

4 Plant Pathology ICAR SEPT 2022

Topic:- GEN KNOW COMMON PHD

1) Colour of the tag used on certified seed bags is[Question ID = 16958][Question Description = 101_221_GKD_SEP22_Q01]

1. Blue [Option ID = 37829]
2. Purple [Option ID = 37830]
3. White [Option ID = 37831]
4. Golden Yellow [Option ID = 37832]

2) Following are the statements regarding the Usar soil -

- A. It is reclaimed by adding lime.
- B. This soil has pH more than seven.
- C. Paddy crop can be grown in this soil.

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

[Question ID = 16959][Question Description = 102_221_GKD_SEP22_Q02]

1. A and B only [Option ID = 37833]
2. B and C only [Option ID = 37834]
3. C only [Option ID = 37835]
4. A only [Option ID = 37836]

3) When total utility of a commodity increases, marginal utility will be

[Question ID = 16960][Question Description = 103_221_GKD_SEP22_Q03]

1. Negative but increasing
[Option ID = 37837]
2. Positive but decreasing
[Option ID = 37838]
3. Constant
[Option ID = 37839]
4. Either positive or negative
[Option ID = 37840]

4) Where is the headquarter of International Fund for Agriculture Development located?

[Question ID = 16961][Question Description = 104_221_GKD_SEP22_Q04]

1. Vienna, Austria
[Option ID = 37841]
2. Rome, Italy
[Option ID = 37842]
3. New York, USA
[Option ID = 37843]
4. Berlin, Germany
[Option ID = 37844]

5) Mid-Oceanic Ridges are one of the important divisions of the ocean floor. In this respect, point out the incorrect statement regarding the 'Mid-Oceanic Ridges'. [Question ID = 16962][Question Description = 105_221_GKD_SEP22_Q05]

1. It is the largest mountain chain on the surface of the earth [Option ID = 37845]
2. It is a series of interconnected chain within the ocean. [Option ID = 37846]
3. It is characterised by a central rift system [Option ID = 37847]
4. The rift system at the crest is the zone of very low volcanic activity. [Option ID = 37848]

6) Consider the following facts about the union territory of India and point out the one which is incorrect in relation to union territory.[Question ID = 16963][Question Description = 106_221_GKD_SEP22_Q06]

1. These are the areas under the direct control of central government. [Option ID = 37849]
2. Also known as the 'centrally administered territories. [Option ID = 37850]

3. These territories constitute a conspicuous departure from the unitary feature of India. [Option ID = 37851]
4. There is no uniformity in their administrative systems. [Option ID = 37852]

7) Variety of flora and fauna are found in the different types of forest in India. In this regard, species of trees like teak, *sal shisham*, *sandalwood*, etc. are found in which of the following type of forests in India?[Question ID = 16964][Question Description = 107_221_GKD_SEP22_Q07]

1. Tropical evergreen forests [Option ID = 37853]
2. Tropical thorn forests [Option ID = 37854]
3. Tropical deciduous forests [Option ID = 37855]
4. Montane forests [Option ID = 37856]

8) The Marginal Preference Theory of consumption behaviour was proposed by

[Question ID = 16965][Question Description = 108_221_GKD_SEP22_Q08]

1. Armstrong
[Option ID = 37857]
2. J.K.Hicks
[Option ID = 37858]
3. Neumann
[Option ID = 37859]
4. Edmund Cannon
[Option ID = 37860]

9) Point out the incorrect statements regarding the service sector in India.[Question ID = 16966][Question Description = 109_221_GKD_SEP22_Q09]

1. It is the highest contributor to GDP [Option ID = 37861]
2. It requires skilled labour [Option ID = 37862]
3. It is the fastest growing sector [Option ID = 37863]
4. It is restricted to very few sectors. [Option ID = 37864]

10) Consider the statements regarding the agriculture sector in India and point out the incorrect statement.[Question ID = 16967][Question Description = 110_221_GKD_SEP22_Q10]

1. Agriculture sector is the largest employer of workforce [Option ID = 37865]
2. It has contributed to the Gross Value Added (GVA) [Option ID = 37866]
3. Growth in allied sectors is the major drivers of overall growth in the sector. [Option ID = 37867]
4. Minimum Support Price (MSP) policy is used as to promote crop uniformity. [Option ID = 37868]

11) In case of related goods, the cross elasticity of demand is[Question ID = 16968][Question Description = 111_221_GKD_SEP22_Q11]

1. Low [Option ID = 37869]
2. High [Option ID = 37870]
3. Zero [Option ID = 37871]
4. Unity [Option ID = 37872]

12) With reference to organic farming in India, consider the following statements :

- A. The National Programme for Organic Production' (NPOP) is operated under the guidelines and directions of the Union Ministry of Rural Development.
- B. The Agricultural and Processed Food Products Export Development Authority' (APEDA) functions as the Secretariat for the implementation of NPOP.
- C. Sikkim has become India's first fully organic state.

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

[Question ID = 16969][Question Description = 112_221_GKD_SEP22_Q12]

1. A and B only
[Option ID = 37873]
2. B and C only
[Option ID = 37874]
3. C only
[Option ID = 37875]
4. A, B and C

[Option ID = 37876]

13) With reference to the circumstances in Indian agriculture, the concept of "Conservation Agriculture" assumes significance. Which of the following falls under the Conservation Agriculture ?

- A. Avoiding the monoculture practices.
- B. Adopting minimum tillage.
- C. Avoiding the cultivation of plantation crops.
- D. Using crop residues to cover soil surface.
- E. Adopting spatial and temporal crop sequencing/ crop rotations.

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

[Question ID = 16970][Question Description = 113_221_GKD_SEP22_Q13]

- 1. A, C and D only [Option ID = 37877]
- 2. B, C, D and E only [Option ID = 37878]
- 3. B, D and E only [Option ID = 37879]
- 4. A, B, C and E only [Option ID = 37880]

14) Consumers are likely to get a variety of goods in which kind of market competition[Question ID = 16971][Question Description = 114_221_GKD_SEP22_Q14]

- 1. Monopoly [Option ID = 37881]
- 2. Duopoly [Option ID = 37882]
- 3. Oligopoly [Option ID = 37883]
- 4. Monopolistic [Option ID = 37884]

15) What is the correct chronological order of the following laws enacted for the conservation and protection of environment ?

- A. Environment (Protection) Act.
- B. Water (Prevention & Control of Pollution) Act.
- C. Air (Prevention & Control of pollution) Act.
- D. National Green Tribunal Act.

