62 Agronomy 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 Secreatariat 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 f 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:- Natural Resource Mgmt 2_PHD

1) The maximum permissible limit of biuret in urea as per FCO for foliar application is

[Question ID = 16353][Question Description = 101_152_NRM2_SEP22_Q01]

1. <0.25

   [Option ID = 35409]
2. >1.00%

   [Option ID = 35410]
3. <2.5%

   [Option ID = 35411]
4. <0.5%

   [Option ID = 35412]

2) Following are the statements about Molybdenum (Mo)

A. It comes under the category of beneficial elements

B. It is absorbed by plants as Mo O_4^{2-}

C. It moves to plant roots largely through diffusion

D. Deficiency of Mo increase with a decrease in soil pH

E. Deficiency of Mo can be prevented or overcome through seed treatment prior to planting or by spraying it on crop foliage

Choose the *correct* answer from the options given below

[Question ID = 16354][Question Description = 102_152_NRM2_SEP22_Q02]

1. A, C and D

   [Option ID = 35413]
2. B, C and E

   [Option ID = 35414]
3. B, D and E

   [Option ID = 35415]
4. A, C and E

   [Option ID = 35416]

3) Given below are two statements
Statement I: Generally, a large fraction of the carbon fixed prior to the seed filling is remobilized towards seed

Statement II: A small amount of photosynthates currently assimilated are utilized by the tissues that are currently growing actively, prior to seed filling

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

[Question ID = 16355][Question Description = 103_152_NRM2_SEP22_Q03]

1. Both Statement I and Statement II are correct [Option ID = 35417]
2. Both Statement I and Statement II are incorrect [Option ID = 35418]

3. Statement I is correct but Statement II is incorrect [Option ID = 35419]
4. Statement I is incorrect but Statement II is correct [Option ID = 35420]

4) Frost-stress tolerant rapeseed-mustard varieties are

[Question ID = 16356][Question Description = 104_152_NRM2_SEP22_Q04]

1. Pusa Mustard 26 and Navgold [Option ID = 35421]
2. RGN 145 and Vardan [Option ID = 35422]
3. Pusa Gold and Geeta [Option ID = 35423]
4. RH 819 and RGN 48 [Option ID = 35424]

5) Which type of cotton provides the highest ginning percentage?

[Question ID = 16357][Question Description = 105_152_NRM2_SEP22_Q05]

1. *Gossypium barbadense* [Option ID = 35425]
2. *Gossypium hirsutum* [Option ID = 35426]
3. *Gossypium arboreum* [Option ID = 35427]
4. No variation of ginning percentage among different types of cotton [Option ID = 35428]

6) Which among the following experimental designs is the least accurate one?

[Question ID = 16358][Question Description = 106_152_NRM2_SEP22_Q06]

1. CRD [Option ID = 35429]
2. RCBD [Option ID = 35430]
3. Split-plot Design [Option ID = 35431]
4. Strip-plot Design [Option ID = 35432]

7) When the yellow sarson should be harvested to obtain the highest oil content in seeds?[Question ID = 16359][Question Description = 107_152_NRM2_SEP22_Q07]

1. 27 days after flowering [Option ID = 35433]
2. 37 days after flowering [Option ID = 35434]
3. 47 days after flowering [Option ID = 35435]
4. 67 days after flowering [Option ID = 35436]

8) A wetland wooden plough ordinarily covers about _____ ha area in eight hours for the first puddling.[Question ID = 16360][Question Description = 108_152_NRM2_SEP22_Q08]

1. 0.28 [Option ID = 35437]
2. 0.24 [Option ID = 35438]
3. 0.16 [Option ID = 35439]
4. 0.10 [Option ID = 35440]

9) Maize and pigeonpea are sown in 250 m^2 in 1:1 ratio in replacement series of intercropping. The production of maize and pigeonpea from this intercropping is 150 and 25 kg, respectively. What is the intercrop yield of pigeonpea in q/ha?

[Question ID = 16361][Question Description = 109_152_NRM2_SEP22_Q09]

1. 2000 [Option ID = 35441]
2. 20 [Option ID = 35442]
3. 1000 [Option ID = 35443]
4. 10 [Option ID = 35444]

10) For a given level of soil fertility, decrease in soil moisture supply is associated with a definite increase in concentration of which nutrient in plant tissue?[Question ID = 16362][Question Description = 110_152_NRM2_SEP22_Q10]

1. Nitrogen [Option ID = 35445]
2. Phosphorus [Option ID = 35446]
3. Potassium [Option ID = 35447]
4. Calcium [Option ID = 35448]

11) Which anti-nutritional factor present in lentil reacts with lysine and methionine and reduces their availability during digestion process in human body?

[Question ID = 16363][Question Description = 111_152_NRM2_SEP22_Q11]

1. Phytic acid [Option ID = 35449]
2. Condensed tannins [Option ID = 35450]
3. Saponins [Option ID = 35451]
4. Phytolecithins [Option ID = 35452]

12) Which of the nitrogenous fertilizers has the highest salt index value

[Question ID = 16364][Question Description = 112_152_NRM2_SEP22_Q12]

1. Ammonium sulphate [Option ID = 35453]
2. Ammonium chloride [Option ID = 35454]
3. Ammonium nitrate [Option ID = 35455]
4. Calcium ammonium nitrate [Option ID = 35456]

13) Soil most suitable for corrugation irrigation

[Question ID = 16365][Question Description = 113_152_NRM2_SEP22_Q13]

1. Saline soil [Option ID = 35457]
2. Clay soil [Option ID = 35458]
3. Loam soil [Option ID = 35459]
4. Sandy soil [Option ID = 35460]

14) Equipment that provides a direct measure of the tenacity with which water is held by the soils

