

# National Testing Agency

<b>Question Paper Name :</b>	Agricultural Chemicals 17th September Shift 2
<b>Subject Name :</b>	Agricultural Chemicals
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<b>Display Marks:</b>	Yes

## Agricultural Chemicals

<b>Group Number :</b>	1
<b>Group Id :</b>	190889140
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	120
<b>Show Attended Group? :</b>	No
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<b>Break time :</b>	0
<b>Group Marks :</b>	480
<b>Is this Group for Examiner? :</b>	No

## Part A: General Knowledge

<b>Section Id :</b>	190889344
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory

<b>Number of Questions :</b>	20
<b>Number of Questions to be attempted :</b>	20
<b>Section Marks :</b>	80
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	190889384
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 1 Question Id : 19088916102 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

Which of the following is the device used to measure the power and speed of the wind?

1. Avometer
2. Anemometer
3. Airometer
4. Aviontimeter

**Options :**

19088964301. 1

19088964302. 2

19088964303. 3

19088964304. 4

**Question Number : 2 Question Id : 19088916103 Question Type : MCQ Option Shuffling : No Is Question Mandatory : No Correct Marks : 4 Wrong Marks : 1**

Optical fibre used the concept of which of the following?

1. Reflection
2. Refraction
3. Total internal reflection
4. Total internal refraction

**Options :**

- 19088964305. 1
- 19088964306. 2
- 19088964307. 3
- 19088964308. 4

**Question Number : 3 Question Id : 19088916104 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Yellow vein mosaic is the viral disease of which of the following plants?

- 1. Ladyfinger
- 2. Papaya
- 3. Sugarcane
- 4. Banana

**Options :**

- 19088964309. 1
- 19088964310. 2
- 19088964311. 3
- 19088964312. 4

**Question Number : 4 Question Id : 19088916105 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following organ(s) is affected by Mumps disease?

- 1. Entire body
- 2. Skin
- 3. Eye
- 4. Parotid

**Options :**

- 19088964313. 1
- 19088964314. 2
- 19088964315. 3

19088964316. 4

**Question Number : 5 Question Id : 19088916106 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is the chemical name of vitamin B<sub>2</sub>?

1. Riboflavin
2. Calciferol
3. Pyridoxin
4. Niacin

**Options :**

19088964317. 1

19088964318. 2

19088964319. 3

19088964320. 4

**Question Number : 6 Question Id : 19088916107 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not the input unit of the computer?

1. Mouse
2. Keyboard
3. Screen
4. Scanner

**Options :**

19088964321. 1

19088964322. 2

19088964323. 3

19088964324. 4

**Question Number : 7 Question Id : 19088916108 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The digital computer operates on which of the following principle?

1. Measurement
2. Calculation
3. Logical
4. Electrification

**Options :**

19088964325. 1

19088964326. 2

19088964327. 3

19088964328. 4

**Question Number : 8 Question Id : 19088916109 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The non-cooperation movement of Gandhiji was launched in which of the following year?

1. 1915
2. 1922
3. 1920
4. 1930

**Options :**

19088964329. 1

19088964330. 2

19088964331. 3

19088964332. 4

**Question Number : 9 Question Id : 19088916110 Question Type : MCQ Option Shuffling : No Is**

**Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

An Islamic revivalist movement named Wahabi movement was founded by which of the following person?

1. Sian Saheb
2. Syed Ahmed
3. Haji Shariat-Allah
4. DaduMian

**Options :**

19088964333. 1

19088964334. 2

19088964335. 3

19088964336. 4

**Question Number : 10 Question Id : 19088916111 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is considered as the “Magna Carta of England Education in India”?

1. Hunter education commission
2. Lord Macaulay’s Minute
3. Wood’s Despatch
4. Thomas Babington Macaulay

**Options :**

19088964337. 1

19088964338. 2

19088964339. 3

19088964340. 4

**Question Number : 11 Question Id : 19088916112 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following nutrient does not come under the ambit of 'macro-nutrients in Soil Health Card?

1. Nitrogen
2. Zinc
3. Phosphorous
4. Potassium

**Options :**

19088964341. 1

19088964342. 2

19088964343. 3

19088964344. 4

**Question Number : 12 Question Id : 19088916113 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Cole crops, root crops and legumes come under the ambit of which of the following?

1. Olericulture
2. Pomology
3. Viticulture
4. Arboriculture

**Options :**

19088964345. 1

19088964346. 2

19088964347. 3

19088964348. 4

**Question Number : 13 Question Id : 19088916114 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The study of individual trees, shrubs, vines, and perennial woody plants is known as which of the following?

1. Turf management
2. Arboriculture
3. Pomology
4. Viticulture

**Options :**

19088964349. 1

19088964350. 2

19088964351. 3

19088964352. 4

**Question Number : 14 Question Id : 19088916115 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The ministry is implementing MIDH (Mission for Integrated Development of Horticulture) with effect from which of the following year?

1. 2012-13
2. 2019-20
3. 2015-16
4. 2014-15

**Options :**

19088964353. 1

19088964354. 2

19088964355. 3

19088964356. 4

**Question Number : 15 Question Id : 19088916116 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**



The interaction of soils with living things, particularly plants are well known as which of the following?