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

[Question ID = 16972][Question Description = 115_221_GKD_SEP22_Q15]

- 1. B, C, A, D [Option ID = 37885]
- 2. A, B, C, D [Option ID = 37886]
- 3. C, B, A, D [Option ID = 37887]
- 4. D, C, B, A [Option ID = 37888]

16) The scientific study of soil is[Question ID = 16973][Question Description = 116_221_GKD_SEP22_Q16]

- 1. Earth Study [Option ID = 37889]
- 2. Soil Science [Option ID = 37890]
- 3. Pedology [Option ID = 37891]
- 4. Soil Chemistry [Option ID = 37892]

17) *Triticum aestivum*, the common bread wheat is -

[Question ID = 16974][Question Description = 117_221_GKD_SEP22_Q17]

- 1. Tetraploid
[Option ID = 37893]
- 2. Hexaploid
[Option ID = 37894]
- 3. Haploid
[Option ID = 37895]
- 4. Diploid
[Option ID = 37896]

18) Sectoral inflation refers to[Question ID = 16975][Question Description = 118_221_GKD_SEP22_Q18]

- 1. Running inflation [Option ID = 37897]

2. Comprehensive inflation [Option ID = 37898]
3. Sporadic inflation [Option ID = 37899]
4. Creeping inflation [Option ID = 37900]

19) Keynes Liquidity trap refers to[Question ID = 16976][Question Description = 119_221_GKD_SEP22_Q19]

1. Speculative demand for money [Option ID = 37901]
2. Transactions motive of money is inelastic [Option ID = 37902]
3. Precautionary motive of money is inelastic [Option ID = 37903]
4. Transactions motive of money is constant [Option ID = 37904]

20) A business is solvent if[Question ID = 16977][Question Description = 120_221_GKD_SEP22_Q20]

1. Total receipts exceed total expenditures [Option ID = 37905]
2. Total debt exceeds total equity [Option ID = 37906]
3. Total sales exceed total cash expense [Option ID = 37907]
4. Total assets exceed total liabilities [Option ID = 37908]

Topic:- Crop Sc 2_PHD

1) Given below are two statements

Statement I : Effector proteins are recognized by Pattern Recognition Receptors of host

Statement II : Effector proteins of bacteria are secreted through Type III secretion system

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

[Question ID = 2601][Question Description = 101_110_BCS_SEP22_Q01]

1. Both statements I and statement II are correct [Option ID = 10401]
2. Both statements I and statement II are incorrect [Option ID = 10402]
3. Statement I is correct and statement II is incorrect [Option ID = 10403]
4. Statement I is incorrect and statement II is correct [Option ID = 10404]

2) Match list I with list II

List I	List II
A. <i>Micrococcus amylovora</i>	I. Anton De Bary
B. <i>Phytophthora infestans</i>	II. M. W. Beijerinck
C. Contagium vivum fluidum	III. T.O. Diener
D. Viroid	IV. T. J. Burill

Choose the correct answer from the options below:

[Question ID = 2602][Question Description = 102_110_BCS_SEP22_Q02]

1. A - IV, B - I, C - II, D - III [Option ID = 10405]
2. A - III, B - I, C - IV, D - II [Option ID = 10406]
3. A - II, B - I, C - IV, D - III [Option ID = 10407]
4. A - I, B - II, C - IV, D - III [Option ID = 10408]

3) Given below are two statements

Statement I : Many fungal pathogens produce toxins.

Statement II : Toxin does not act directly on protoplast components of the host.

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

[Question ID = 2603][Question Description = 103_110_BCS_SEP22_Q03]

1. Both statements I and statement II are correct [Option ID = 10409]
2. Both statements I and statement II are incorrect [Option ID = 10410]
3. Statement I is correct and statement II is incorrect [Option ID = 10411]
4. Statement I is incorrect and statement II is correct [Option ID = 10412]

4) Which pathogen is able to produce indole acetic acid to cause clubroot disease in cabbage?

[Question ID = 2604][Question Description = 104_110_BCS_SEP22_Q04]

1. *Alternaria brassicae* [Option ID = 10413]
2. *Peronospora parasitica* [Option ID = 10414]
3. *Plasmodiophora brassicae* [Option ID = 10415]

4. *Albugo candida* [Option ID = 10416]

5) Which of the microbes are used as bioagents to control plant diseases?

- A. *Trichoderma harzianum*
- B. *Pseudomonas putida*
- C. *Talaromyces flavus*
- D. *Pantoea stewartii*

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

[Question ID = 2605][Question Description = 105_110_BCS_SEP22_Q05]

- 1. A and B only [Option ID = 10417]
- 2. A, B and C only [Option ID = 10418]
- 3. A, C and D only [Option ID = 10419]
- 4. C and D only [Option ID = 10420]

6) Which genus of the virus has a single-stranded positive RNA and rod-shaped particles?

[Question ID = 2606][Question Description = 106_110_BCS_SEP22_Q06]

- 1. *Tobamovirus* [Option ID = 10421]
- 2. *Comovirus* [Option ID = 10422]
- 3. *Caulimovirus* [Option ID = 10423]
- 4. *Tospovirus* [Option ID = 10424]

7) Given below are two statements

Statement I : Satellite viruses do not cause infection to the plant, in absence of helper viruses.

Statement II. Satellite viruses act like parasites of the associated helper virus.

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

[Question ID = 2607][Question Description = 107_110_BCS_SEP22_Q07]

- 1. Both statements I and statement II are correct [Option ID = 10425]
- 2. Both statements I and statement II are incorrect [Option ID = 10426]
- 3. Statement I is correct and statement II is incorrect [Option ID = 10427]
- 4. Statement I is incorrect and statement II is correct [Option ID = 10428]

8) Match list I with list II

List I	List II
A. <i>Erwinia trachiefila</i>	I. <i>Xiphinema americanum</i>
B. Tomato ringspot virus	II. <i>Polymixa graminis</i>
C. Barley yellow dwarf virus	III. <i>Acalymma vittata</i>
D. Cucumber mosaic virus	IV. <i>Aphis gossypi</i>

Choose the correct answer from the options below:

[Question ID = 2608][Question Description = 108_110_BCS_SEP22_Q08]

- 1. A - IV, B - I, C - II, D - III
[Option ID = 10429]
- 2. A - III, B - I, C - II, D - IV
[Option ID = 10430]
- 3. A - II, B - III, C - IV, D - I
[Option ID = 10431]
- 4. A - I, B - II, C - IV, D - III
[Option ID = 10432]

9) In which crop, PRO- PLANT expert system has been developed for the management of diseases and insects?

- A. Tomato
- B. Potato

C. Mango

D. Sugar beet

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

[Question ID = 2609][Question Description = 109_110_BCS_SEP22_Q09]

1. A and B only [Option ID = 10433]
2. A, B and C only [Option ID = 10434]
3. A, C and D only [Option ID = 10435]
4. B and D only [Option ID = 10436]

10) Given below are two statements

Statement I : Biotroph can live and multiply only on another living organism.

Statement II : Plant diseases caused by a biotrophic pathogen cause necrosis.

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

[Question ID = 2610][Question Description = 110_110_BCS_SEP22_Q10]

1. Both statements I and statement II are correct
[Option ID = 10437]
2. Both statements I and statement II are incorrect
[Option ID = 10438]
3. Statement I is correct and statement II is incorrect
[Option ID = 10439]
4. Statement I is incorrect and statement II is correct
[Option ID = 10440]

11) Which disease is under the category of monocyclic?

A. Wilt

B. Blight

C. Loose smut

D. Rust

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

[Question ID = 2611][Question Description = 111_110_BCS_SEP22_Q11]

1. A and B only [Option ID = 10441]
2. A and C only [Option ID = 10442]
3. A, C and D only [Option ID = 10443]
4. B and D only [Option ID = 10444]

12) Which is not a component of a master mixture of PCR reaction?

[Question ID = 2612][Question Description = 112_110_BCS_SEP22_Q12]

1. Buffer [Option ID = 10445]
2. Sodium chloride [Option ID = 10446]
3. Taq polymerase [Option ID = 10447]
4. Magnesium chloride [Option ID = 10448]

13) Match list I with list II

List I	List II
A. Dichlone	I. Acylalanines
B. Metalaxyl	II. Morpholines
C. Tridemorph	III. Cyclohexamide
D. Actidione	IV. Quinone

Choose the correct answer from the options below:

[Question ID = 2613][Question Description = 113_110_BCS_SEP22_Q13]

1. A - IV, B - I, C - II, D - III [Option ID = 10449]

2. A - III, B - IV, C - I, D - II [Option ID = 10450]
3. A - III, B - IV, C - II, D - I [Option ID = 10451]
4. A - II, B - IV, C - I, D - IV [Option ID = 10452]

14) Which are the selective toxins produced by fungal pathogens?

