?

- 1. Tospovirus
- 2. Tobravirus
- 3. Prunus necrotic ringspot virus
- 4. Papaya ringspot virus

Options:

2105291873.1

2105291874. 2

2105291875.3

2105291876.4

Question Number: 50 Question Id: 210529470 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

In which host-patho system does the Gene-for-Gene hypothesis operate?

- 1. Host Nectrotrophic interaction
- 2. Host-Saprophytic interaction
- 3. Host-Biotrophic interaction
- 4. Host- Obligate Saprophytic interaction

Options:

2105291877.1

2105291878. 2

2105291879.3

2105291880.4

Question Number: 51 Question Id: 210529471 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Many viral diseases are transmitted by insect vectors

Statement II: Few insects transmit bacterial diseases

In the light of above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105291881. 1

2105291882. 2

2105291883.3

2105291884.4

Question Number: 52 Question Id: 210529472 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Spatial and temporal transmission of plant pathogens are in general guided by asexual and sexual spores

Statement II: Bacterial pathogens produce asexual cells

In the light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105291885. 1

2105291886. 2

2105291887.3

2105291888.4

Question Number: 53 Question Id: 210529473 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Witches broom symptoms are caused by phytoplasmas

Statement II: Nutrient deficiency also causes witches broom in crop plants

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105291889. 1

2105291890. 2

2105291891.3

2105291892.4

Question Number: 54 Question Id: 210529474 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Xanthomonas causes disease on fibre plant parts

Statement II: Xanthomonas can cause vascular wilt in rice

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105291893. 1

2105291894. 2

2105291895.3

2105291896.4

Question Number: 55 Question Id: 210529475 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Leaf curl is one of the symptoms of viral disease

Statement II: Fungi can also cause leaf curl symptoms

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105291897. 1

2105291898. 2

2105291899.3

2105291900.4

Question Number: 56 Question Id: 210529476 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I		List II	
Α.	Tumor	I. Xanthomonas	
В.	Wilt	II. Pectobacterium	
C.	Spot	III. Pantoea	
D.	Rot IV. Agrobacterium		

Chose the correct answer from the options given below:

1. A (IV), B (III), C (I), D (II)

2. A (IV), B (II), C (III), D (I)

3. A (III), B (II), C (IV), D (I)

4. A (I), B (IV), C (II), D (III)

Options:

2105291901. 1

2105291902. 2

2105291903.3

2105291904.4

Question Number: 57 Question Id: 210529477 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I List II			
Α.	White rust I. Puccinia striiformis		
В.	Black rust	II. Albugo candida	
C.	Yellow rust	III. Cephaleuros parasiticus	
D.	Red Rust	IV. Puccinia tritici	

Chose the correct answer from the options given below:

1. A (I), B (II), C (III), D (IV)

2. A (II), B (IV), C (I), D (III)

3. A (IV), B (III), C (II), D (I)

4. A (III), B (II), C (I), D (IV)

Options:

2105291905.1

2105291906. 2

2105291907.3

2105291908.4

Question Number: 58 Question Id: 210529478 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Naked asci can be observed in which ascomycete fungus?

- 1. Erysiphe
- 2. Claviceps
- 3. Taphrina
- 4. Uncinula

Options:

2105291909.1

2105291910. 2

2105291911.3

Question Number: 59 Question Id: 210529479 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Match List I with List II

List I	List II	
A. Fusarium oxysporum	I. Microsclerotia	
B. Macrophomina phaseolina	II. Clamydospores	
C. Bipolaris sorokiniana	III. Thick-walled conidia	
D. Ralstonia solanacearum	IV. Naked cells	

Chose the correct answer from the options given below:

1. A (III), B (I), C (II), D (IV)

2. A (IV), B (I), C (III), D (II)

3. A (II), B (I), C (III), D (IV)

4. A (I), B (II), C (III), D (IV)

Options:

2105291913.1

2105291914. 2

2105291915.3

2105291916.4

Question Number: 60 Question Id: 210529480 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I	List II
A. Magnaporthe oryzae	I. Stomata
B. Puccinia tritici	II. Hydathodes
C. Xanthomonas axonopodis	III. Wound
D. Agrobacterium tumefaciens	IV. Direct penetration

Chose the correct answer from the options given below:

1. A (IV), B (I), C (II), D (III)

2. A (I), B (II), C (III), D (IV)

3. A (IV), B (III), C (II), D (I)

4. A (I), B (IV), C (II), D (III)

Options:

2105291917. 1

2105291918. 2

2105291919.3

2105291920.4

Question Number: 61 Question Id: 210529481 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

	List I	List II
Α.	Dithiocarbamate	I. Metalaxyl
В.	Oxathin	II. Fosetyl-al
C.	Acylalanine	III. Mancozeb
D.	Organophosphate	IV. Carboxin

Chose the correct answer from the options given below:

1. A (IV), B (III), C (II), D (I)

2. A (I), B (II), C (III), D (IV)

3. A (III), B (IV), C (II), D (I)

4. A (III), B (IV), C (I), D (II)

Options:

2105291921. 1

2105291922. 2

2105291923.3

2105291924.4

Question Number: 62 Question Id: 210529482 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

L	ist I	List II I. Nematodes	
Α.	Baiting		
В.	Ooze test	II. Bacteria	
C.	Elisa	III. Fungi	
D.	Baermann-funnel technique	IV. Virus	

Chose the correct answer from the options given below:

1. A (I), B (II), C (III), D (IV)

2. A (III), B (II), C (IV), D (I)

3. A (IV), B (III), C (II), D (I)

4. A (II), B (I), C (III), D (IV)

Options:

2105291925. 1

2105291926. 2

2105291927.3

2105291928.4

Question Number: 63 Question Id: 210529483 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Two genes are linked or not can be ascertained by:

- 1. F-test
- 2. t-test
- 3. Chi-square test
- 4. Z-test

Options:

2105291929. 1

2105291930. 2

2105291931.3

Question Number: 64 Question Id: 210529484 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Foliar plant pathogens are pigmented in nature and cause crop losses in major staple crops in the world as

- A. Pigments help them to tolerate high radiation
- B. They cause diseases only on monocots
- C. They cause diseases only on dicots
- D. They move from one plant to another plant with the help of wind
- E. They cause polycyclic diseases

Choose the correct answer from the options given below:

1. A, B, C Only

2. B, C, D Only

3. C, D, E Only

4. A, D, E Only

Options:

2105291933.1

2105291934.2

2105291935.3

2105291936.4

Question Number: 65 Question Id: 210529485 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Certain plant pathogens do not live at the site of the symptom or symptomate plant niche

- A. They only transfer virulent factors to host
- B. Plant attracts the virulence factors by its chemical signals
- C. This kind of pathogen survive in the rhizosphere of the infected plant
- D. Virulence factors can be cultured on media
- E. Infected plant can be recovered with time

Choose the correct answer from the options given below:

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

Options:

2105291937. 1

2105291938. 2

2105291939.3

2105291940.4

Question Number: 66 Question Id: 210529486 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Rishitin is a phytoalexin produced by

- 1. Cotton
- 2. Potato
- 3. Pepper
- 4. Pea

Options:

2105291941.1

2105291942. 2

2105291943.3

Question Number: 67 Question Id: 210529487 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Vertical resistance is useful in crop improvement programme for importing resistance

- A. Because of their monogenic nature
- B. Because of their polygenic nature
- C. The pathogen can break their resistance by evolving new race
- D. The pathogen cannot break this resistance
- E. Vertical resistance will work against biotrophic pathogens

Choose the correct answer from the options given below:

1. A, B, C Only

2. B, C, D Only

3. A, C, E Only

4. C, D, E Only

Options:

2105291945.1

2105291946. 2

2105291947.3

2105291948.4

Question Number: 68 Question Id: 210529488 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Water potential values of biological system are always