1. Edaphology
2. Pedology
3. Soil zoology
4. Pedogenesis

**Options :**

19088964357. 1

19088964358. 2

19088964359. 3

19088964360. 4

**Question Number : 16 Question Id : 19088916117 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following systems has also incorporated social aspects in itself?

1. Landscaping
2. Permaculture
3. Horticulture
4. Forest gardening

**Options :**

19088964361. 1

19088964362. 2

19088964363. 3

19088964364. 4

**Question Number : 17 Question Id : 19088916118 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What do you term the phenomenon whereby the specific gene is added to the plant for producing a desirable phenotype?

1. Genetic manipulation
2. Genetic recombination
3. Genetic modification
4. Genetic hybridisation

**Options :**

19088964365. 1

19088964366. 2

19088964367. 3

19088964368. 4

**Question Number : 18 Question Id : 19088916119 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the focus of the participatory plant breeding program?

1. Scientists
2. Plants
3. Environment
4. Farmers

**Options :**

19088964369. 1

19088964370. 2

19088964371. 3

19088964372. 4

**Question Number : 19 Question Id : 19088916120 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

How do you term the form of agriculture, in which, industrialized production of crops and animal products takes place?

1. Manufactured agriculture
2. Modern agriculture
3. Industrial agriculture
4. Mechanistic agriculture

**Options :**

19088964373. 1

19088964374. 2

19088964375. 3

19088964376. 4

**Question Number : 20 Question Id : 19088916121 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Micro-irrigation fund of Rs. 5.000 crore has been placed with which of the following organization?

1. NABARD
2. IDBI
3. SBI
4. RRBs

**Options :**

19088964377. 1

19088964378. 2

19088964379. 3

19088964380. 4

## **Part B Core : Natural Resource Management-II**

**Section Id :** 190889345

**Section Number :** 2

**Section type :** Online

<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	50
<b>Number of Questions to be attempted :</b>	50
<b>Section Marks :</b>	200
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	190889385
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 21 Question Id : 19088916122 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

According to agro-climatic zones regrouped by CAZRI, the potential cropping system in the cold arid zone of Jammu and Kashmir

1. No-cropping
2. Single cropping
3. Intercropping
4. Double cropping

**Options :**

19088964381. 1

19088964382. 2

19088964383. 3

19088964384. 4

**Question Number : 22 Question Id : 19088916123 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

List I	List II
(Weeds)	(Major medicinal value)
A. <i>Achyranthes aspera</i>	I. Measles, enlargement of liver and spleen
B. <i>Acmella oleracea</i>	II. Stammering, tooth ache, stomatitis
C. <i>Leucas aspera</i>	III. Antidote for poisoning due to seeds of <i>Datura</i> spp., arsenic and mercury
D. <i>Solanum nigrum</i>	IV. Nasal congestion, sinusitis, snake bite, scorpion bite, chronic rheumatism
E. <i>Oxalis corniculata</i>	V. Asthma, cough, diuretic, piles, boils

Choose the correct answer from the options given below:

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

**Options :**

19088964385. 1

19088964386. 2

19088964387. 3

19088964388. 4

**Question Number : 23 Question Id : 19088916124 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Correct order of nitrogen fertilizers with respect to their acidifying effect on soil

1. Ammonium sulphate > Ammonium chloride > Ammonium nitrate > urea
2. Ammonium chloride > Ammonium sulphate > Urea > Ammonium nitrate
3. Ammonium sulphate > Ammonium chloride > urea > Ammonium nitrate
4. Ammonium nitrate < Ammonium chloride > Ammonium sulphate > urea

**Options :**

19088964389. 1

19088964390. 2

19088964391. 3

19088964392. 4

**Question Number : 24 Question Id : 19088916125 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

List I	List II
(Water harvesting structure)	(Major purpose)
A. Farm pond	I. Gully reclamation, irrigation and ground water recharge
B. Percolation tank	II. Irrigation and fishery
C. Nala bund	III. Ground water recharge and surface moistening of down side sloping plot
D. Low earthen dam	IV. All sorts of community purposes and groundwater recharge
E. Khadin	V. Moisture and nutrient conservation, moisture recharge in the profile for raising <i>rabi</i> crops

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

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

**Options :**

19088964393. 1

19088964394. 2

19088964395. 3

19088964396. 4

**Question Number : 25 Question Id : 19088916126 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The energy rich drinks like 'bournvita', 'boost', 'horlicks', 'maltova', etc. are prepared from the extract of which crop?

1. Barley
2. Lentil
3. Pearlmillet
4. Sorghum

**Options :**

19088964397. 1

19088964398. 2

19088964399. 3

19088964400. 4

**Question Number : 26 Question Id : 19088916127 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Soils with less than \_\_\_\_\_ ppm available S are considered deficient for groundnut.

1. 10.0
2. 12.5
3. 15.0
4. 17.5

**Options :**

19088964401. 1

19088964402. 2

19088964403. 3

19088964404. 4

**Question Number : 27 Question Id : 19088916128 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which index provides actual yield advantage of intercropping?

1. Relative crowding coefficient
2. Aggressivity
3. Competition ratio
4. Land equivalent ratio

**Options :**

19088964405. 1

19088964406. 2

19088964407. 3

19088964408. 4

**Question Number : 28 Question Id : 19088916129 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

What is the magnitude of water potential (bars) in the leaf?