- A. PM- toxin
- B. Marticin
- C. Tentoxin
- D. Victorin

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

[Question ID = 2614][Question Description = 114_110_BCS_SEP22_Q14]

1. A and B only [Option ID = 10453]
2. A, B and C only [Option ID = 10454]
3. A and D only [Option ID = 10455]
4. C and D only [Option ID = 10456]

15) What is the source of “Clandosan 618” a natural nematocide?[Question ID = 2615][Question Description = 115_110_BCS_SEP22_Q15]

1. Sesame freshly harvested seeds [Option ID = 10457]
2. Neem leaf water extract [Option ID = 10458]
3. Crabs and shrimp shells [Option ID = 10459]
4. Semi-decomposed wood biomass [Option ID = 10460]

16) In which year first report on *Heterodera avenae* was made in India?[Question ID = 2616][Question Description = 116_110_BCS_SEP22_Q16]

1. 1955 [Option ID = 10461]
2. 1958 [Option ID = 10462]
3. 1961 [Option ID = 10463]
4. 1962 [Option ID = 10464]

17) Which of the following nematodes, lack median bulb of oesophagus?

[Question ID = 2617][Question Description = 117_110_BCS_SEP22_Q17]

1. *Anguina* [Option ID = 10465]
2. *Subanguina* [Option ID = 10466]
3. *Nothanguina* [Option ID = 10467]
4. *Ditylenchus* [Option ID = 10468]

18) Given below are two statements

Statement I: 3rd and 4th stage juveniles of root-knot nematodes are non-feeding

Statement II: Only mature female of root-knot nematode is the feeding stage

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

[Question ID = 2618][Question Description = 118_110_BCS_SEP22_Q18]

1. Both Statement I and Statement II are true [Option ID = 10469]
2. Both Statement I and Statement II are false [Option ID = 10470]
3. Statement I is true but Statement II is false [Option ID = 10471]
4. Statement I is false but Statement II is true [Option ID = 10472]

19) Given below are two statements

Statement I: Bursal rays are present in *Aphelenchus avenae*

Statement II: Bursal rays are absent in *Aphelenchus avenae*

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

[Question ID = 2619][Question Description = 119_110_BCS_SEP22_Q19]

1. Both Statement I and Statement II are true [Option ID = 10473]
2. Both Statement I and Statement II are false [Option ID = 10474]
3. Statement I is true but Statement II is false [Option ID = 10475]
4. Statement I is false but Statement II is true [Option ID = 10476]

20) Match List I with List II

List I	List II
A. <i>Meloidogyne</i>	I. Potato
B. <i>Globodera</i>	II. Ring nematode
C. <i>Nacobbus</i>	III. Giant cells
D. <i>Criconeema</i>	IV. False root-knot nematode

Choose the correct answer from the options given below:

[Question ID = 2620][Question Description = 120_110_BCS_SEP22_Q20]

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

[Option ID = 10477]

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

[Option ID = 10478]

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

[Option ID = 10479]

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

[Option ID = 10480]

21) Match List I with List II

List I	List II
A. <i>Heterodera glycines</i>	I. Dry rot
B. <i>Ditylenchus angustus</i>	II. Yellow dwarf
C. <i>Bursaphelenchus xylophilus</i>	III. Pine wilt
D. <i>Scutellonema bradys</i>	IV. Ufra

Choose the correct answer from the options given below:

[Question ID = 2621][Question Description = 121_110_BCS_SEP22_Q21]

1. A-IV, B-III, C-I, D-II [Option ID = 10481]

2. A-I, B-IV, C-III, D-II [Option ID = 10482]

3. A-III, B-II, C-IV, D-I [Option ID = 10483]

4. A-II, B-IV, C-III, D-I [Option ID = 10484]

22) How long the second stage juvenile (J2) of *Anguina tritici* can survive in wheat galls?

[Question ID = 2622][Question Description = 122_110_BCS_SEP22_Q22]

1. 25 years

[Option ID = 10485]

2. 22 years

[Option ID = 10486]

3. 32 years

[Option ID = 10487]

4. 15 years

[Option ID = 10488]

23) Given below are two statements

Statement I: In *Pratylenchus* oesophageal glands overlap intestine ventrally

Statement II: In *Pratylenchus* oesophageal glands overlap intestine dorsally

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

[Question ID = 2623][Question Description = 123_110_BCS_SEP22_Q23]

1. Both Statement I and Statement II are true [Option ID = 10489]

2. Both Statement I and Statement II are false [Option ID = 10490]

3. Statement I is true but Statement II is false [Option ID = 10491]

4. Statement I is false but Statement II is true [Option ID = 10492]

24) Given below are two statements

Statement I: "Fenwick can" is used to extract large sized nematodes from soil

Statement II: "Fenwick can" is used to extract nematode eggs from soil

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

[Question ID = 2624][Question Description = 124_110_BCS_SEP22_Q24]

1. Both Statement I and Statement II are true [Option ID = 10493]
2. Both Statement I and Statement II are false [Option ID = 10494]
3. Statement I is true but Statement II is false [Option ID = 10495]
4. Statement I is false but Statement II is true [Option ID = 10496]

25) Which of the following nematodes lack 'bursa'?

[Question ID = 2625][Question Description = 125_110_BCS_SEP22_Q25]

1. *Atylenchus* [Option ID = 10497]
2. *Tylenchus* [Option ID = 10498]
3. *Basiria* [Option ID = 10499]
4. *Malenchus* [Option ID = 10500]

26) Given below are two statements

Statement I: The term Gamergate is referred to the unmated workers of Ponerinae

Statement II: The term Gamergate is referred to the mated workers of Formicinae

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

[Question ID = 2626][Question Description = 126_110_BCS_SEP22_Q26]

1. Both Statement I and Statement II are correct [Option ID = 10501]
2. Both Statement I and Statement II are incorrect [Option ID = 10502]
3. Statement I is correct but Statement II is incorrect [Option ID = 10503]
4. Statement I is incorrect but Statement II is correct [Option ID = 10504]

27) The mass production of EPN's is widely undertaken on the larvae of:

- A. *Ephestia*
- B. *Corcyra*
- C. *Galleria*
- D. *Phthorimoea*

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

[Question ID = 2627][Question Description = 127_110_BCS_SEP22_Q27]

1. A and B only [Option ID = 10505]
2. B and D only [Option ID = 10506]
3. A and D only [Option ID = 10507]
4. C only [Option ID = 10508]

28) 28. Given below are two statements

Statement I: Indian Myna was shipped to Mauritius way back in 1762 from India, for the control of red locust

Statement II: Young baby of a house sparrow is fed by the great father sparrow

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

[Question ID = 2628][Question Description = 128_110_BCS_SEP22_Q28]

1. Both Statement I and Statement II are correct
[Option ID = 10509]
2. Both Statement I and Statement II are incorrect
[Option ID = 10510]
3. Statement I is correct but Statement II is incorrect
[Option ID = 10511]
4. Statement I is incorrect but Statement II is correct
[Option ID = 10512]

29) Given below are two statements

Statement I: The interval between the moulting at larval stage in insects is known as instar

Statement II: The skins casted by the insect larva are known as exuviae

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

[Question ID = 2629][Question Description = 129_110_BCS_SEP22_Q29]

1. Both Statement I and Statement II are correct
[Option ID = 10513]
2. Both Statement I and Statement II are incorrect
[Option ID = 10514]
3. Statement I is correct but Statement II is incorrect
[Option ID = 10515]
4. Statement I is incorrect but Statement II is correct
[Option ID = 10516]