[Question ID = 16366][Question Description = 114_152_NRM2_SEP22_Q14]

1. Tensiometer [Option ID = 35461]
2. Pressure plate equipment [Option ID = 35462]
3. Neutron moisture meter [Option ID = 35463]
4. Gypsum block [Option ID = 35464]

15) In the "stability series" of weatherability of minerals, the least stable mineral which has independent tetrahedron is:

[Question ID = 16367][Question Description = 115_152_NRM2_SEP22_Q15]

1. Olivine [Option ID = 35465]
2. Biotite [Option ID = 35466]
3. Amphiboles [Option ID = 35467]
4. Mg-pyroxenes [Option ID = 35468]

16) The Universal Soil Loss Equation (USLE) as presented by expression $(A = R \times K \times L \times S \times C \times P)$ is proposed by:

[Question ID = 16368][Question Description = 116_152_NRM2_SEP22_Q16]

1. Wischmeier and Smith (1978) [Option ID = 35469]
2. Wischmeier (1959) [Option ID = 35470]
3. Zingg (1940) [Option ID = 35471]
4. Smith (1941) [Option ID = 35472]

17) As per International Union of Soil Sciences (IUSS), the size (diameter) of silt is:

[Question ID = 16369][Question Description = 117_152_NRM2_SEP22_Q17]

1. 0.002 mm [Option ID = 35473]
2. 0.02 mm [Option ID = 35474]
3. 0.2 mm [Option ID = 35475]
4. 2.0 mm [Option ID = 35476]

18) Given below are two statements
Statement I: The configuration of land surface is known as 'topography' or relief.

Statement II: Topography influences soil formation primarily through its effects on modifying water and temperature relations.

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

[Question ID = 16370][Question Description = 118_152_NRM2_SEP22_Q18]

1. Both Statement I and Statement II are true [Option ID = 35477]
2. Both Statement I and Statement II are false [Option ID = 35478]
3. Statement I is true but Statement II is false [Option ID = 35479]
4. Statement I is false but Statement II is true [Option ID = 35480]

19) The pedogenic process involving removal of silica from soil and accumulation of sesquioxides (goethite, gibbsite, *etc*.) with or without the formation of iron stone and concretions is known as:

[Question ID = 16371][Question Description = 119_152_NRM2_SEP22_Q19]

1. Ferruginisation [Option ID = 35481]
2. Podzolization [Option ID = 35482]
3. Laterization [Option ID = 35483]
4. Baunification [Option ID = 35484]

20) *Kaolinite group* of minerals includes a number of clay minerals such as:

A. Kaolinite

B. Halloysite

C. Dickite

D. Phlogopite

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

[Question ID = 16372][Question Description = 120_152_NRM2_SEP22_Q20]

1. A, B and C only [Option ID = 35485]
2. A, B and D only [Option ID = 35486]
3. A, C and D only [Option ID = 35487]
4. B, C and D only [Option ID = 35488]

21) Adsorption process involves accumulation of the substance adsorbed[Question ID = 16373][Question Description = 121_152_NRM2_SEP22_Q21]

1. Throughout the body of the substance adsorbing it. [Option ID = 35489]
2. On the surface of the adsorbing substance. [Option ID = 35490]
3. In a solution in contact with the adsorbing substance. [Option ID = 35491]
4. Below the adsorbing substance. [Option ID = 35492]

22) Micronutrient cations are extracted with DTPA extractant which consisted of:[Question ID = 16374][Question Description = 122_152_NRM2_SEP22_Q22]

1. 0.05 *M* DTPA + 0.1 M TEA + 0.01 M $CaCl_2$ [Option ID = 35493]
2. 0.05 *M* DTPA + 0.1 M TEA + 0.1 M $CaCl_2$ [Option ID = 35494]
3. 0.005 *M* DTPA + 0.1 M TEA + 0.01 M $CaCl_2$ [Option ID = 35495]
4. 0.05 *M* DTPA + 0.1 M TEA + 0.1 M $CaCl_2$ [Option ID = 35496]

23) A number of temporary yet dramatic changes occur in the NH_3 retention zone after application of anhydrous NH_3 in soil. These are:

A. A retention zone of both ammonia (NH_3) and ammonium (NH_4^+) having circular to oval shape (3-13 cm diameter) is formed.

B. The concentrations of both NH_3 and NH_4^+ are increased in the range of 1000-3000 ppm.

C. Concentration of NO_2^- (nitrite) is increased to toxic levels (100-300 ppm) because *Nitrobacter* is much more sensitive to high pH (9.0-9.5) than *Nitrosomonas*.

D. Population of microorganisms increased tremendously because free NH_3 (non-ionized NH_4) is less toxic to plants, animals, microorganisms.

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

[Question ID = 16375][Question Description = 123_152_NRM2_SEP22_Q23]

1. A, B and D only [Option ID = 35497]
2. A, B and C only [Option ID = 35498]
3. A, C and D only [Option ID = 35499]
4. B, C and D only [Option ID = 35500]

24) When a soil solution is concentrated four times, the activity ratio of potassium (K)-calcium (Ca) in solution will[Question ID = 16376][Question Description = 124_152_NRM2_SEP22_Q24]

1. Increase eight times [Option ID = 35501]
2. Decrease two times [Option ID = 35502]
3. Increase two times [Option ID = 35503]
4. Decrease four times [Option ID = 35504]

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

Assertion A: Nickel is associated with nitrogen metabolism by way of influencing urease activity.

Reason R: In systems where urea is used as the sole N fertilizer for foliar spray and nickel supply is poor, lower urease activity causes urea toxicity to the foliage and leads to severe necrosis of the root tips.