1. -0.1 to -20
2. -5 to -50
3. -100 to -200
4. -1000 to -2000

**Options :**

19088964409. 1

19088964410. 2

19088964411. 3

19088964412. 4

**Question Number : 29 Question Id : 19088916130 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**



Which country has highest area under organic cultivation?

1. Australia
2. Argentina
3. China
4. USA

**Options :**

19088964413. 1

19088964414. 2

19088964415. 3

19088964416. 4

**Question Number : 30 Question Id : 19088916131 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which among the following activities improves soil structure?

1. Summer deep ploughing
2. Frequent harrowings
3. Tillage at improper moisture
4. Tillage activity has no effect on soil structure

**Options :**

19088964417. 1

19088964418. 2

19088964419. 3

19088964420. 4

**Question Number : 31 Question Id : 19088916132 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which among the following is not the method to control *Striga* in sorghum?

1. The use of anti-transpirant on *Striga*
2. Application of more nitrogen to fertile land of sorghum
3. Crop rotation of sorghum with cotton
4. Application of herbicide that does not interfere with mannitol metabolism

**Options :**

19088964421. 1

19088964422. 2

19088964423. 3

19088964424. 4

**Question Number : 32 Question Id : 19088916133 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Combination of which of the following chemicals when sprayed at first node and flag leaf stages has been reported to reduce plant height, enhance lodging resistance and increase the grain yield of irrigated wheat?

- A. Tebuconazole
- B. Cycocel
- C. Phenyl mercuric acetate
- D. Chloromequat chloride

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

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

**Options :**

19088964425. 1

19088964426. 2

19088964427. 3

19088964428. 4

**Question Number : 33 Question Id : 19088916134 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Calculate the amount of farmyard manure (FYM) to be applied for 1.2 ha area of wheat crop to provide 150 kg N/ha to the soil When N content of FYM is 0.6% and the moisture content of FYM on dry weight basis is 50%.

1. 37.5 t
2. 45.0 t
3. 50.0 t
4. 60.0 t

**Options :**

19088964429. 1

19088964430. 2

19088964431. 3

19088964432. 4

**Question Number : 34 Question Id : 19088916135 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

For reducing the experimental error, we can use

1. Replication and local control
2. Selection of treatments and choice of experimental design
3. Selection of experimental material and data analysis
4. All of the above

**Options :**

19088964433. 1

19088964434. 2

19088964435. 3

19088964436. 4

**Question Number : 35 Question Id : 19088916136 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Ionic strength of a solution containing mixture of 0.06 M CaCl<sub>2</sub> and 0.025 M KCl is

1. 0.205
2. 0.115
3. 0.025
4. 0.175

**Options :**

19088964437. 1

19088964438. 2

19088964439. 3

19088964440. 4

**Question Number : 36 Question Id : 19088916137 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Acid sulphate soil is represented by:

- A. Cat-clay
- B. Kari soil
- C. Kole soil
- D. Kallar soil

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

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

**Options :**

19088964441. 1

19088964442. 2

19088964443. 3

19088964444. 4

**Question Number : 37 Question Id : 19088916138 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Diameter of fine particle in sand fraction according to USDA

1. 0.25-0.10 mm
2. 0.50-0.25 mm
3. 0.05-0.002 mm
4. 2.00 -1.00 mm

**Options :**

19088964445. 1

19088964446. 2

19088964447. 3

19088964448. 4

**Question Number : 38 Question Id : 19088916139 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The equation used to describe the multilayer adsorption isotherm and to calculate the surface area

1. Freundlich isotherm
2. BET isotherm
3. Kerr equation
4. Langmuir isotherm

**Options :**

19088964449. 1

19088964450. 2

19088964451. 3

19088964452. 4

**Question Number : 39 Question Id : 19088916140 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

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

**Assertion A :**

For synthesis of  $\text{NH}_3$  by Haber Bosch process, hydrogen ( $\text{H}_2$ ) gas is required which comes from hydrocarbon by the process of steam reforming and non-catalytic partial oxidation.

**Reason R :**

Steam reforming is an endothermic process while non-catalytic partial oxidation is an exothermic process.

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

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

**Options :**

19088964453. 1

19088964454. 2

19088964455. 3

19088964456. 4

**Question Number : 40 Question Id : 19088916141 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

List I (Book/Theory proposed/Characteristic, etc.)	List II (Author/Thinker/Name of Theory, etc.)
A. Soil colour chart	I. Jenny
B. Soil forming equation	II. Donnan
C. Membrane potential	III. Munshell
D. Ratio Law	IV. Schofield

Choose the correct answer from the options given below:

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

**Options :**

19088964457. 1

19088964458. 2

19088964459. 3

19088964460. 4

**Question Number : 41 Question Id : 19088916142 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

List I (Book/Theory proposed/Characteristic, etc.)	List II (Author/Thinker/Name of Theory, etc.)
A. Sulphur oxidizing bacteria	I. Desulfovibrio
B. Sulphur reducing bacteria	II. <i>Thiobacillus thiooxidans</i>
C. Iron oxidizing bacteria	III. Arthrobacter
D. Manganese oxidizing bacteria	IV. <i>Thiobacillus ferrooxidans</i>