30) Match List I with List II

List I	List II
A. Antixenosis	I. Utilization of non-vital parts
B. Antibiosis	II. Natural enemies
C. Tolerance	III. Adverse effect on progeny
D. Extrinsic resistance	IV. Reduced colonization

Choose the correct answer from the options given below:

[Question ID = 2630][Question Description = 130_110_BCS_SEP22_Q30]

1. A-I, B-II, C-III, D-IV [Option ID = 10517]
2. A-II, B-III, C-IV, D-I [Option ID = 10518]
3. A-IV, B-III, C-I, D-II [Option ID = 10519]
4. A-I, B-II, C-IV, D-III [Option ID = 10520]

31) Match List I with List II

List I	List II
A. Para-pheromone	I. Elicit dispersal away from crowded food sources
B. Pro-pheromone	II. Helps to prevent wrong mating
C. Anti-pheromone	III. Not found in insects (external source pheromone)
D. Spacing pheromone	IV. Photolabile adduct to protect pheromone

Choose the correct answer from the options given below:

[Question ID = 2631][Question Description = 131_110_BCS_SEP22_Q31]

1. A-I, B-II, C-III, D-IV [Option ID = 10521]
2. A-II, B-III, C-IV, D-I [Option ID = 10522]
3. A-II, B-I, C-III, D-IV [Option ID = 10523]
4. A-III, B-IV, C-II, D-I [Option ID = 10524]

32) The flies associated in corpse, useful in criminal investigation are:

[Question ID = 2632][Question Description = 132_110_BCS_SEP22_Q32]

1. Fruit flies
[Option ID = 10525]
2. Blow flies
[Option ID = 10526]
3. Robber flies
[Option ID = 10527]
4. Hover flies
[Option ID = 10528]

33) Many of the necklace ornamentations are derived from which group of insects?

[Question ID = 2633][Question Description = 133_110_BCS_SEP22_Q33]

1. Springtails [Option ID = 10529]
2. Bristletails [Option ID = 10530]
3. Beetles [Option ID = 10531]
4. Lacewings [Option ID = 10532]

34) Given below are two statements

Statement I: Eggs of *Chilo partellus* are laid in patches on the maize plants

Statement II: Eggs of *Sesamia inferens* are parasitized by Trichogrammatids

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

[Question ID = 2634][Question Description = 134_110_BCS_SEP22_Q34]

1. Both Statement I and Statement II are correct
[Option ID = 10533]
2. Both Statement I and Statement II are incorrect
[Option ID = 10534]
3. Statement I is correct but Statement II is incorrect
[Option ID = 10535]
4. Statement I is incorrect but Statement II is correct
[Option ID = 10536]

35) Match List I with List II

List I	List II
A. Shoot borer larva	I. with dark brown head and 5 dark violet strikes
B. Internode borer larva	II. smooth white or cream coloured with a red coloured mid-dorsal line
C. Top borer larva	III. yellowish brown with brown head
D. Maize borer larva	IV. with light brown head and 4 violet or pink stripes

Choose the correct answer from the options given below:

[Question ID = 2635][Question Description = 135_110_BCS_SEP22_Q35]

1. A-I, B-IV, C-II, D-III [Option ID = 10537]
2. A-II, B-III, C-IV, D-I [Option ID = 10538]
3. A-II, B-I, C-III, D-IV [Option ID = 10539]
4. A-I, B-II, C-IV, D-III [Option ID = 10540]

36) Match List I with List II

List I	List II
A. Brown soft scale	I. <i>Parasaissetia nigra</i>
B. Black scales	II. <i>Ceroplastes</i> spp.
C. Yellow white scale	III. <i>Saissetia coffeae</i>
D. Chocolaty nymphs, adult females with white mealy substance	IV. <i>Nipaecoccus viridis</i>

Choose the correct answer from the options given below:

[Question ID = 2636][Question Description = 136_110_BCS_SEP22_Q36]

1. A-I, B-IV, C-II, D-III
[Option ID = 10541]
2. A-II, B-III, C-IV, D-I
[Option ID = 10542]
3. A-II, B-I, C-III, D-IV
[Option ID = 10543]
4. A-III, B-I, C-II, D-IV
[Option ID = 10544]

37) The wooly aphid, *Erisoma lanigerum* cause damage to apple trees like

- A. death of young plants
- B. galls on the roots
- C. curling and yellowing of the tender shoots
- D. cause white wooly patches on apple trunk

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

[Question ID = 2637][Question Description = 137_110_BCS_SEP22_Q37]

1. A, B and C only [Option ID = 10545]
2. A, B and D only [Option ID = 10546]
3. A, C and D only [Option ID = 10547]

4. B, C and D only [Option ID = 10548]

38) Match List I with List II

List I	List II
A. <i>Brevicoryne brassicae</i>	I. adults dark yellowish green and pear shaped
B. <i>Myzus persicae</i>	II. adults yellowish green to dark green on posterior side
C. <i>Aphis gossypii</i>	III. adults yellowish green with waxy filaments over the body
D. <i>Lipaphis erysimi</i>	IV. adults body egg shaped, posterior part rounded, dark patchy abdomen

Choose the correct answer from the options given below:

[Question ID = 2638][Question Description = 138_110_BCS_SEP22_Q38]

1. A-I, B-IV, C-II, D-III [Option ID = 10549]
2. A-II, B-III, C-IV, D-I [Option ID = 10550]
3. A-II, B-I, C-III, D-IV [Option ID = 10551]
4. A-III, B-IV, C-II, D-I [Option ID = 10552]

39) Given below are two statements

Statement I: “V-notching” of cotton leaf margin is due to feeding of white grub adults

Statement II: Eggs of *Sesamia inferens* are laid singly and not in patches on the substratum

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

[Question ID = 2639][Question Description = 139_110_BCS_SEP22_Q39]

1. Both Statement I and Statement II are correct
[Option ID = 10553]
2. Both Statement I and Statement II are incorrect
[Option ID = 10554]
3. Statement I is correct but Statement II is incorrect
[Option ID = 10555]
4. Statement I is incorrect but Statement II is correct
[Option ID = 10556]

40) The lady bird beetle that predominantly feeds on *Odium* spp is:

[Question ID = 2640][Question Description = 140_110_BCS_SEP22_Q40]

1. *Henosepilachna vigintioctopunctata*
[Option ID = 10557]
2. *Propylea dissecta*
[Option ID = 10558]
3. *Illeis cincta*
[Option ID = 10559]
4. *Adonia variegata*
[Option ID = 10560]

41) Given below are two statements

Statement I: CSRTI, Mysuru deals with various silkworm races of *Bombyx mori*

Statement II: CSRTI, Pampore deals with Bivoltine silkworm races of *Bombyx mori*

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

[Question ID = 2641][Question Description = 141_110_BCS_SEP22_Q41]

1. Both Statement I and Statement II are correct [Option ID = 10561]
2. Both Statement I and Statement II are incorrect [Option ID = 10562]
3. Statement I is correct but Statement II is incorrect [Option ID = 10563]
4. Statement I is incorrect but Statement II is correct [Option ID = 10564]

42) Given below are two statements

Statement I: Female larva of mulberry silk worm is identified by the presence of Ishiwata's glands

Statement II: *Bombyx mori* attains diapause at egg stage

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

[Question ID = 2642][Question Description = 142_110_BCS_SEP22_Q42]