- 1. Positive
- 2. Negative
- 3. Both positive and negative
- 4. Neutral

Options:

2105291949.1

2105291950. 2

2105291951.3

2105291952.4

Question Number: 69 Question Id: 210529489 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Cell theory was put forward by

- 1. Singh & Nicolsan
- 2. Leeuwenhoek
- 3. Schleiden & Schwann
- 4. Calvin & Malvin

Options:

2105291953.1

2105291954. 2

2105291955.3

2105291956.4

Question Number: 70 Question Id: 210529490 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

End product of Glycolysis is

- 1. Acetyl CoA
- 2. Pyruvic acid
- 3. Glucose-I-Phosphate
- 4. Fructose-I-Phosphate

Options:

2105291957.1

2105291958. 2

2105291959.3

2105291960.4

Question Number: 71 Question Id: 210529491 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Chief functions of leaves are

- 1. Gaseous exchange and photosynthesis
- 2. Respiration and photosynthesis
- 3. Respiration and Digestion
- 4. Respiration and gaseous exchange

Options:

2105291961.1

2105291962. 2

2105291963.3

2105291964.4

Question Number: 72 Question Id: 210529492 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Translocation of carbohydrates in plants usually occurs in the form of

- 1. Glucose
- 2. Maltose
- 3. Starch
- 4. Sucrose

Options:

2105291965.1

2105291966. 2

2105291967. 3

2105291968.4

Question Number: 73 Question Id: 210529493 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The first product to be tagged with GI in India is:

- 1. Assam Tea
- 2. Nilgiri Tea
- 3. Darjeeling tea
- 4. Organic tea

Options:

2105291969. 1

2105291970. 2

2105291971.3

2105291972.4

Question Number: 74 Question Id: 210529494 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

The isolation distance required for production of certified seeds of maize composite variety is:

- 1. 200 m
- 2.300 m
- 3. 100 m
- 4.50 m

Options:

2105291973.1

2105291974. 2

2105291975.3

2105291976.4

Question Number: 75 Question Id: 210529495 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The seed dormancy can be detected by

- 1. Vigor test
- 2. Germination test
- 3. Tetrazolium test
- 4. Purity test

Options:

2105291977. 1

2105291978. 2

2105291979.3

2105291980.4

Question Number: 76 Question Id: 210529496 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

A crop variety enjoys legal protection in India, provided it is:

- 1. Developed by a breeder in a government organization
- 2. Registered with the PPV & FR Authority
- 3. Cultivated in a large area
- 4. Released by any Variety Release Committee

Options:

2105291981.1

2105291982. 2

2105291983.3

2105291984.4

Question Number: 77 Question Id: 210529497 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The tag for Breeders Seed is issued by:

- 1. State Seed Certification Agency
- 2. Central Seed Certification Agency
- 3. Concerned Breeder of the variety
- 4. Independent organization operated under the state government

Options:

2105291985.1

2105291986. 2

2105291987.3

2105291988.4

Question Number: 78 Question Id: 210529498 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

At the minimum, how many years of multi-location testing is required for a conventionally bred genotype to be released as a new variety?

- 1. 2 years
- 2. 3 years
- 3. 4 years
- 4. 5 years

Options:

2105291989. 1

2105291990.2

2105291991.3

2105291992.4

Question Number: 79 Question Id: 210529499 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

In which of the following seed storage conditions, the longevity of the seeds would be maximum?

- 1. Normal ambient storage
- 2. Moisture proof storage
- 3. Dehumidified with low temperature (5-8 °C) storage
- 4. Dehumidified storage only

Options:

2105291993.1

2105291994. 2

2105291995.3

2105291996.4

Question Number: 80 Question Id: 210529500 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Which of the following stages of cell division is primarily arrested by treating with colchicine, used in polyploidization of plants?