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

[Question ID = 16377][Question Description = 125_152_NRM2_SEP22_Q25]

1. Both **A** and **R** are true and **R** is the correct explanation of **A** [Option ID = 35505]
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A** [Option ID = 35506]
3. **A** is true but **R** is false [Option ID = 35507]
4. **A** is false but **R** is true [Option ID = 35508]

26) Match List I with List II

List I	List II
A. Iron	I. Eriochrome Black T
B. Boron	II. Ferric alum
C. Chlorine	III. Orthophenanthroline
D. Calcium	IV. Azomethine-H

Choose the correct answer from the options given below:

[Question ID = 16378][Question Description = 126_152_NRM2_SEP22_Q26]

1. A-II, B-I, C-IV, D-III [Option ID = 35509]
2. A-IV, B-II, C-III, D-I [Option ID = 35510]
3. A-III, B-IV, C-II, D-I [Option ID = 35511]
4. A-I, B-III, C-II, D-IV [Option ID = 35512]

27) "Contaf" is a trade name of[Question ID = 16379][Question Description = 127_152_NRM2_SEP22_Q27]

1. Hexaconazole [Option ID = 35513]
2. Propiconazole [Option ID = 35514]
3. Imidacloprid [Option ID = 35515]
4. Cyhalothrin [Option ID = 35516]

28) Which of the following two pesticides should NOT be stored together?

[Question ID = 16380][Question Description = 128_152_NRM2_SEP22_Q28]

1. Insecticide and fungicide [Option ID = 35517]
2. Fungicide and rodenticide [Option ID = 35518]
3. Fungicide and plant growth regulator [Option ID = 35519]
4. Insecticide and herbicide [Option ID = 35520]

29) Diflubenzuron is an example of[Question ID = 16381][Question Description = 129_152_NRM2_SEP22_Q29]

1. Ecdysone inhibitor [Option ID = 35521]
2. Herbicide [Option ID = 35522]
3. Chitin synthesis inhibitor [Option ID = 35523]
4. Plant growth regulator [Option ID = 35524]

30) Rubber is an example of[Question ID = 16382][Question Description = 130_152_NRM2_SEP22_Q30]

1. Monoterpene [Option ID = 35525]
2. Diterpene [Option ID = 35526]
3. Triterpene [Option ID = 35527]
4. Polyterpene [Option ID = 35528]

31) Number of carbon present in monoterpene[Question ID = 16383][Question Description = 131_152_NRM2_SEP22_Q31]

1. 5 [Option ID = 35529]
2. 10 [Option ID = 35530]
3. 15 [Option ID = 35531]
4. 20 [Option ID = 35532]

32) Which crop can tolerate the exchangable sodium percentage of 70 better than crops?

[Question ID = 16384][Question Description = 132_152_NRM2_SEP22_Q32]

1. Rice

   [Option ID = 35533]
2. Barley

   [Option ID = 35534]
3. Beets

   [Option ID = 35535]
4. Mustard

   [Option ID = 35536]

33) A 10 mg propiconazole in 1 L solvent makes solution concentration of

[Question ID = 16385][Question Description = 133_152_NRM2_SEP22_Q33]

1. 0.01 ppm [Option ID = 35537]
2. 0.001 ppm [Option ID = 35538]
3. 0.1 ppm [Option ID = 35539]
4. 1 ppm [Option ID = 35540]

34) Calculate the concentration of the solution (0.1gm/ml) when it is diluted 100 times

[Question ID = 16386][Question Description = 134_152_NRM2_SEP22_Q34]

1. 0.1 ppm [Option ID = 35541]
2. 1.0 ppm [Option ID = 35542]
3. 10.0 ppm [Option ID = 35543]
4. 0.01 ppm [Option ID = 35544]

35) Piperonyl butoxide is a[Question ID = 16387][Question Description = 135_152_NRM2_SEP22_Q35]

1. Fungicide [Option ID = 35545]
2. Insecticide [Option ID = 35546]
3. Herbicide safener [Option ID = 35547]
4. Isecticide synergist [Option ID = 35548]

36) Total number of pesticides registered in India till date range between

[Question ID = 16388][Question Description = 136_152_NRM2_SEP22_Q36]

1. 280-290 [Option ID = 35549]
2. 290-300 [Option ID = 35550]
3. 300-310 [Option ID = 35551]
4. 310-320 [Option ID = 35552]

37) According to recent data, which of the following groups of pesticides is being used maximum by farmers worldwide?

[Question ID = 16389][Question Description = 137_152_NRM2_SEP22_Q37]

1. Rodenticide [Option ID = 35553]
2. Herbicide [Option ID = 35554]
3. Fungicide [Option ID = 35555]
4. Insecticide [Option ID = 35556]

38) Jasmolin is linked to[Question ID = 16390][Question Description = 138_152_NRM2_SEP22_Q38]

1. *Tanacetum* sp [Option ID = 35557]
2. *Eucalyptus* sp [Option ID = 35558]
3. *Cynodon* sp [Option ID = 35559]
4. *Phalaris* sp [Option ID = 35560]

39) Kakrapara project was implemented on the river

[Question ID = 16391][Question Description = 139_152_NRM2_SEP22_Q39]

1. Chenab

   [Option ID = 35561]
2. Tapti

   [Option ID = 35562]
3. Godavari

   [Option ID = 35563]
4. Koyana

   [Option ID = 35564]

40) The founding Chairman of Central Water Commission

[Question ID = 16392][Question Description = 140_152_NRM2_SEP22_Q40]

1. Dr. B.R. Ambedkar [Option ID = 35565]
2. Dr. R. K. Gupta [Option ID = 35566]
3. Dr. A. N. Khosla [Option ID = 35567]
4. Dr. Rajendra Prasad [Option ID = 35568]

41) The ICAR was bestowed with 'the King Baudouin Development Prize International' in 1989 and 2004. The King Baudouin Foundation (KBF) was set up on the occasion of the 25th anniversary of King Baudouin's reign to sponser the award is based in which country?