1. Both Statement I and Statement II are correct
[Option ID = 10565]
2. Both Statement I and Statement II are incorrect
[Option ID = 10566]
3. Statement I is correct but Statement II is incorrect
[Option ID = 10567]
4. Statement I is incorrect but Statement II is correct
[Option ID = 10568]

43) Given below are two statements

Statement I: The term “Queen of Textiles” is referred to the superior quality & fineness of silkworm filaments

Statement II: “Queen of Textiles” is referred to the superior quality & fineness of artificial silk thread and fabric

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

[Question ID = 2643][Question Description = 143_110_BCS_SEP22_Q43]

1. Both Statement I and Statement II are correct
[Option ID = 10569]
2. Both Statement I and Statement II are incorrect
[Option ID = 10570]
3. Statement I is correct but Statement II is incorrect
[Option ID = 10571]
4. Statement I is incorrect but Statement II is correct
[Option ID = 10572]

44) Match List I with List II

List I	List II
A. CTRTI	I. Tamil Nadu
B. CMERTI	II. Jharkhand
C. CSRTI	III. Assam
D. CSGRC	IV. Karnataka

Choose the correct answer from the options given below:

[Question ID = 2644][Question Description = 144_110_BCS_SEP22_Q44]

1. A-I, B-II, C-III, D-IV
[Option ID = 10573]
2. A-II, B-I, C-IV, D-III
[Option ID = 10574]
3. A-II, B-III, C-IV, D-I
[Option ID = 10575]
4. A-I, B-II, C-IV, D-III
[Option ID = 10576]

45) Match List I with List II

List I	List II
A. Muga silk worm	I. Sal
B. Tasar silk worm	II. Castor
C. Chinese tasar silk worm	III. Som
D. Eri silk worm	IV. Oak

Choose the correct answer from the options given below:

[Question ID = 2645][Question Description = 145_110_BCS_SEP22_Q45]

1. A-I, B-II, C-III, D-IV [Option ID = 10577]
2. A-II, B-IV, C-I, D-III [Option ID = 10578]
3. A-III, B-I, C-IV, D-II [Option ID = 10579]
4. A-II, B-I, C-III, D-IV [Option ID = 10580]

46) Pebrine infected larvae of muga silk worm are due to:

[Question ID = 2646][Question Description = 146_110_BCS_SEP22_Q46]

1. Bacteria
[Option ID = 10581]
2. Virus
[Option ID = 10582]
3. Protozoa
[Option ID = 10583]
4. Fungi
[Option ID = 10584]

47) Match List I with List II

List I	List II
A. Calcified cocoon	I. Uzi fly, a parasitoid of silk worm larvae
B. Tachinid	II. Rough silk enveloping a silkworm's cocoon
C. Dinear	III. Fungus
D. Floss	IV. Thickness of the filament

Choose the correct answer from the options given below:

[Question ID = 2647][Question Description = 147_110_BCS_SEP22_Q47]

1. A-I, B-II, C-III, D-IV [Option ID = 10585]
2. A-II, B-IV, C-I, D-III [Option ID = 10586]
3. A-II, B-I, C-III, D-IV [Option ID = 10587]
4. A-III, B-I, C-IV, D-II [Option ID = 10588]

48) The oval shaped cocoon of silk worm is a characteristic feature of

[Question ID = 2648][Question Description = 148_110_BCS_SEP22_Q48]

1. Japanese breeds [Option ID = 10589]
2. European breeds [Option ID = 10590]
3. Indian breeds [Option ID = 10591]
4. Chinese breeds [Option ID = 10592]

49) Juvenile hormone is secreted by

[Question ID = 2649][Question Description = 149_110_BCS_SEP22_Q49]

1. Sub oesophageal ganglion [Option ID = 10593]
2. Corpora allata [Option ID = 10594]
3. Corpora cardiaca [Option ID = 10595]
4. Neurosecretory cells [Option ID = 10596]

50) Commercially exploited mulberry varieties in India belongs to

[Question ID = 2650][Question Description = 150_110_BCS_SEP22_Q50]

1. *Morus indica* [Option ID = 10597]
2. *Morus serrata* [Option ID = 10598]
3. *Morus alba* [Option ID = 10599]
4. *Morus lavigata* [Option ID = 10600]

Topic:- 4 Plant Pathology_PHD

1) In which year, of apple scab epidemic caused by *Venturia inaequalis* occurred in Kashmir?

[Question ID = 2651][Question Description = 101_111_PPG_SEP22_Q01]

1. 1978 [Option ID = 10601]
2. 1983 [Option ID = 10602]
3. 1973 [Option ID = 10603]
4. 1993 [Option ID = 10604]

2) Match List I with List II

List I	List II
Inventor	Invention

A. E. F. Smith	I. Wild fire toxin
B. D. W. Dye	II. <i>Micrococcus amylovorus</i>
C. T. J. Burill	III. Introduced pathovar system
D. A. C. Braun	IV. Validation of bacteria as a plant pathogen

Choose the correct answer from the options given below:

[Question ID = 2652][Question Description = 102_111_PPG_SEP22_Q02]

1. A-IV, B-III, C-II, D-I [Option ID = 10605]
2. A-III, B-IV, C-I, D-II [Option ID = 10606]
3. A-II, B-III, C-IV, D-I [Option ID = 10607]
4. A-II, B-I, C-IV, D-III [Option ID = 10608]

3) Given below are two statements

Statement I: Virions of the family Geminiviridae are typically twinned.

Statement II: The genome of mastrevirus consists of a single circular DNA, 2.6 - 2.8 kb in size.

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

[Question ID = 2653][Question Description = 103_111_PPG_SEP22_Q03]

1. Both statements I and statement II are correct [Option ID = 10609]
2. Both statements I and statement II are incorrect [Option ID = 10610]
3. Statement I is correct and statement II is incorrect [Option ID = 10611]
4. Statement I is incorrect and statement II is correct [Option ID = 10612]

4) Which pathogen does not increase disease severity in plants by using ammonium fertilizer?

[Question ID = 2654][Question Description = 104_111_PPG_SEP22_Q04]

1. *Fusarium* sp. [Option ID = 10613]
2. *Plasmodiophora brassicae* [Option ID = 10614]
3. *Sclerotium rolfsii* [Option ID = 10615]
4. *Streptomyces scabies* [Option ID = 10616]

5) Which host Pisatin is associated with?

[Question ID = 2655][Question Description = 105_111_PPG_SEP22_Q05]

1. Pea [Option ID = 10617]
2. Capsicum [Option ID = 10618]
3. Sweet potato [Option ID = 10619]
4. Soybean [Option ID = 10620]

6) Match List I with List II

List I	List II
Disease	Country
A. Bacterial canker of tomato	I. Java
B. Black rot of crucifers	II. USA
C. Wart of potato	III. Australia
D. Wheat bunt	IV. Netherlands

Choose the correct answer from the options given below:

[Question ID = 2656][Question Description = 106_111_PPG_SEP22_Q06]

1. A-IV, B-I, C-II, D-III [Option ID = 10621]
2. A-II, B-I, C-IV, D-III [Option ID = 10622]
3. A-III, B-IV, C-II, D-I [Option ID = 10623]
4. A-III, B-II, C-IV, D-I [Option ID = 10624]

7) Given below are two statements

Statement I: Cell wall defense structures involve morphological changes in the cell wall being invaded by the pathogen.

Statement II: Callose papillae are deposited on the outer side of cell walls in response to invasion by fungal pathogens.

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

[Question ID = 2657][Question Description = 107_111_PPG_SEP22_Q07]

1. Both statements I and statement II are correct [Option ID = 10625]
2. Both statements I and statement II are incorrect [Option ID = 10626]
3. Statement I is correct and statement II is incorrect [Option ID = 10627]

4. Statement I is incorrect and statement II is correct [Option ID = 10628]

8) Which commercial bioagent product is based on *Trichoderma* sp.?