Choose the correct answer from the options given below:

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

**Options :**

19088964461. 1

19088964462. 2

19088964463. 3

19088964464. 4

**Question Number : 42 Question Id : 19088916143 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Iron oxides, hydroxides and oxyhydroxides are

- A. Gibbsite
- B. Goethite
- C. Hematite
- D. Maghemite

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

**Options :**



19088964465. 1

19088964466. 2

19088964467. 3

19088964468. 4

**Question Number : 43 Question Id : 19088916144 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Adsorption process involves accumulation of the substance adsorbed

1. Throughout the body of the substance adsorbing it
2. On the surface of the adsorbing substance
3. In a solution in contact with the adsorbing substance
4. Below the adsorbing substance

**Options :**

19088964469. 1

19088964470. 2

19088964471. 3

19088964472. 4

**Question Number : 44 Question Id : 19088916145 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Carrier hypothesis describes the active accumulation of ions across the cell membrane which was proposed by

1. Lundegardh
2. Mitchell
3. Barber
4. Epstein

**Options :**

19088964473. 1

19088964474. 2

19088964475. 3

19088964476. 4

**Question Number : 45 Question Id : 19088916146 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not used as urease inhibitor?

1. N-butyl thiophosphric triamide
2. Phenyl mercury acetate
3. Dicyanamide
4. Phenylphosphorodiamidate

**Options :**

19088964477. 1

19088964478. 2

19088964479. 3

19088964480. 4

**Question Number : 46 Question Id : 19088916147 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In red soil, the dominant clay mineral present is

1. Montmorillonite
2. Illite
3. Kaolinite
4. Chlorite

**Options :**

19088964481. 1

19088964482. 2

19088964483. 3

19088964484. 4

**Question Number : 47 Question Id : 19088916148 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

Statement I: Thin layer chromatography is adsorption chromatography

Statement II: HPLC is both adsorption and partition chromatography

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

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

**Options :**

19088964485. 1

19088964486. 2

19088964487. 3

19088964488. 4

**Question Number : 48 Question Id : 19088916149 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following pesticide is an oxime

1. Aldrin
2. Allethrin
3. Aldicarb
4. Atrazine

**Options :**

19088964489. 1

19088964490. 2

19088964491. 3

19088964492. 4

**Question Number : 49 Question Id : 19088916150 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Senthil has taken 10 mg of spinosad and dissolved in 1 ml of solvent. From this solution, he has to prepare 0.01 ppm of stock, how many times he will dilute

1. 1000
2. 10000
3. 100000
4. 1000000

**Options :**

19088964493. 1

19088964494. 2

19088964495. 3

19088964496. 4

**Question Number : 50 Question Id : 19088916151 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Refractive index detector is a part of which analytical equipment

1. ICP
2. UPLC
3. GC
4. Spectrophotometer

**Options :**

19088964497. 1

19088964498. 2

19088964499. 3

19088964500. 4

**Question Number : 51 Question Id : 19088916152 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Tween, Span, Triton-X are the examples of

1. Carrier
2. Surfactant
3. Binder
4. Encapsulant

**Options :**

19088964501. 1

19088964502. 2

19088964503. 3

19088964504. 4

**Question Number : 52 Question Id : 19088916153 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

Statement I: Insecticide Act was enacted in 1968

Statement II: Pesticide Management Bill was introduced to replace Insecticide act, 1968

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

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

**Options :**

19088964505. 1

19088964506. 2

19088964507. 3

19088964508. 4

**Question Number : 53 Question Id : 19088916154 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Emamectin benzoate is an insecticide of which group

1. Synthetic
2. Microbial
3. Botanical
4. Semi-synthetic

**Options :**

19088964509. 1

19088964510. 2

19088964511. 3

19088964512. 4

**Question Number : 54 Question Id : 19088916155 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

Statement I: Waiting period and MRL is interrelated

Statement II: MRL in India is fixed by CIB&RC

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

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

**Options :**

19088964513. 1

19088964514. 2

19088964515. 3

19088964516. 4

**Question Number : 55 Question Id : 19088916156 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Conjugate residue is

1. Pesticide or its product binds with sugar's etc.
2. Pesticide itself
3. Degradation products only
4. Residue which is bound tightly in the matrix

**Options :**

19088964517. 1

19088964518. 2

19088964519. 3

19088964520. 4

**Question Number : 56 Question Id : 19088916157 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Till date number of pesticides registered in India

1. 278
2. 291
3. 298
4. 299

**Options :**

19088964521. 1

19088964522. 2

19088964523. 3

19088964524. 4

**Question Number : 57 Question Id : 19088916158 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Essential oil can be characterised by

1. GC
2. GC-MS
3. LC
4. LC-MS

**Options :**

19088964525. 1

19088964526. 2

19088964527. 3

19088964528. 4

**Question Number : 58 Question Id : 19088916159 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following botanicals is fish toxic

1. Rotenone
2. Azadirachtin
3. Sabadilla
4. Karanjin

**Options :**

19088964529. 1

19088964530. 2

19088964531. 3

19088964532. 4

**Question Number : 59 Question Id : 19088916160 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**



Which of the followings are not soil moisture sensors

- A. Tensiometer
- B. SPAD
- C. Granular matrix
- D. Infrared sensor
- E. Resistance block

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

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

**Options :**

- 19088964533. 1
- 19088964534. 2
- 19088964535. 3
- 19088964536. 4

**Question Number : 60 Question Id : 19088916161 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Two hydrogen and one oxygen atom of a water molecule are arranged at an angle of

1. 92.5°
2. 104.5°
3. 112.5°
4. 132.5°

**Options :**

- 19088964537. 1
- 19088964538. 2
- 19088964539. 3

19088964540. 4

**Question Number : 61 Question Id : 19088916162 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following salts is the main cause of permanent hardness of water?