- 1. Anaphase
- 2. Telophase
- 3. Interphase
- 4. Metaphase

Options:

2105291997. 1

2105291998. 2

2105291999. 3

2105292000.4

Question Number: 81 Question Id: 210529501 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The genome of Triticale is designated as

- 1. AABB
- 2. AABBCC
- 3. AABBDD
- 4. AABBRR

Options:

2105292001.1

2105292002. 2

2105292003.3

2105292004.4

Question Number: 82 Question Id: 210529502 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

When two self-incompatible but cross-compatible parental lines are inter-planted, the seeds harvested from both the self-incompatible lines will be:

- 1. Composite seeds
- 2. Selfed seeds
- 3. Hybrid seeds
- 4. Inbred seeds

Options:

2105292005. 1

2105292006. 2

2105292007.3

2105292008.4

Question Number: 83 Question Id: 210529503 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

In a cross (AaBbCCDdEE) x (AABbCcDdEe), what is the probability that any particular gamete from the female parent will be AbCdE?

- 1. 1/4
- 2. 1/6
- 3. 1/16
- 4. 1/8

Options:

2105292009. 1

2105292010. 2

2105292011.3

2105292012. 4

Question Number: 84 Question Id: 210529504 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

The allelic combination of the variety 1 is AAbbCCddEE and has the phenotype of 6 yield units. The allelic combination of variety 2 is aaBBccDDee and has 4 yield units. What would be the yield unit and heterosis (over the better parent) unit of the F_1 (if there is complete dominance)?

- 1. 6 and 4
- 2. 10 and 6
- 3. 10 and 4
- 4. 4 and 4

Options:

2105292013.1

2105292014. 2

2105292015. 3

2105292016.4

Question Number: 85 Question Id: 210529505 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which of the following plant cell organelles is considered as semi-autonomous?

- 1. Endoplasmic reticulum
- 2. Mitochondria
- 3. Golgibody complex
- 4. Lysosomes

Options:

2105292017. 1

2105292018. 2

2105292019.3

2105292020.4

Question Number: 86 Question Id: 210529506 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Which of the following is an INCORRECT statement about hybrids?

- 1. Can be produced only in cross-pollinated crop species
- 2. Exploits both GCA and SCA components
- 3. Are highly homogenous
- 4. Genetic constitution changes over generations

Options:

2105292021. 1

2105292022. 2

2105292023.3

2105292024.4

Question Number: 87 Question Id: 210529507 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

In a crop, genes 'C' and 'P' are required for the development of color in the flowers. The white flowers are produced in the absence of either or both the genes. What will be the percentage of colored flowers in the off-springs of the cross CcPP x ccPp?

- 1.50%
- 2.25%
- 3.75%
- 4. 100%

Options:

2105292025.1

2105292026. 2

2105292027.3

2105292028.4

Question Number: 88 Question Id: 210529508 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

A cultivar developed through population improvement approach can be maintained indefinitely with proper identity through:

- 1. Pure line selection
- 2. Random mating in isolation
- 3. Selfing in isolation
- 4. Top crossing

Options:

2105292029.1

2105292030. 2

2105292031.3

2105292032.4

Question Number: 89 Question Id: 210529509 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

What is the probability when both parents with blood type 'A' and normal vision (not colourblind) produce their 1st son, who has blood type 'O' and is colour blind?

- 1. 1/2
- 2. 1/4
- 3. 1/8
- 4. 1/16

Options:

2105292033.1

2105292034. 2

2105292035.3

2105292036.4

Question Number: 90 Question Id: 210529510 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The possible number of 'triplet' codons from 6 different types of nucleotides in the DNA molecule is:

- $1.(6)^3$
- $2.(3)^6$
- 3. (6)⁶
- $4.(3)^3$

Options:

2105292037.1

2105292038. 2

2105292039.3

2105292040.4

Question Number : 91 Question Id : 210529511 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical

Correct Marks: 4 Wrong Marks: 1

In a sexually reproducing organism, the chromosome number in the progeny does not double even after fertilization. The reason is that the male and female gametes contain:

- 1. Quarter set of somatic chromosomes
- 2. Half-set of the somatic chromosomes
- 3. Full set of the somatic chromosomes
- 4. Inhibitor that destroys the extra chromosomes