[Question ID = 16393][Question Description = 141_152_NRM2_SEP22_Q41]

1. Philippines

   [Option ID = 35569]
2. Indonesia

   [Option ID = 35570]
3. South Africa

   [Option ID = 35571]
4. Belgium

   [Option ID = 35572]

42) AMRUT 2.0 programme was launched on

[Question ID = 16394][Question Description = 142_152_NRM2_SEP22_Q42]

1. March 22, 2021 [Option ID = 35573]
2. March 12, 2021 [Option ID = 35574]
3. October 1, 2021 [Option ID = 35575]
4. April 24, 2022 [Option ID = 35576]

43) The foundation day of ICAR-Indian Institue of Water Management is[Question ID = 16395][Question Description = 143_152_NRM2_SEP22_Q43]

1. July 16 [Option ID = 35577]
2. February 22 [Option ID = 35578]
3. April 23 [Option ID = 35579]
4. May 12 [Option ID = 35580]

44) Publisher of 'Water Resources Management' journal[Question ID = 16396][Question Description = 144_152_NRM2_SEP22_Q44]

1. John Willey and Sons [Option ID = 35581]
2. Elsevier [Option ID = 35582]
3. Springer [Option ID = 35583]
4. Taylor and Francis [Option ID = 35584]

45) The Brahmaputra river enters at which place of Arunachal Pradesh in India?[Question ID = 16397][Question Description = 145_152_NRM2_SEP22_Q45]

1. Tawang [Option ID = 35585]
2. Bhalukpong [Option ID = 35586]
3. Changlang [Option ID = 35587]
4. Dihang [Option ID = 35588]

46) 'AMRUT' scheme is implmented by which ministry

[Question ID = 16398][Question Description = 146_152_NRM2_SEP22_Q46]

1. Ministry of Jal Shakti [Option ID = 35589]
2. Ministry of Environment, Forest and Climate Change [Option ID = 35590]
3. Ministry of Housing and Urban Affairs [Option ID = 35591]
4. Ministry of Agriculture and Farmers' Welfare [Option ID = 35592]

47) Soil moisture deficiency level for scheduling irrigation in jute[Question ID = 16399][Question Description = 147_152_NRM2_SEP22_Q47]

1. 40 - 50 % [Option ID = 35593]
2. 50 - 60 % [Option ID = 35594]
3. 60 - 70 % [Option ID = 35595]
4. 30 - 40 % [Option ID = 35596]

48) Water man of India[Question ID = 16400][Question Description = 148_152_NRM2_SEP22_Q48]

1. Pavan Sukhdev [Option ID = 35597]
2. Rattan Lal [Option ID = 35598]
3. Anna Hazare [Option ID = 35599]
4. Rajendra Singh [Option ID = 35600]

49) 'Bunga' watershed is located in

[Question ID = 16401][Question Description = 149_152_NRM2_SEP22_Q49]

1. Uttarakhand [Option ID = 35601]
2. Chandigarh [Option ID = 35602]

3. Madhya Pradesh [Option ID = 35603]
4. Chhatisgarh [Option ID = 35604]

50) The state having highest water resources

[Question ID = 16402][Question Description = 150_152_NRM2_SEP22_Q50]

1. Odisha [Option ID = 35605]
2. Punjab [Option ID = 35606]
3. Tamilnadu [Option ID = 35607]
4. Uttar Pradesh [Option ID = 35608]

Topic:- 62 Agronomy_PHD

1) The transitional stages of sequential changes from one vegetation community to other vegetation community are called[Question ID = 16153][Question Description = 101_153_AGR_SEP22_Q01]

1. Climax vegetation [Option ID = 34609]
2. Sere [Option ID = 34610]
3. Ecoline [Option ID = 34611]
4. Garigue [Option ID = 34612]

2) Match List I with List II

List I	List II
Terms	Given or coined by
A. Ecads	I. Plants growing perched on other plants using them only as support and not for water and food supply
B. Ecotypes	II. Environmentally induced variations
C. Epiphytes	III. Matrix formed by fungus, within cells of which an alga is embedded
D. Lianas	IV. Physiological races
E. Lichens	V. Vascular plants rooted in ground and maintain erectness of their stem by making use of other objects for support

Choose the correct answer from the options given below:

[Question ID = 16154][Question Description = 102_153_AGR_SEP22_Q02]

1. A-I, B-IV, C-II, D-V, E-III [Option ID = 34613]
2. A-II, B-IV, C-I, D-V, E-III [Option ID = 34614]
3. A-V, B-IV, C-I, D-III, E-II [Option ID = 34615]
4. A-III, B-I, C-IV, D-V, E-II [Option ID = 34616]

3) Find the correct order of countries according to decreasing area under linseed

[Question ID = 16155][Question Description = 103_153_AGR_SEP22_Q03]

1. Canada > USA > China > India > Afghanistan [Option ID = 34617]
2. Afghanistan > China > Canada > India > USA [Option ID = 34618]
3. India > China > Canada > USA > Afghanistan [Option ID = 34619]
4. Canada > India > China > USA > Afghanistan [Option ID = 34620]

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

Assertion A: Solar-tracking plants have the ability to move their leaves such that they avoid full exposure to sunlight to minimize heating and water loss

Reason R: The sun avoiding leaves are called diaheliotropic leaves

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

[Question ID = 16156][Question Description = 104_153_AGR_SEP22_Q04]