1. Magnesium sulphate
2. Magnesium bicarbonate
3. Magnesium carbonate
4. Sodium chloride

**Options :**

19088964541. 1

19088964542. 2

19088964543. 3

19088964544. 4

**Question Number : 62 Question Id : 19088916163 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

According to the Geological survey, water with less than 1000 mg/litre of total dissolved solids is

1. Brine water
2. Slightly saline
3. Freshwater
4. Moderately saline

**Options :**

19088964545. 1

19088964546. 2

19088964547. 3

19088964548. 4

**Question Number : 63 Question Id : 19088916164 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following sectors is the largest consumer of water?

1. Agriculture
2. Industrial
3. Domestic
4. Textile

**Options :**

19088964549. 1

19088964550. 2

19088964551. 3

19088964552. 4

**Question Number : 64 Question Id : 19088916165 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

An underground layer of water-bearing permeable rock, rock fractures or unconsolidated materials is called as

1. Aquifuge
2. Aquitard
3. Aquifer
4. Aquiclude

**Options :**

19088964553. 1

19088964554. 2

19088964555. 3

19088964556. 4

**Question Number : 65 Question Id : 19088916166 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Water from precipitation that is stored in the root zone of the soil and evaporated, transpired or incorporated by plants is referred as

1. Blue water footprint
2. Grey water footprint
3. Rainbow water footprint
4. Green water footprint

**Options :**

19088964557. 1

19088964558. 2

19088964559. 3

19088964560. 4

**Question Number : 66 Question Id : 19088916167 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Crop water demand of winter wheat is about

1. 200 mm
2. 400 mm
3. 800 mm
4. 1000 mm

**Options :**

19088964561. 1

19088964562. 2

19088964563. 3

19088964564. 4

**Question Number : 67 Question Id : 19088916168 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following systems has maximum water saving efficiency

1. Sprinkler system
2. Central Pivot system
3. Raingun system
4. Trickle system

**Options :**

19088964565. 1

19088964566. 2

19088964567. 3

19088964568. 4

**Question Number : 68 Question Id : 19088916169 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Deviation of rainfall from normal indicates which of the following types of drought

1. Agricultural drought
2. Meteorological drought
3. Hydrological drought
4. Environmental drought

**Options :**

19088964569. 1

19088964570. 2

19088964571. 3

19088964572. 4

**Question Number : 69 Question Id : 19088916170 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The present Director of ICAR-IISWC is

1. Dr. V.K. Singh
2. Dr. J.S. Samra
3. Dr. P.R. Ojasvi
4. Dr. M. Madhu

**Options :**

19088964573. 1

19088964574. 2

19088964575. 3

19088964576. 4

**Question Number : 70 Question Id : 19088916171 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

One of the water management Institutes of ICAR is located at

1. Bhubaneswar
2. Bhopal
3. Jammu
4. Coimbatore

**Options :**

19088964577. 1

19088964578. 2

19088964579. 3

19088964580. 4

## Part C : Agricultural Chemicals

<b>Section Id :</b>	190889346
<b>Section Number :</b>	3
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory

<b>Number of Questions :</b>	50
<b>Number of Questions to be attempted :</b>	50
<b>Section Marks :</b>	200
<b>Enable Mark as Answered Mark for Review and Clear Response :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	190889386
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 71 Question Id : 19088916172 Question Type : MCQ Option Shuffling : No**  
**Is Question Mandatory : No**  
**Correct Marks : 4 Wrong Marks : 1**

What will be the pH of the final solution after dilution of the solution (pH 6.2) by 100 times

1. 6.3
2. 6.9
3. 7.2
4. 5.2

**Options :**

19088964581. 1  
19088964582. 2  
19088964583. 3  
19088964584. 4

**Question Number : 72 Question Id : 19088916173 Question Type : MCQ Option Shuffling : No**  
**Is Question Mandatory : No**  
**Correct Marks : 4 Wrong Marks : 1**

Hexane and 3-methylpentane are examples of

1. Enantiomers
2. Diastereomers
3. Stereo isomers
4. Positional isomers

**Options :**

19088964585. 1

19088964586. 2

19088964587. 3

19088964588. 4

**Question Number : 73 Question Id : 19088916174 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Two or more isomers of a compound which exist together in equilibrium, and are readily interchanged by migration of an atom or group within the molecule is called

1. Diastereomers
2. Stereoisomers
3. Monomer
4. Tautomers

**Options :**

19088964589. 1

19088964590. 2

19088964591. 3

19088964592. 4

**Question Number : 74 Question Id : 19088916175 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Pd/C catalyst is being used in.....type of reaction

1. Oxidation
2. Hydrogenation
3. Acylation
4. Cyclization

**Options :**

19088964593. 1

19088964594. 2



19088964595. 3

19088964596. 4

**Question Number : 75 Question Id : 19088916176 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In which type of reaction, rate of reaction depends on the concentration of both the substrate and the nucleophile

1.  $SN_2$
2.  $SN_1$
3. Elimination reaction
4. Redox reaction

**Options :**

19088964597. 1

19088964598. 2

19088964599. 3

19088964600. 4

**Question Number : 76 Question Id : 19088916177 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Who invented chromatography?