- A. Bioderma
- B. Aspire
- C. Mycostop
- D. Ecofit

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

[Question ID = 2658][Question Description = 108_111_PPG_SEP22_Q08]

- 1. A and B only [Option ID = 10629]
- 2. A, B and C only [Option ID = 10630]
- 3. A, B and D only [Option ID = 10631]
- 4. A and D only [Option ID = 10632]

9) Match List I with List II

List I	List II
Disease	Causal agent
A. Flag smut	I. <i>Tilletia foetida</i>
B. Loose smut	II. <i>Tilletia indica</i>
C. Karnal bunt	III. <i>Urocystis agropyrii</i>
D. Hill bunt	IV. <i>Ustilago tritici</i>

Choose the correct answer from the options given below:

[Question ID = 2659][Question Description = 109_111_PPG_SEP22_Q09]

- 1. A-IV, B-I, C-II, D-III [Option ID = 10633]
- 2. A-III, B-IV, C-II, D-I [Option ID = 10634]
- 3. A-II, B-III, C-IV, D-I [Option ID = 10635]
- 4. A-I, B-II, C-IV, D-III [Option ID = 10636]

10) Which fungus causes anthracnose disease in plants?

[Question ID = 2660][Question Description = 110_111_PPG_SEP22_Q10]

- 1. *Gloeosporium* [Option ID = 10637]
- 2. *Colletotrichum* [Option ID = 10638]
- 3. *Botrytis* [Option ID = 10639]
- 4. *Pestalotia* [Option ID = 10640]

11) Given below are two statements

Statement I: In next-generation sequencing, millions of small fragments of DNA can be sequenced at the same time.

Statement II: Pacific Biosciences sequencing method has read length > 10,000.

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

[Question ID = 2661][Question Description = 111_111_PPG_SEP22_Q11]

- 1. Both statements I and statement II are correct [Option ID = 10641]
- 2. Both statements I and statement II are incorrect [Option ID = 10642]
- 3. Statement I is correct and statement II is incorrect [Option ID = 10643]
- 4. Statement I is incorrect and statement II is correct [Option ID = 10644]

12) Given below are two statements

Statement I: Nucleic acid-based techniques are not the only methods to characterize bacterial pathogens.

Statement II: Multiplex -PCR is used for the detection of many bacteria simultaneously.

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

[Question ID = 2662][Question Description = 112_111_PPG_SEP22_Q12]

- 1. Both statements I and statement II are correct [Option ID = 10645]
- 2. Both statements I and statement II are incorrect [Option ID = 10646]
- 3. Statement I is correct and statement II is incorrect [Option ID = 10647]
- 4. Statement I is incorrect and statement II is correct [Option ID = 10648]

13) Which toxin is not produced by *Pseudomonas syringae* to play role in plant disease development?

[Question ID = 2663][Question Description = 113_111_PPG_SEP22_Q13]

1. Syringomycin [Option ID = 10649]
2. Oxalic acid [Option ID = 10650]
3. Coronatin [Option ID = 10651]
4. Tabtoxin [Option ID = 10652]

14) What is a suitable temperature for yellow rust of wheat caused by *Puccinia striiformis* f. sp. *tritici*?

[Question ID = 2664][Question Description = 114_111_PPG_SEP22_Q14]

1. 5 - 8°C [Option ID = 10653]
2. 16 - 20°C [Option ID = 10654]
3. 10 - 15°C [Option ID = 10655]
4. 23 - 28°C [Option ID = 10656]

15) Match List I with List II

List I	List II
Organism	Symptom
A. <i>Pectobacterium</i>	I. Gall
B. <i>Xanthomonas</i>	II. Wilt
C. <i>Rhodococcus</i>	III. Soft rot
D. <i>Ralstonia</i>	IV. Canker

Choose the correct answer from the options given below:

[Question ID = 2665][Question Description = 115_111_PPG_SEP22_Q15]

1. A-IV, B-I, C-III, D-II [Option ID = 10657]
2. A-III, B-IV, C-I, D-II [Option ID = 10658]
3. A-IV, B-II, C-I, D-III [Option ID = 10659]
4. A-IV, B-I, C-II, D-III [Option ID = 10660]

16) Given below are two statements

Statement I: Accumulation of melanins in the appressorium cell wall of *Pyricularia oryzae* is not necessary for successful penetration in the host.

Statement II: Rice blast is favored greatly by low nitrogen fertilization and night temperatures of about 20°C.

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

[Question ID = 2666][Question Description = 116_111_PPG_SEP22_Q16]

1. Both statements I and statement II are correct [Option ID = 10661]
2. Both statements I and statement II are incorrect [Option ID = 10662]
3. Statement I is correct and statement II is incorrect [Option ID = 10663]
4. Statement I is incorrect and statement II is correct [Option ID = 10664]

17) Given below are two statements

Statement I: Copper ion reacts with sulphhydryl groups of certain amino acids and causes denaturation of proteins of fungi.

Statement II: Copper is not the only ingredient in the Bordeaux mixture that is toxic to pathogens.

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

[Question ID = 2667][Question Description = 117_111_PPG_SEP22_Q17]

1. Both statements I and statement II are correct [Option ID = 10665]
2. Both statements I and statement II are incorrect [Option ID = 10666]
3. Statement I is correct and statement II is incorrect [Option ID = 10667]
4. Statement I is incorrect and statement II is correct [Option ID = 10668]

18) Match List I with List II

List I	List II
Race	Host
A. Leaf Roll virus	I. Mulberry
B. <i>Phyllactinia corylea</i>	II. Banana
C. <i>Fusarium oxysporum</i> and sp. <i>cubense</i>	III. Ginger
D. <i>Phythium myriotylum</i>	IV. Potato

Choose the correct answer from the options given below:

[Question ID = 2668][Question Description = 118_111_PPG_SEP22_Q18]

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

[Option ID = 10669]

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

[Option ID = 10670]

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

[Option ID = 10671]

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

[Option ID = 10672]

19) What is mechanism of action involved in vascular disease in plants?

A. Formation of tyloses

B. Plugging by compound polysaccharides

C. Production of IAA

D. Altered viscosity of tracheal fluids

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

[Question ID = 2669][Question Description = 119_111_PPG_SEP22_Q19]

1. A and B only

[Option ID = 10673]

2. A and C only

[Option ID = 10674]

3. A, B and C only

[Option ID = 10675]

4. A, B and D only

[Option ID = 10676]

20) Match List I with List II

List I	List II
Group	Example
A. Geminiviridae	I. Potato virus Y
B. Caulimoviridae	II. Bean golden yellow mosaic virus
C. Potyviridae	III. Banana bunchy top virus
D. Nanoviridae	IV. Rice tungro bacilliform virus

Choose the correct answer from the options given below:

[Question ID = 2670][Question Description = 120_111_PPG_SEP22_Q20]

1. A-IV, B-I, C-II, D-III [Option ID = 10677]

2. A-II, B-IV, C-I, D-III [Option ID = 10678]

3. A-III, B-I, C-IV, D-II [Option ID = 10679]

4. A-II, B-IV, C-III, D-I [Option ID = 10680]

21) Given below are two statements

Statement I: Avirulent strains of the same pathogen inhibit the development of the pathogen.

Statement II: In cross-protection, the mild strain of virus is not used to control viral diseases.