1. Both **A** and **R** are correct and **R** is the correct explanation of **A** [Option ID = 34621]
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A** [Option ID = 34622]
3. **A** is correct but **R** is not correct [Option ID = 34623]
4. **A** is not correct but **R** is correct [Option ID = 34624]

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

Assertion A: Potassium cyanate is a contact herbicide, it is used as post-emergence herbicide in onion and defoliant in

cotton and soybean

Reason R: This herbicide has very low solubility in water and thus has very low chance of leaching down

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

[Question ID = 16157][Question Description = 105_153_AGR_SEP22_Q05]

1. Both **A** and **R** are correct and **R** is the correct explanation of **A.** [Option ID = 34625]
2. Both **A** and **R** are correct and **R** is the correct explanation of **A.** [Option ID = 34626]
3. **A** is correct but **R** is not correct. [Option ID = 34627]
4. **A** is not correct but **R** is correct. [Option ID = 34628]

6) Following are the statements regarding use of trap and catch crops for controlling parasitic weeds like *Striga and Orobanche and Cuscuta*

A. There is no trap or catch crop of *Cuscuta*

B. Trap crops are the real hosts for these weeds

C. Cotton, soybean, groundnut and kenaf are trap crops for *Striga*

D. Catch crops are parasitic weed-susceptible varieties of crops and are sacrificed

E. Sudan grass is an excellent trap crop for *Striga hermonthica*

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

[Question ID = 16158][Question Description = 106_153_AGR_SEP22_Q06]

1. B, C and D only [Option ID = 34629]
2. A and E only [Option ID = 34630]
3. A, C and D only [Option ID = 34631]
4. A, B and E only [Option ID = 34632]

7) Match List I with List II

List I	List II
Crop	Critical period for weed competition
A. Soybean	I. 20-45 days after sowing
B. Direct seeded rice	II. 30-60 days after sowing
C. Lentil	III. 30-75 days after sowing
D. Onion	IV. 30-45 days after sowing
E. Jute	V. 15 -45 days after sowing

Choose the correct answer from the options given below:

[Question ID = 16159][Question Description = 107_153_AGR_SEP22_Q07]

1. A-I, B-V, C-II, D-III, E-IV [Option ID = 34633]
2. A-III, B-V, C-I, D-II, E-IV [Option ID = 34634]
3. A-II, B-I, C-V, D-III, E-IV [Option ID = 34635]
4. A-II, B-IV, C-V, D-I, E-III [Option ID = 34636]

8) Which of the following is NOT true about pendimethalin effects on susceptible weed species?

[Question ID = 16160][Question Description = 108_153_AGR_SEP22_Q08]

1. It inhibits seed germination [Option ID = 34637]
2. Pendimethalin inhibits early seedling growth shortly after seed germination [Option ID = 34638]
3. It inactivates tubulin protein that helps in cell division [Option ID = 34639]
4. It is absorbed through shoots and hypocotyls and inhibits cell division and cell elongation [Option ID = 34640]

9) Diuron (Karmex 80 WP) is required to be applied as 40 cm wide band over crop rows in cotton spaced 90 cm apart, compute the quantity of commercial product required to cover 14 ha area when application rate is 0.5 kg diuron per ha.

[Question ID = 16161][Question Description = 109_153_AGR_SEP22_Q09]

1. 8.8 kg [Option ID = 34641]
2. 3.89 kg [Option ID = 34642]
3. 3.11 kg [Option ID = 34643]
4. 2.90 kg [Option ID = 34644]

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

Assertion A: In dry areas, perennial weeds, *Cirsium arvense* and *Convolvulus arvensis* have been found more competitive than annual weed species.

Reason R: Both of these weeds have narrow leaves with long spines

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

[Question ID = 16162][Question Description = 110_153_AGR_SEP22_Q10]

1. Both **A** and **R** are correct and **R** is the correct explanation of **A.** [Option ID = 34645]
2. Both **A** and **R** are correct and **R** is the correct explanation of **A.** [Option ID = 34646]
3. **A** is correct but **R** is not correct. [Option ID = 34647]
4. **A** is not correct but **R** is correct. [Option ID = 34648]

11) Which among the followings is NOT the characteristic of hidden hunger in plant?

[Question ID = 16163][Question Description = 111_153_AGR_SEP22_Q11]

1. Plants with "hidden hunger" may exhibit a yield response [Option ID = 34649]
2. Unbalanced nutrient availability may cause hidden hunger that reduces plant yield [Option ID = 34650]
3. Hidden hunger usually occurs between critical nutrient range and optimum nutrient supply for maximizing plant growth [Option ID = 34651]
4. Tissue tests can confirm N deficiencies and hidden hunger [Option ID = 34652]

12) Match **List I** with **List II**

List I	**List II**
A. $\frac{dy}{dx} = (A - y) \times C$	I. Blackman
B. Inverse yield nitrogen law	II. Spillman
C. Law of minimum	III. Willcox
D. Law of limiting factors	IV. Mitscherlich
E. $Y = M\ (I - R^x)$	V. Liebig

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

[Question ID = 16164][Question Description = 112_153_AGR_SEP22_Q12]

1. A - III, B - V, C - IV, D -I, E - II [Option ID = 34653]
2. A - IV, B - III, C - V, D - II, E - I [Option ID = 34654]
3. A - IV, B - I, C - V , D - II, E - III [Option ID = 34655]
4. A -IV, B - III, C - V, D - I, E - II [Option ID = 34656]

13) What is the correct sequence of average concentration of nutrients in plants expressed by weight on a dry matter basis?