1. Alexander Borodin
2. Mikhail Tswett
3. Michael Faraday
4. Albert Einstein

**Options :**

19088964601. 1

19088964602. 2

19088964603. 3

19088964604. 4

**Question Number : 77 Question Id : 19088916178 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In chromatography, the stationary phase can be \_\_\_\_\_ supported on a solid

1. Solid only
2. Solid or gas only
3. Gas or liquid only
4. Solid or liquid only

**Options :**

19088964605. 1

19088964606. 2

19088964607. 3

19088964608. 4

**Question Number : 78 Question Id : 19088916179 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following cannot be used as adsorbent in column chromatography?

1. Magnesium oxide
2. Silica gel
3. Potassium permanganate
4. Activated alumina

**Options :**

19088964609. 1

19088964610. 2

19088964611. 3

19088964612. 4

**Question Number : 79 Question Id : 19088916180 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not true for essential oil

1. It is essential for plant growth
2. It comprised of mainly mono and sesquiterpenes
3. It has essence
4. It is volatile in nature

**Options :**

19088964613. 1

19088964614. 2

19088964615. 3

19088964616. 4

**Question Number : 80 Question Id : 19088916181 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Red and yellow colour of tomato and corn is due to

1. Lycopene and betain
2. Lycopene and carotene
3. Lycopene and anthocyanin
4. Betain and carotene

**Options :**

19088964617. 1

19088964618. 2

19088964619. 3

19088964620. 4

**Question Number : 81 Question Id : 19088916182 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not a fat soluble vitamin

1. Tocopherol
2. Retinol
3. Cholecalciferol
4. Thiamine

**Options :**

19088964621. 1

19088964622. 2

19088964623. 3

19088964624. 4

**Question Number : 82 Question Id : 19088916183 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is a branched chain amino acid

1. Histidine
2. Isoleucine
3. Aspartic acid
4. Proline

**Options :**

19088964625. 1

19088964626. 2

19088964627. 3

19088964628. 4

**Question Number : 83 Question Id : 19088916184 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

List I	List II
Characteristics	Compounds
A. Nitrogen containing organic compounds	I. Saponins
B. Composed of isoprene unit	II. Terpenoids
C. Having foaming properties	III. Alkaloids
D. Having peptide linkage	IV. Zein

Choose the correct answer from the options given below:

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

**Options :**

19088964629. 1

19088964630. 2

19088964631. 3

19088964632. 4

**Question Number : 84 Question Id : 19088916185 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following group of compounds is produced by *Streptomyces hygrosopicus*

1. Tetranactin
2. Avermectins
3. Strobilurins
4. Milbemycin

**Options :**

19088964633. 1

19088964634. 2

19088964635. 3

19088964636. 4

Question Number : 85 Question Id : 19088916186 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Match List I with List II

List I	List II
Compounds	Chemical attributes
A. Citral	I. Essential oil component
B. Nicotin	II. Alkaloids
C. Azadirachtin	III. Macrolide
D. Avermectin	IV. Triterpenoids

Choose the correct answer from the options given below:

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

Options :

19088964637. 1

19088964638. 2

19088964639. 3

19088964640. 4

Question Number : 86 Question Id : 19088916187 Question Type : MCQ Option Shuffling : No

Is Question Mandatory : No

Correct Marks : 4 Wrong Marks : 1

Basic unit of essential oil component is

1. Kinoprene
2. Isoprene
3. Neoprene
4. Methoprene

Options :

19088964641. 1

19088964642. 2

19088964643. 3

19088964644. 4

**Question Number : 87 Question Id : 19088916188 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Bitter principle present in citrus seed

1. Nomilin
2. Citruline
3. Salannin
4. Limonin

**Options :**

19088964645. 1

19088964646. 2

19088964647. 3

19088964648. 4

**Question Number : 88 Question Id : 19088916189 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Monoterpenoid comprised of

1. 5 carbon
2. 10 carbon
3. 15 carbon
4. 2 carbon

**Options :**

19088964649. 1

19088964650. 2

19088964651. 3

19088964652. 4

**Question Number : 89 Question Id : 19088916190 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following pesticide does not belong to neonicotinoids

1. Thiamethoxam
2. Fluopyram
3. Imidacloprid
4. Acetamiprid

**Options :**

19088964653. 1

19088964654. 2

19088964655. 3

19088964656. 4

**Question Number : 90 Question Id : 19088916191 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not a organophosphorus insecticide