Options:

- 2105292041. 1
- 2105292042. 2
- 2105292043.3
- 2105292044.4

Question Number: 92 Question Id: 210529512 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

An organism has haploid chromosome number 7. The probability that a sperm produced by it will contain all the 7 chromosomes whose centromeres were derived from the maternal homologue is:

- $1.(1/2)^{1}$
- $2.(1/2)^3$
- 3. (1/2)⁵
- $4.(1/2)^7$

Options:

2105292045.1

2105292046. 2

2105292047. 3

2105292048.4

Question Number: 93 Question Id: 210529513 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

 ${\bf Mandatory: No\ Single\ Line\ Question\ Option: No\ Option\ Orientation: Vertical}$

Correct Marks: 4 Wrong Marks: 1

How many linkage groups are present in maize (Zea mays L.)?

- 1.10
- 2.20
- 3.12
- 4.13

Options:

- 2105292049.1
- 2105292050. 2
- 2105292051.3
- 2105292052.4

Question Number: 94 Question Id: 210529514 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The gene A-B-D are present in one chromosome in the coupling phase of linkage. One of the double cross-over gametes has A-b-D gene combination. The gene which was in the middle of the sequence is:

- 1. A
- 2. B
- 3. D
- 4. Cannot determine

Options:

2105292053.1

2105292054. 2

2105292055.3

2105292056.4

Question Number: 95 Question Id: 210529515 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The yield of inbred A is 40 q/ha, inbred B is 20 q/ha, check hybrid yield is 45 q/ha and the yield of hybrid (A x B) is 50 q/ha. The standard heterosis (%) is:

- 1.25%
- 2.11.1%
- 3.66.6%
- 4.50%

Options:

2105292057.1

2105292058.2

2105292059.3

Question Number: 96 Question Id: 210529516 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

'Stock 6' is a haploid inducer line of:

- 1. Wheat
- 2. Maize
- 3. Rice
- 4. Sorghum

Options:

2105292061.1

2105292062. 2

2105292063.3

2105292064.4

Question Number: 97 Question Id: 210529517 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Wandatory: No Single Line Question Option: No Option Orientation

Correct Marks: 4 Wrong Marks: 1

What are the genotypes that will be included in the trial for the estimation of heterobeltiosis?

- 1. F₁ hybrid developed and the parental lines
- 2. F₁ hybrid and commercially released hybrid (check)
- 3. F₁ hybrid developed only
- 4. Parental lines and commercially released hybrid (check)

Options:

- 2105292065.1
- 2105292066. 2
- 2105292067.3
- 2105292068.4

Question Number: 98 Question Id: 210529518 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The hormone needed for cell division during germination of seed is:

- 1. Gibberelin
- 2. Abscisic acid
- 3. Cytokinin
- 4. Ethylin

Options:

2105292069.1

2105292070. 2

2105292071.3

2105292072.4

Question Number: 99 Question Id: 210529519 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question

Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

To estimate the genetic diversity of germplasm collection, a technique involving multivariate analysis based on ordination giving graphical representation is:

- 1. D² analysis
- 2. Principal Component Analysis
- 3. Cluster analysis
- 4. Linkage analysis

Options:

2105292073.1

2105292074.2

2105292075.3

2105292076.4

Question Number: 100 Question Id: 210529520 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

Minimum standard of seed germination (%) for seed certification in maize is:

- 1.80
- 2.85
- 3.90
- 4.75

Options:

- 2105292077.1
- 2105292078. 2
- 2105292079.3
- 2105292080.4

Question Number: 101 Question Id: 210529521 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Correct Marks: 4 Wrong Marks: 1

The purity standard of certified seeds of carrot is:

- 1.95%
- 2.98%
- 3.97%
- 4.70%

Options:

- 2105292081.1
- $2105292082.\ 2$
- 2105292083.3
- 2105292084.4

Question Number: 102 Question Id: 210529522 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Identify the correct statement(s) about 'speed breeding'