[Question ID = 16165][Question Description = 113_153_AGR_SEP22_Q13]

1. $Ni < Cu < B < Mn < Cl$

   [Option ID = 34657]
2. $Mn > Cu > B > Cl > Ni$

   [Option ID = 34658]
3. $Mn > Cu > Cl > Ni > B$

   [Option ID = 34659]
4. $Mn > Cu > B > Ni > Cl$

   [Option ID = 34660]

14) The conversion of protein in crop residues to R-NH_2 in soil is known as

[Question ID = 16166][Question Description = 114_153_AGR_SEP22_Q14]

1. Immobilization [Option ID = 34661]
2. Aminization [Option ID = 34662]
3. Nitrification [Option ID = 34663]
4. Ammonification [Option ID = 34664]

15) Which of the following fertilizers causes relatively less seedling damage, when applied with the seed?[Question ID = 16167][Question Description = 115_153_AGR_SEP22_Q15]

1. Urea [Option ID = 34665]
2. Urea-ammonium phosphate [Option ID = 34666]
3. Diammonium phosphate [Option ID = 34667]
4. Monoammonium phosphate [Option ID = 34668]

16) Which of the following is not the form of precipitation?[Question ID = 16168][Question Description = 116_153_AGR_SEP22_Q16]

1. Rime [Option ID = 34669]
2. Sleet [Option ID = 34670]
3. Virga [Option ID = 34671]
4. Mist [Option ID = 34672]

17) According to "Common Guidelines for Watershed Development Projects-2008" the watershed Secretary will be responsible for the tasks

A. Convening annual meetings of Watershed Committee only for facilitating the decision making processes in the context of Watershed Development Project.

B. Taking follow up action on all decisions

C. Distribution of seed and fertilizer to famers.

D. Ensuring payments and other financial transactions.

E. Signing the cheques jointly with the Chairman of Watershed Committee

Choose the *correct* answer from the options given below

[Question ID = 16169][Question Description = 117_153_AGR_SEP22_Q17]

1. A, C and E [Option ID = 34673]
2. B and D [Option ID = 34674]
3. A, C and D [Option ID = 34675]
4. C, D and E [Option ID = 34676]

18) Following are the statements about Zingg terraces

A. These are recommended for high rainfall areas

B. The field is divided into runoff donor and runoff receiving area in the ratio of 2: 1 to 5: 1

C. The water collected in the receiving area is pumped back to donor area for growing usually cereal crops

D. The donor (upper) area is not leveled but lower (receiving) area is leveled and put to crops like rice using runoff water

E. This system was developed by Zingg and Nichols (1937)

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

[Question ID = 16170][Question Description = 118_153_AGR_SEP22_Q18]

1. C and E only [Option ID = 34677]
2. B and C only

   [Option ID = 34678]
3. A and D only

   [Option ID = 34679]
4. B and D only

   [Option ID = 34680]

19) Which of the following crops cannot be raised successfully by transplanting seedlings produced using irrigation, under the conditions of late onset of monsoons[Question ID = 16171][Question Description = 119_153_AGR_SEP22_Q19]

1. Fingermillet [Option ID = 34681]
2. Pearlmillet [Option ID = 34682]
3. Groundnut [Option ID = 34683]
4. Foxtail millet [Option ID = 34684]

20) Following are the statements regarding transpiration control

A. Reduction in shoot growth decreases the leaf area available for transpiration loss

B. Growth retardants, usually, decrease the root growth

C. PMA is herbicide that causes closure of stomata

D. Lime water is reflecting type antitranspirant

E. Hydroxysulphonates is a growth hormone that causes stomatal closure

Choose the *correct* answer from the options given below

[Question ID = 16172][Question Description = 120_153_AGR_SEP22_Q20]

1. A and B [Option ID = 34685]
2. A and D [Option ID = 34686]
3. A, C and E [Option ID = 34687]
4. A, B and D [Option ID = 34688]

21) Critical concentration of N in wheat leaves below which deficiency symptoms appear

[Question ID = 16173][Question Description = 121_153_AGR_SEP22_Q21]

1. 1.0% [Option ID = 34689]
2. 1.5% [Option ID = 34690]
3. 2.0% [Option ID = 34691]
4. 2.5% [Option ID = 34692]

22) Processes that does not occur in the submerged rice field

[Question ID = 16174][Question Description = 122_153_AGR_SEP22_Q22]

1. Increase in pH of acid soils and reduction in pH of sodic soils [Option ID = 34693]
2. Conversion of N_2O to nitrate in soil [Option ID = 34694]
3. Increased availability of native soil P [Option ID = 34695]
4. Sulfide toxicity [Option ID = 34696]

23) Which among the following characteristics is NOT favourable for jute cultivation?

[Question ID = 16175][Question Description = 123_153_AGR_SEP22_Q23]

1. Mean temperature ranging from 18 to 30°C during growing period [Option ID = 34697]
2. Main growing months of March, April and May each receive at least 250 mm rainfall [Option ID = 34698]
3. Relative humidity of 84-96% [Option ID = 34699]
4. Enough clear water should be available for retting after harvest [Option ID = 34700]

24) What is the correct sequence of stages of fruiting structure of cotton?[Question ID = 16176][Question Description = 124_153_AGR_SEP22_Q24]

1. Flower-square-boll [Option ID = 34701]
2. Flower-boll-square [Option ID = 34702]
3. Boll-flower-square [Option ID = 34703]
4. Square-flower-boll [Option ID = 34704]

25) Which of the followings is NOT the basic reason why a farmer prefers *lathyrus* to other crops in winter season?