1. Triazsophos
2. DDVP
3. Malathion
4. Chlorpyriphos

**Options :**

19088964657. 1

19088964658. 2

19088964659. 3

19088964660. 4

**Question Number : 91 Question Id : 19088916192 Question Type : MCQ Option Shuffling : No**



**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not insecticide synergist

1. Dillapiole
2. Sesamol
3. Nimbinol
4. PBO

**Options :**

19088964661. 1

19088964662. 2

19088964663. 3

19088964664. 4

**Question Number : 92 Question Id : 19088916193 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

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

<b>List I</b>	<b>List II</b>
<b>Compound group</b>	<b>Example</b>
A. Organophosphorus insecticide	I. Fenitrothion
B. Carbamate fungicide	II. Mancozeb
C. Carbamate herbicide	III. Thiobencarb
D. Organophosphorus fungicide	IV. Hinosan
	V. Aldicarb

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

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

**Options :**

19088964665. 1

19088964666. 2

19088964667. 3

19088964668. 4

**Question Number : 93 Question Id : 19088916194 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Fluopyram (Velum Prime) is a

1. Nematicide
2. Acaricide
3. Herbicide
4. Fungicide

**Options :**

19088964669. 1

19088964670. 2

19088964671. 3

19088964672. 4

**Question Number : 94 Question Id : 19088916195 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following group of herbicides inhibit microtubulin synthesis in cell wall

1. Dintroaniline
2. Sulfonylurea
3. Phenylurea
4. Triazine

**Options :**

19088964673. 1

19088964674. 2

19088964675. 3

19088964676. 4

**Question Number : 95 Question Id : 19088916196 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is being synthesised in roots

1. Gibberelic acid
2. Cytokinin
3. Abscisic acid
4. Auxin

**Options :**

19088964677. 1

19088964678. 2

19088964679. 3

19088964680. 4

**Question Number : 96 Question Id : 19088916197 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following group of herbicides is developed by mimicking IAA

1. Phenylurea
2. Triazines
3. Dinitroanilines
4. Phenoxyacid

**Options :**

19088964681. 1

19088964682. 2

19088964683. 3

19088964684. 4

**Question Number : 97 Question Id : 19088916198 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

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

List I	List II
<b>Chemical group</b>	<b>Example</b>
A. Dinitroanilines	I. Isoproturon
B. Phenylurea	II. Metsulfuron
C. Sulfonylurea	III. Pendimethalin
D. Triazine	IV. Simazine

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

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

**Options :**

19088964685. 1

19088964686. 2

19088964687. 3

19088964688. 4

**Question Number : 98 Question Id : 19088916199 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Emulsifiable concentrate (EC) formulation is being used frequently in the development of pesticide formulation. EC is a

1. Solution
2. Emulsion
3. Suspension
4. Colloid

**Options :**

19088964689. 1

19088964690. 2

19088964691. 3

19088964692. 4

**Question Number : 99 Question Id : 19088916200 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

One of the major purpose of formulating pesticide is

1. Quick degradation of the active ingredient
2. Increase the penetration in soil
3. Help to increase penetration in xylem
4. Reduce the surface tension

**Options :**

19088964693. 1

19088964694. 2

19088964695. 3

19088964696. 4

**Question Number : 100 Question Id : 19088916201 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Critical micelle concentration is associated with

1. Active ingredient
2. Carrier
3. Stabiliser
4. Emulsifier

**Options :**

19088964697. 1

19088964698. 2

19088964699. 3

19088964700. 4

**Question Number : 101 Question Id : 19088916202 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

\_\_\_\_\_ is being used in the pesticide formulation in order to provide stability of the active ingredient

1. Surfactant
2. Stabilizer
3. Defoaming agent
4. Diluent

**Options :**

19088964701. 1

19088964702. 2

19088964703. 3

19088964704. 4

**Question Number : 102 Question Id : 19088916203 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Sulfonylurea herbicides are not thermally stable in general. Basic tool to estimate this group of herbicide is

1. GLC
2. HPLC
3. NMR
4. IR

**Options :**

19088964705. 1

19088964706. 2

19088964707. 3

19088964708. 4

**Question Number : 103 Question Id : 19088916204 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

UV-Vis detector is a part of which of the following equipment

1. LC-MS/MS
2. GC-MS
3. UPLC
4. GC

**Options :**

19088964709. 1

19088964710. 2

19088964711. 3

19088964712. 4

**Question Number : 104 Question Id : 19088916205 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

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

List I	List II
<b>Method</b>	<b>Purpose</b>
A. QUECHERS	I. Detection
B. ASE	II. Extraction
C. LOD	III. Sensitivity
D. S/N	IV. Clean up
	V. Analysis

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

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

**Options :**

19088964713. 1

19088964714. 2

19088964715. 3

19088964716. 4

**Question Number : 105 Question Id : 19088916206 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

QUECHERS is

1. Quick, easy, cheap, effective, routine and safe
2. Quick, economic, cheap, effective, rugged and safe
3. Quick, easy, cheap, efficient, rugged and safe
4. Quick, easy, cheap, effective, rugged and safe

**Options :**

19088964717. 1

19088964718. 2

19088964719. 3

19088964720. 4

**Question Number : 106 Question Id : 19088916207 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Steps of pesticide residue analysis are

1. Extraction, fortification, cleanup, interpretation, and analysis
2. Extraction, fortification, cleanup, analysis, and interpretation
3. Fortification, extraction, cleanup, analysis, and interpretation
4. Fortification, extraction, cleanup, interpretation, and analysis