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

[Question ID = 2671][Question Description = 121_111_PPG_SEP22_Q21]

1. Both statements I and statement II are correct [Option ID = 10681]

2. Both statements I and statement II are incorrect [Option ID = 10682]

3. Statement I is correct and statement II is incorrect [Option ID = 10683]

4. Statement I is incorrect and statement II is correct [Option ID = 10684]

22) Match List I with List II

List I	List II
--------	---------

Disease	Pathogen
A. Stem end rot	I. <i>Penicillium digitatum</i>
B. Blue mold	II. <i>Geotrichum candidum</i>
C. Green mold	III. <i>Diaporthe citri</i>
D. Sour rot	IV. <i>Penicillium italicum</i>

Choose the correct answer from the options given below:

[Question ID = 2672][Question Description = 122_111_PPG_SEP22_Q22]

1. A-IV, B-I, C-II, D-III [Option ID = 10685]
2. A-I, B-II, C-IV, D-III [Option ID = 10686]
3. A-III, B-IV, C-I, D-II [Option ID = 10687]
4. A-III, B-I, C-IV, D-II [Option ID = 10688]

23) EPIDEM is a computer simulation programme for

[Question ID = 2673][Question Description = 123_111_PPG_SEP22_Q23]

1. Late blight [Option ID = 10689]
2. Early blight [Option ID = 10690]
3. Wilt [Option ID = 10691]
4. Soft rot [Option ID = 10692]

24) Match List I with List II

List I	List II
Inventor	Invention
A. Goodman	I. Rice dwarf disease
B. Hashimoto	II. Contagious living fluid
C. Beijerinck	III. Geminiviruses
D. Mc Clintock	IV. Cucumber mosaic virus

Choose the correct answer from the options given below:

[Question ID = 2674][Question Description = 124_111_PPG_SEP22_Q24]

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

[Option ID = 10693]

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

[Option ID = 10694]

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

[Option ID = 10695]

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

[Option ID = 10696]

25) Given below are two statements

Statement I: External application of salicylic acid does not activate the systemic acquired resistance in plants.

Statement II: PR-1 proteins do not directly inhibit microbial growth.

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

[Question ID = 2675][Question Description = 125_111_PPG_SEP22_Q25]

1. Both statements I and statement II are correct [Option ID = 10697]
2. Both statements I and statement II are incorrect [Option ID = 10698]
3. Statement I is correct and statement II is incorrect [Option ID = 10699]
4. Statement I is incorrect and statement II is correct [Option ID = 10700]

26) Which plasmid in *Rhizobium rhizogenes* is associated to root hair disease of tomato?

[Question ID = 2676][Question Description = 126_111_PPG_SEP22_Q26]

1. R-plasmid [Option ID = 10701]
2. F- plasmid [Option ID = 10702]
3. Ti- plasmid [Option ID = 10703]
4. Ri- plasmid [Option ID = 10704]

27) Match List I with List II

List I	List II
--------	---------

Vector	Virus
A. <i>Oplidium bornovanus</i>	I. Potato leaf roll virus
B. <i>Cuscuta subinclusa</i>	II. Tobacco rattle virus
C. <i>Xiphinema americanum</i>	III. Melon necrotic spot virus
D. <i>Trichodorus similis</i>	IV. Tobacco ring spot virus

Choose the correct answer from the options given below:

[Question ID = 2677][Question Description = 127_111_PPG_SEP22_Q27]

1. A-IV, B-I, C-II, D-III [Option ID = 10705]
2. A-III, B-I, C-IV, D-II [Option ID = 10706]
3. A-I, B-IV, C-II, D-III [Option ID = 10707]
4. A-II, B-III, C-IV, D-I [Option ID = 10708]

28) Which chemical is not belonging to antibiotics to control plant diseases?

[Question ID = 2678][Question Description = 128_111_PPG_SEP22_Q28]

1. Griseofulvin [Option ID = 10709]
2. Cyclohexamide [Option ID = 10710]
3. Polyenes [Option ID = 10711]
4. Cyprodinil [Option ID = 10712]

29) Which PCR based technique is used to improve the sensitivity of the primer to detect the pathogen?

A. Multiplex - PCR

B. Nested - PCR

C. Bio- PCR

D. Rep-PCR

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

[Question ID = 2679][Question Description = 129_111_PPG_SEP22_Q29]

1. A only [Option ID = 10713]
2. A and C only [Option ID = 10714]
3. B and C only [Option ID = 10715]
4. D only [Option ID = 10716]

30) Given below are two statements

Statement I: Cell membrane is an active site for the induction of defense mechanisms in the host against pathogens.

Statement II: The presence of active oxygen species affects the membranes.

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

[Question ID = 2680][Question Description = 130_111_PPG_SEP22_Q30]

1. Both statements I and statement II are correct
[Option ID = 10717]
2. Both statements I and statement II are incorrect
[Option ID = 10718]
3. Statement I is correct and statement II is incorrect
[Option ID = 10719]
4. Statement I is incorrect and statement II is correct
[Option ID = 10720]

31) Match List I with List II

List I	List II
Disorder	Causal agent
A. Little leaf of apple	I. Molybdenum deficiency
B. Whip-tail of cauliflower	II. Inadequate oxygen
C. Blackheart of potato	III. Calcium deficiency
D. Cork pit in apple	IV. Zinc deficiency

Choose the correct answer from the options given below:

[Question ID = 2681][Question Description = 131_111_PPG_SEP22_Q31]

1. A-IV, B-III, C-II, D-I [Option ID = 10721]
2. A-III, B-I, C-IV, D-II [Option ID = 10722]
3. A-IV, B-I, C-II, D-III [Option ID = 10723]
4. A-IV, B-I, C-III, D-II [Option ID = 10724]

32) A subgroup within a biological species or race usually of a single or a few new characters is called?

[Question ID = 2682][Question Description = 132_111_PPG_SEP22_Q32]

1. Isolate [Option ID = 10725]
2. Strain [Option ID = 10726]
3. Biotype [Option ID = 10727]
4. Race [Option ID = 10728]

33) Which toxins are host specific to work as a virulence factor for the development of the disease in the plant?

- A. AM-toxin
- B. Tabtoxin
- C. HS-toxin
- D. Pyricularin

Choose the correct answer from the options given below:

[Question ID = 2683][Question Description = 133_111_PPG_SEP22_Q33]

1. A only [Option ID = 10729]
2. A and C [Option ID = 10730]
3. A, B and C [Option ID = 10731]
4. D only [Option ID = 10732]

34) Given below are two statements

Statement I: Plasmodesmatal size exclusion limit may not be increased for the movement of the virus.

Statement II: The movement proteins are molecular chaperons to bind the viral genome.

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

[Question ID = 2684][Question Description = 134_111_PPG_SEP22_Q34]

1. Both statements I and statement II are correct [Option ID = 10733]
2. Both statements I and statement II are incorrect [Option ID = 10734]
3. Statement I is correct and statement II is incorrect [Option ID = 10735]
4. Statement I is incorrect and statement II is correct [Option ID = 10736]

35) Match list I with list II

List I	List II
A. PTO	I. Encodes nucleotide binding protein
B. Xa21	II. Encodes protein signals transducing kinase
C. HM	III. Encode receptor proteins
D. L6	IV. Detoxifying enzymes

Choose the correct answer from the options below:

[Question ID = 2685][Question Description = 135_111_PPG_SEP22_Q35]

1. A - IV, B - I, C - II, D - III [Option ID = 10737]
2. A - IV, B - III, C - I, D - II [Option ID = 10738]
3. A - II, B - III, C - IV, D - I [Option ID = 10739]
4. A - III, B - I, C - II, D - IV [Option ID = 10740]

36) Which is a phloem-limited but culturable bacterium to cause plant disease?