A. It is targeted to reduce the breeding cycle of a crop

B. It manipulates photoperiod and temperature to enhance crop maturity

C. It is done in open field condition

D. It was initially used to grow crops in the 'space station'

E. It increases both vegetative and reproductive phases of the plants

Choose the correct answer from the options given below:

1. A, B, C only

2. B, C, D only

3. C, D, E only

4. A, B, D only

Options:

2105292085. 1

2105292086. 2

2105292087. 3

2105292088.4

Question Number: 103 Question Id: 210529523 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Identify the correct order of activities followed for testing and release of crop varieties:

- A. Multi-location testing
- B. Station trial
- C. Variety identification
- D. Release and notification
- E. Seed multiplication and distribution

Choose the correct answer from the options given below:

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

Options:

- 2105292089. 1
- 2105292090. 2
- 2105292091.3
- 2105292092.4

Question Number: 104 Question Id: 210529524 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

As per Seymour Benzer, a unit of mutation (muton) and unit of recombination (recon), respectively represent:

- A. Single gene and any pair of genes
- B. Single nucleotide and any adjacent pairs of nucleotide
- C. Single gene and any homologous pair of chromosomes
- D. Single nucleotide and any single gene
- E. Deletion mutants and any cross-over gene

Choose the correct answer from the options given below:

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

Options:

2105292093.1

2105292094. 2

2105292095.3

2105292096.4

Question Number: 105 Question Id: 210529525 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

In the Hershey and Chase experiment, ³²P and ³⁵S were used because:

- A. Both P and S are absent in RNA
- B. P and S both are present in DNA and protein
- C. P is present in DNA and S is present in protein only
- D. Selective labeling of DNA and protein can be done ^{32}P and ^{35}S
- E. Both are easily available in gaseous form

Choose the correct answer from the options given below:

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

Options:

2105292097. 1

2105292098. 2

2105292099.3

2105292100.4

Question Number: 106 Question Id: 210529526 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Arrange the operations in seed processing in correct order:

- A. Cleaning and grading
- B. Drying
- C. Seed treatment
- D. Seed testing
- E. Bagging and labelling

Choose the correct answer from the options given below:

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

Options:

- 2105292101. 1
- 2105292102. 2
- 2105292103.3
- 2105292104.4

Question Number: 107 Question Id: 210529527 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I (Genotype)		List II	
		(Population)	
Α.	Inbred lines	I. Homozygous and heterogenous	
В.	3-way cross hybrid	II. Homozygous and homogeneous	
C.	Single cross hybrid	III. Heterozygous and heterogenous	
D.	Multiline	IV. Heterozygous and homogenous	

Choose the correct answer from the options given below:

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

Options:

2105292105. 1

2105292106. 2

2105292107.3

2105292108.4

Question Number: 108 Question Id: 210529528 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I		List II	
(Theory)		(Scientist who proposed)	
Α.	Cell theory	I. Clarence P Oliver	
	Chromosomal theory of	II. Schleiden, Schwann, and	
inh	eritance	Virchow	
C.	Divisibility of gene	III. Vernon Ingram	
D.	One gene-one polypeptide	IV. Walter Sutton and Theodor Boveri	

Choose the correct answer from the options given below:

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

Options:

- 2105292109. 1
- 2105292110.2
- 2105292111.3
- 2105292112.4

Question Number: 109 Question Id: 210529529 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I	List II		
(Organelle)	(Function)		
A. Mitochondria	I. Packaging protein, lipid, and phospholipid for transport to other cells		
B. Endoplasmic reticulum	II. Oxidation of carbohydrate, lipid, and protein		
C. Lysosomes	III. Digestion of intra-cellular substances and foreign material		
D. Golgi complex	IV. Provide passage for mRNA from nucleus to cytoplasm		

Choose the correct answer from the options given below:

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

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

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

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

Options:

2105292113.1

2105292114. 2

2105292115.3

2105292116.4

Question Number: 110 Question Id: 210529530 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I		List II	
(Class of seed)		(Color of tag)	
Α.	Breeders seed	I. No tags are used	
В.	Nucleus seed	II. Golden brown	
C.	Certified seed	III. Azure blue	
D.	Foundation seed	IV. White	

Choose the correct answer from the options given below:

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

Options:

- 2105292117. 1
- 2105292118. 2
- 2105292119.3
- 2105292120.4

Question Number: 111 Question Id: 210529531 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

	List I	List II
Α.	Double cross hybrid	I. Standard heterosis
В.	F1 hybrid	II. Mid-parent heterosis
C.	Average heterosis	III. F _{1 (A × B)} x F _{1 (C × D)}
D.	Economic heterosis	IV. Single cross hybrid

Choose the correct answer from the options given below:

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

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

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

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

Options:

2105292121. 1

2105292122. 2

2105292123.3

2105292124.4

Question Number: 112 Question Id: 210529532 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

List I		List II	
(Organization)		(Location)	
A. Ins	International Water Management titute	I. Lima, Peru	
В.	International Rice Research Institute	II. Ibadan, Nigeria	
C. Agı	International Institute of Tropical riculture	III. Colombo, Sri Lanka	
D.	International Centre for Potato	IV. Los Banos, Philippines	

Choose the correct answer from the options given below:

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

Options:

2105292125. 1

2105292126. 2

2105292127. 3

2105292128.4

Question Number: 113 Question Id: 210529533 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: When one dominant allele of one gene and recessive allele of another gene are present on one chromosome and their opposite alleles are present on the homologous chromosome, the arrangement is called Cis-heterozygote

Statement II: When the dominant alleles of two genes are present on one chromosome and their corresponding recessive alleles are present on the homologous chromosome, the arrangement is called Cis-heterozygote

In the light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105292129. 1

2105292130. 2

2105292131.3

2105292132.4

Question Number: 114 Question Id: 210529534 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Inbreeding depression is the loss of vigour and fertility due to homozygosity of deleterious recessive alleles

Statement II: Inbreeding depression is due to loss of vigour and fertility due to heterozygosity of recessive alleles

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105292133. 1

2105292134. 2

2105292135.3

2105292136.4

Question Number: 115 Question Id: 210529535 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Cleistogamy and chasmogamy favour self-fertilization

Statement II: Male sterility and self-incompatibility do not favor cross-fertilization

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105292137. 1

2105292138. 2

2105292139.3

2105292140.4

Question Number: 116 Question Id: 210529536 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Cis-trans test can assign mutant alleles to the same or different genes but cannot estimate the map distance

Statement II: Recombination frequency can be used to estimate map distance between mutant loci

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105292141.1

2105292142. 2

2105292143.3

2105292144.4

Question Number: 117 Question Id: 210529537 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Hybrids are heterozygous and homogenous

Statement II: Pure lines are heterozygous and heterogenous

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105292145. 1

2105292146. 2

2105292147. 3

2105292148.4

Question Number: 118 Question Id: 210529538 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Kosambi's mapping function considers the absence of interference (I)

Statement II: Halden's mapping function considers the presence of interference (I)

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105292149. 1

2105292150. 2

2105292151.3

2105292152.4

Question Number: 119 Question Id: 210529539 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Higher the degree of cross-pollination in crops, more will be the isolation distance requirement

Statement II: Self-pollinated crops need more isolation distance like cross-pollinated crops

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105292153.1

2105292154. 2

2105292155.3

2105292156.4

Question Number: 120 Question Id: 210529540 Question Type: MCQ Option Shuffling: No Display Question Number: Yes Is

Question Mandatory: No Single Line Question Option: No Option Orientation: Vertical

Statement I: Light reaction takes place in the stroma

Statement II: Dark reaction takes place in grana

In light of the above statements, choose the **most appropriate** 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 correct but Statement II is false
- 4. Statement I is incorrect but Statement II is true

Options:

2105292157. 1

2105292158. 2

2105292159.3

2105292160.4