[Question ID = 16177][Question Description = 125_153_AGR_SEP22_Q25]

1. Early sowing does not result in corresponding yield losses [Option ID = 34705]
2. Its ability to withstand extreme moisture stress condition [Option ID = 34706]
3. The ability of *lathyrus* to thrive on fields receiving very little field preparation [Option ID = 34707]
4. It can be sown in a standing crop of rice about a fortnight before the harvest of rice [Option ID = 34708]

26) What should be the moisture content of pods of groundnut at harvest

[Question ID = 16178][Question Description = 126_153_AGR_SEP22_Q26]

1. 20-25% [Option ID = 34709]
2. 25-30% [Option ID = 34710]
3. 30-35% [Option ID = 34711]
4. 35-40% [Option ID = 34712]

27) A range of _____ times the mean deviation, centering at the mean includes 99 per cent of all observations.
[Question ID = 16179][Question Description = 127_153_AGR_SEP22_Q27]

1. 6.5 [Option ID = 34713]
2. 7.5 [Option ID = 34714]
3. 8.5 [Option ID = 34715]
4. 9.5 [Option ID = 34716]

28) In order to assess the effect of different sources of nitrogen on paddy yield, an experiment was conducted in RCBD with four replications. The treatments consisted of four levels of nitrogen in the form of Ammonium chloride, the same four levels of nitrogen in the form of Urea and a control (without application of nitrogen). Then, what will be the degree of freedom for the source of variation "Ammonium chloride vs Urea" in the analysis of variance?

[Question ID = 16180][Question Description = 128_153_AGR_SEP22_Q28]

1. Such analysis cannot be done by RCBD [Option ID = 34717]
2. 1 [Option ID = 34718]
3. 3 [Option ID = 34719]
4. 9 [Option ID = 34720]

29) Which of the following is NOT the application of chi-square test?

[Question ID = 16181][Question Description = 129_153_AGR_SEP22_Q29]

1. Testing the dependence of attributes [Option ID = 34721]
2. Testing the homogeneity of sample variances [Option ID = 34722]
3. Testing the homogeneity of correlation coefficients [Option ID = 34723]
4. Testing the expectation of a ratio [Option ID = 34724]

30) Type of transformation of data used when the standard deviation is proportional to mean value?

[Question ID = 16182][Question Description = 130_153_AGR_SEP22_Q30]

1. Square root transformation [Option ID = 34725]
2. Angular transformation [Option ID = 34726]
3. Log transformation [Option ID = 34727]
4. Reciprocal transformation [Option ID = 34728]

31) A single tillage operation over a hectare with a country plough requires how much walk on rough land?[Question ID = 16183][Question Description = 131_153_AGR_SEP22_Q31]

1. 33.3 km [Option ID = 34729]
2. 40.0 km [Option ID = 34730]
3. 50.0 km [Option ID = 34731]
4. 66.7 km [Option ID = 34732]

32) The relative infestation of which of the following weed species are mostly decreased in zero tillage compared to conventional tillage in India?

A. Little canary grass

B. Wild oat

C. Lamb's quarters

D. Awnless barnyard grass

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

[Question ID = 16184][Question Description = 132_153_AGR_SEP22_Q32]

1. A, B and C only [Option ID = 34733]
2. B, C and D only [Option ID = 34734]
3. C, D and A only [Option ID = 34735]
4. D, A and B only [Option ID = 34736]

33) The plant, whose roots are capable of penetrating into rock fissures is known as _____ .[Question ID = 16185] [Question Description = 133_153_AGR_SEP22_Q33]

1. Psammophyte [Option ID = 34737]
2. Lithophyte [Option ID = 34738]
3. Petrophyte [Option ID = 34739]
4. Chasmophyte [Option ID = 34740]

34) What is the value of particle density, If ρ_b , n and e represent bulk density, porosity and void ratio, respectively?

[Question ID = 16186][Question Description = 134_153_AGR_SEP22_Q34]

1. $\rho_b\left(1-\frac{n}{100}\right)$

   [Option ID = 34741]
2. $\rho_b\left(1+\frac{n}{100}\right)$

   [Option ID = 34742]
3. $\rho_b\left(1+\frac{e}{100}\right)$

[Option ID = 34743]

4. $\rho_b(1+e)$

[Option ID = 34744]

35) Which of the following methods is not recommended by the FAO group of scientists on crop water requirement for the prediction of ET?[Question ID = 16187][Question Description = 135_153_AGR_SEP22_Q35]

1. Blaney-Criddle method [Option ID = 34745]
2. Radiation method [Option ID = 34746]
3. Penman method [Option ID = 34747]
4. Pan evaporation method [Option ID = 34748]

36) Which of the following crops has the entire growth period as critical period for moisture?[Question ID = 16188][Question Description = 136_153_AGR_SEP22_Q36]

1. Sugarcane [Option ID = 34749]
2. Tobacco [Option ID = 34750]
3. Cabbage [Option ID = 34751]
4. Banana [Option ID = 34752]

37) The root zone of the crop is within the reachable distance through the capillary rise of moisture from a water table for all type of soils. Which soil will provide the moisture to the crop from the water table in the shortest span of the time? [Question ID = 16189][Question Description = 137_153_AGR_SEP22_Q37]

1. Sand [Option ID = 34753]
2. Loamy sand [Option ID = 34754]
3. Clay loam [Option ID = 34755]
4. Soil texture has no relationship with the upward movement of moisture [Option ID = 34756]

38) How much average amount of water in India infiltrates into the ground annually?[Question ID = 16190][Question Description = 138_153_AGR_SEP22_Q38]

1. 215 Mham [Option ID = 34757]
2. 165 Mham [Option ID = 34758]
3. 70 Mham [Option ID = 34759]
4. 50 Mham [Option ID = 34760]

39) Which among the following combinations of situations is suitable for sub-irrigation?