[Question ID = 2686][Question Description = 136_111_PPG_SEP22_Q36]

1. *Spiroplasma* [Option ID = 10741]
2. *Phytoplasma* [Option ID = 10742]
3. *Liberobacter* [Option ID = 10743]
4. *Xylella* [Option ID = 10744]

37) Given below are two statements

Statement I: Plasmodium is a covered, multinucleate mass of protoplasm.

Statement II: Plasmodium feeds in an amoeboid fashion such as the somatic phase of *Myxomycetozoa*.

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

[Question ID = 2687][Question Description = 137_111_PPG_SEP22_Q37]

1. Both statements I and statement II are correct [Option ID = 10745]
2. Both statements I and statement II are incorrect [Option ID = 10746]
3. Statement I is correct and statement II is incorrect [Option ID = 10747]
4. Statement I is incorrect and statement II is correct [Option ID = 10748]

38) When a disease occurs all over the world and causes mass mortality is called:

[Question ID = 2688][Question Description = 138_111_PPG_SEP22_Q38]

1. Epiphytotic [Option ID = 10749]
2. Pandemic [Option ID = 10750]
3. Sporadic [Option ID = 10751]
4. Endemic [Option ID = 10752]

39) Match List I with List II

List I	List II
Chemical	Pathogen
A. Kasugamycin	I. <i>Ustilago nuda</i>
B. Dodine	II. <i>Magnaporthe grisea</i>
C. Dicarboximide	III. <i>Venturia inaequalis</i>
D. Carboxanilides	IV. <i>Botrytis cinerea</i>

Choose the correct answer from the options given below:

[Question ID = 2689][Question Description = 139_111_PPG_SEP22_Q39]

1. A-IV, B-I, C-II, D-III [Option ID = 10753]
2. A-IV, B-III, C-I, D-II [Option ID = 10754]
3. A-II, B-III, C-IV, D-I [Option ID = 10755]
4. A-III, B-I, C-IV, D-II [Option ID = 10756]

40) Which of the enzymes produced by bacterial pathogens are part of the degrading the cell wall of plants?

- A. Cellulase
- B. Polygalacturonase
- C. Pectinmethylesterase
- D. Endoglucanase

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

[Question ID = 2690][Question Description = 140_111_PPG_SEP22_Q40]

1. A only [Option ID = 10757]
2. A and C only [Option ID = 10758]
3. A, B and C only [Option ID = 10759]
4. A, B and D only [Option ID = 10760]

41) Which fungal pathogen is not associated with wilt disease in the plants?

[Question ID = 2691][Question Description = 141_111_PPG_SEP22_Q41]

1. *Fusarium oxysporum* f. sp. *lycopersici*

[Option ID = 10761]

2. *Botryosphaeria obtusa*

[Option ID = 10762]

3. *Ceratocystis fagacearum*

[Option ID = 10763]

4. *Verticillium dahliae*

[Option ID = 10764]

42) Given below are two statements

Statement I: *Dendrophthoe* is a warm climate shrub and semi-parasites of a tree trunk.

Statement II: The leathery and evergreen leaves possess chlorophyll and synthesize carbohydrates.

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

[Question ID = 2692][Question Description = 142_111_PPG_SEP22_Q42]

1. Both statements I and statement II are correct [Option ID = 10765]
2. Both statements I and statement II are incorrect [Option ID = 10766]
3. Statement I is correct and statement II is incorrect [Option ID = 10767]
4. Statement I is incorrect and statement II is correct [Option ID = 10768]

43) Match List I with List II

List I	List II
Disease	Causal agent
A. Red rust	I. <i>Albugo candida</i>
B. Brown rust	II. <i>Cephaleuros parasiticus</i>
C. Black rust	III. <i>Puccinia recondita tritici</i>
D. White rust	IV. <i>Puccinia graminis</i> f. sp. <i>tritici</i>

Choose the correct answer from the options given below:

[Question ID = 2693][Question Description = 143_111_PPG_SEP22_Q43]

1. A-IV, B-I, C-II, D-III [Option ID = 10769]
2. A-IV, B-III, C-I, D-II [Option ID = 10770]
3. A-II, B-III, C-IV, D-I [Option ID = 10771]
4. A-III, B-I, C-IV, D-II [Option ID = 10772]

44) Gene pyramiding of Xa 5 + Xa 13 and Xa 21 has been done in rice crops against which disease?

[Question ID = 2694][Question Description = 144_111_PPG_SEP22_Q44]

1. Blast [Option ID = 10773]
2. False smut [Option ID = 10774]
3. Bacterial leaf blight [Option ID = 10775]
4. Brown spot [Option ID = 10776]

45) What is the application of satellite RNAs?

- A. Genetic modification
- B. Expression of foreign gene
- C. Gene silencing
- D. Help in encapsidation

Choose the correct answer from the options given below:

[Question ID = 2695][Question Description = 145_111_PPG_SEP22_Q45]

1. A only [Option ID = 10777]
2. A and C [Option ID = 10778]
3. A, B and C [Option ID = 10779]
4. D only [Option ID = 10780]

46) Which is not a part of the total system approach of IPM?

[Question ID = 2696][Question Description = 146_111_PPG_SEP22_Q46]

1. Maintain the pest population below economic damage threshold [Option ID = 10781]
2. Reduce the level of pesticide [Option ID = 10782]
3. Complete eradication of the pathogen from the field [Option ID = 10783]
4. No damage of non target organism [Option ID = 10784]

47) Match List I with List II

List I	List II
Fungus	Character
A. <i>Sphaceloma</i>	I. 3 to many-celled dark conidia
B. <i>Marssonina</i>	II. 1- celled light coloured conidia
C. <i>Pestalotia</i>	III. Filiform 1 to many-celled light coloured conidia
D. <i>Cylindrosporium</i>	IV. 2-celled conidia, light coloured conidia

Choose the correct answer from the options given below:

[Question ID = 2697][Question Description = 147_111_PPG_SEP22_Q47]

1. A-IV, B-I, C-II, D-III [Option ID = 10785]
2. A-IV, B-III, C-I, D-II [Option ID = 10786]
3. A-II, B-IV, C-I, D-III [Option ID = 10787]
4. A-III, B-I, C-IV, D-II [Option ID = 10788]

48) A differential reaction occurs among genotypes of the host and genotypes of the pathogen is called:

[Question ID = 2698][Question Description = 148_111_PPG_SEP22_Q48]

1. Dilatory Resistance [Option ID = 10789]
2. Specific resistance [Option ID = 10790]
3. General resistance [Option ID = 10791]
4. Discriminatory resistance [Option ID = 10792]

49) Chip disease caused by *Candidatus Liberibacter* is associated with which crop?

- A. Potato
- B. Tomato
- C. Cauliflower
- D. Banana

Choose the correct answer from the options given below:

[Question ID = 2699][Question Description = 149_111_PPG_SEP22_Q49]

1. A only [Option ID = 10793]
2. B only [Option ID = 10794]
3. A and B [Option ID = 10795]
4. A and D [Option ID = 10796]

50) Given below are two statements

Statement I: Rust fungi are obligate parasites in nature.

Statement II: Some rust fungi can be cultured on an artificial special medium.

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

[Question ID = 2700][Question Description = 150_111_PPG_SEP22_Q50]

1. Both Statement I and Statement II are correct [Option ID = 10797]
2. Both Statement I and Statement II are incorrect [Option ID = 10798]
3. Statement I is correct and Statement II is incorrect [Option ID = 10799]
4. Statement I is incorrect and Statement II is correct [Option ID = 10800]