**Options :**

19088964721. 1

19088964722. 2

19088964723. 3

19088964724. 4

**Question Number : 107 Question Id : 19088916208 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**



**Correct Marks : 4 Wrong Marks : 1**

NABL stands for

1. National Accreditation Board for Testing and Calibration Laboratories
2. National Association Board for Testing/Calibration Laboratories
3. National Accreditation Board for Calibration and Testing Laboratories
4. National Accreditation Board for Analysis and Calibration Laboratories

**Options :**

19088964725. 1

19088964726. 2

19088964727. 3

19088964728. 4

**Question Number : 108 Question Id : 19088916209 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In India, which of the following organizations deals with the registration, distribution, sale of pesticides

1. Registration Committee
2. Central Insecticide Board
3. Directorate of Plant Protection
4. Central Insecticide Board and Registration Committee

**Options :**

19088964729. 1

19088964730. 2

19088964731. 3

19088964732. 4

**Question Number : 109 Question Id : 19088916210 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

The Food Safety and Standards Act, 2006 replaced which of the following law

1. Prevention of Food Adulteration Act, 1952
2. Prevention of Food Adulteration Act, 1950
3. Prevention of Food Adulteration Act, 1948
4. Prevention of Food Adulteration Act, 1954

**Options :**

19088964733. 1

19088964734. 2

19088964735. 3

19088964736. 4

**Question Number : 110 Question Id : 19088916211 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not the part of the Pesticide Management Bill

1. It promotes less use of pesticides
2. It will empower farmers by providing them with all the information about the strength and weakness of pesticides, the risk and alternatives
3. It has provision for compensations in case there is any loss because of the spurious or low quality of pesticides.
4. No information on pesticide will be available openly

**Options :**

19088964737. 1

19088964738. 2

19088964739. 3

19088964740. 4

**Question Number : 111 Question Id : 19088916212 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not a nitrification inhibitor

1. Nitrapyrin
2. Dicyandiamide
3. Karanjin
4. Betapyrin

**Options :**

19088964741. 1

19088964742. 2

19088964743. 3

19088964744. 4

**Question Number : 112 Question Id : 19088916213 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following is not the principle of IPM

1. Identify pests, their hosts and beneficial organisms before pest control
2. Establish monitoring guidelines for each pest species.
3. Apply pest controlling agents to control pests
4. Evaluate and implement control tactics.

**Options :**

19088964745. 1

19088964746. 2

19088964747. 3

19088964748. 4

**Question Number : 113 Question Id : 19088916214 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Lucerne add nitrogen into soil as a green manure to the tune of

1. 300-400 kg /ha/year
2. 400-500 kg /ha/year
3. 500-600 kg /ha/year
4. 50-100 kg /ha/year

**Options :**

19088964749. 1

19088964750. 2

19088964751. 3

19088964752. 4

**Question Number : 114 Question Id : 19088916215 Question Type : MCQ Option Shuffling : No  
Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

List I	List II
Plant	Purpose
A. Neem	I. Forage
B. Berseem	II. Border crop
C. Marigold	III. Nitrification inhibitor
D. Dhaincha	IV. Green manure

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

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

**Options :**

19088964753. 1

19088964754. 2

19088964755. 3

19088964756. 4

**Question Number : 115 Question Id : 19088916216 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

How much acetamiprid will be there in 1 ml of 1000 times diluted 10 ppm solution

1. 10 micro gram
2. 10 nano gram
3. 10 pico gram
4. 1 nano gram

**Options :**

19088964757. 1

19088964758. 2

19088964759. 3

19088964760. 4

**Question Number : 116 Question Id : 19088916217 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

How much dilution of a 1 ppb solution will make 10 ppm solution

1. 100 times
2. Not possible
3. 1000 times
4. 10 times

**Options :**

19088964761. 1

19088964762. 2

19088964763. 3

19088964764. 4

**Question Number : 117 Question Id : 19088916218 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

2-PAM is useful in the case of which class of pesticides

1. Organophosphorus
2. Organochlorine
3. Synthetic pyrethroids
4. Neonicotinoids

**Options :**

19088964765. 1

19088964766. 2

19088964767. 3

19088964768. 4

**Question Number : 118 Question Id : 19088916219 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

If the dose of a pesticide is 2 ml /L, then how much that pesticide will be required to spray in 1 ha land

1. 1 L
2. 1.5 L
3. 0.5 L
4. 2.5 L

**Options :**

19088964769. 1

19088964770. 2

19088964771. 3

19088964772. 4

**Question Number : 119 Question Id : 19088916220 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

In an experiment, following results were recorded: 12.1, 12.7, 12.5, 12.3, 12.3. We may draw inference that these data are

1. Accurate
2. Precise
3. Not accurate
4. Not precise

**Options :**

19088964773. 1

19088964774. 2

19088964775. 3

19088964776. 4

**Question Number : 120 Question Id : 19088916221 Question Type : MCQ Option Shuffling : No**

**Is Question Mandatory : No**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following terms is defined as the sum of the squared distances of each term in the distribution from the mean ( $\mu$ ), divided by the number of terms in the distribution (N)

1. SD
2. Average
3. Variance
4. Median

**Options :**

19088964777. 1

19088964778. 2

19088964779. 3

19088964780. 4