A. Water having high salt content

B. Low water holding capacity

C. High infiltration rate

D. Evaporation loss from ground surface must be minimum

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

[Question ID = 16191][Question Description = 139_153_AGR_SEP22_Q39]

1. A and B only [Option ID = 34761]
2. B and C only [Option ID = 34762]
3. C and A only [Option ID = 34763]
4. D and A only [Option ID = 34764]

40) Which is the most common method of irrigation in India?[Question ID = 16192][Question Description = 140_153_AGR_SEP22_Q40]

1. Furrow [Option ID = 34765]
2. Border [Option ID = 34766]
3. Check basin [Option ID = 34767]
4. Drip [Option ID = 34768]

41) The operating pressure for perforated pipe system of sprinkler irrigation method is

[Question ID = 16193][Question Description = 141_153_AGR_SEP22_Q41]

1. 0.1 to 1.0 kg/cm^2 [Option ID = 34769]
2. 0.5 to 2.5 kg/cm^2 [Option ID = 34770]
3. 2.0 to 3.5 kg/cm^2 [Option ID = 34771]
4. 2.5 to 4.0 kg/cm^2 [Option ID = 34772]

42) The recommended safe limit of land slope in clay to clay loam soils in border method of irrigation is

[Question ID = 16194][Question Description = 142_153_AGR_SEP22_Q42]

1. 0.01% to 0.15% [Option ID = 34773]
2. 0.05% to 0.20% [Option ID = 34774]
3. 0.20% to 0.40% [Option ID = 34775]
4. 0.25% to 0.60% [Option ID = 34776]

43) Value of sodium adsorption ratio can be computed as

[Question ID = 16195][Question Description = 143_153_AGR_SEP22_Q43]

1. $\frac{ESP}{0.015 \times (100 - ESP)}$

   [Option ID = 34777]
2. $0.015 \times ESR$

   [Option ID = 34778]
3. $\frac{100 \times ESR}{1 + ESR}$

   [Option ID = 34779]
4. $\frac{100 \times ESP}{1 + ESP}$

   [Option ID = 34780]

44) How much per cent of yield reduction will be obtained from the potential yield of a crop due to the influence of soil salinity, if the threshold level of salinity is 8 mmhos/cm, % yield decrease/Unit EC increase is b and the measured soil salinity of the soil is 15 mmhos/cm?[Question ID = 16196][Question Description = 144_153_AGR_SEP22_Q44]

1. 100 – 7¤ [Option ID = 34781]
2. 7b [Option ID = 34782]
3. 100 + 7¤ [Option ID = 34783]
4. 93 b [Option ID = 34784]

45) What percentage of $CaCO_3$ will be left out in the soil after the application of S for reduction of ESP from 18 to 8, if the CEC of the soil is 25 meq/100 g and the soil has 2% $CaCO_3$ before amendment?

[Question ID = 16197][Question Description = 145_153_AGR_SEP22_Q45]

1. 0.125 [Option ID = 34785]
2. 1.875 [Option ID = 34786]
3. 0.250 [Option ID = 34787]
4. 1.750 [Option ID = 34788]

46) What is the sequence for the year of development of indices for intercropping?

[Question ID = 16198][Question Description = 146_153_AGR_SEP22_Q46]

1. RYT, LER, RCC, Aggressivity [Option ID = 34789]
2. RYT, Agressivity, LER, RCC [Option ID = 34790]
3. RYT, LER, Aggressivity, RCC [Option ID = 34791]
4. RCC, RYT, Aggressivity, LER [Option ID = 34792]

47) In the 50:50 row proportion for crop a and b in replacement series of intercropping, the value of relative crowding coefficient, i.e. $RCC = \frac{LER_a}{1-LER_a} \times \frac{LER_b}{1-LER_b}$, where LER_a and LER_b represent land equivalent ratio of crop a and b, respectively. Then, what will be the value of RCC in replacement series of intercropping, when the row proportion for crop a:b is 4:1?

[Question ID = 16199][Question Description = 147_153_AGR_SEP22_Q47]

1. $\frac{4}{5} \times \frac{LER_a}{1-LER_a} \times \frac{LER_b}{1-LER_b}$

   [Option ID = 34793]
2. $\frac{1}{4} \times \frac{LER_a}{1-LER_a} \times \frac{LER_b}{1-LER_b}$

   [Option ID = 34794]
3. $\frac{5}{4} \times \frac{LER_a}{1-LER_a} \times \frac{LER_b}{1-LER_b}$

[Option ID = 34795]

4. $\frac{LER_a}{1-LER_a} \times \frac{LER_b}{1-LER_b}$

[Option ID = 34796]

48) The scientist who worked as an Agricultural Adviser in India, is referred as the father of modern organic agriculture?

[Question ID = 16200][Question Description = 148_153_AGR_SEP22_Q48]

1. M. S. Swaminathan [Option ID = 34797]
2. Subhash Palekar [Option ID = 34798]
3. Albert Howard [Option ID = 34799]
4. J. I. Rodale [Option ID = 34800]

49) Which formulation of biodynamics is prophylactic in nature and helps in control of fungal diseases?[Question ID = 16201] [Question Description = 149_153_AGR_SEP22_Q49]

1. BD 500 [Option ID = 34801]
2. BD 502 [Option ID = 34802]
3. BD 507 [Option ID = 34803]
4. BD 508 [Option ID = 34804]

50) The number of crops grown per annum on a given area of land times 100 is known as _____.[Question ID = 16202] [Question Description = 150_153_AGR_SEP22_Q50]

1. Cropping intensity [Option ID = 34805]
2. Cropping diversity [Option ID = 34806]
3. Cropping index [Option ID = 34807]
4. Cropping sequential intensity [Option ID = 34808]