

# National Testing Agency

**Question Paper Name:** AGRICULTURAL 30th May 2019 Shift2 Set1  
**Subject Name:** AGRICULTURAL  
**Creation Date:** 2019-05-30 19:01:11  
**Duration:** 180  
**Total Marks:** 100  
**Display Marks:** Yes  
**Share Answer Key With Delivery Engine:** Yes  
**Actual Answer Key:** Yes

## AGRICULTURAL

**Group Number :** 1  
**Group Id :** 128206222  
**Group Maximum Duration :** 0  
**Group Minimum Duration :** 120  
**Revisit allowed for view? :** No  
**Revisit allowed for edit? :** No  
**Break time:** 0  
**Group Marks:** 100

## Part - A

**Section Id :** 128206372  
**Section Number :** 1  
**Section type :** Online  
**Mandatory or Optional:** Mandatory  
**Number of Questions:** 30  
**Number of Questions to be attempted:** 30  
**Section Marks:** 30  
**Display Number Panel:** Yes  
**Group All Questions:** No

**Sub-Section Number:** 1  
**Sub-Section Id:** 128206621  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Id : 12820613005 Question Type : MCQ Option Shuffling : No Display Question Number : Yes**  
**Single Line Question Option : No Option Orientation : Vertical**  
**Correct Marks : 1 Wrong Marks : 0**

Find the order of the reaction, if the rate of a gaseous reaction is halved when the volume of the vessel is doubled.

- (a) 1
- (b) 2
- (c) 0
- (d) 3

**Options :**

- 12820651295. A
- 12820651296. B
- 12820651297. C
- 12820651298. D

**Question Number : 2 Question Id : 12820613006 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

The correct statement with respect to the complexes  $\text{Ni}(\text{CO})_4$  and  $[\text{Ni}(\text{CN})_4]^{2-}$  is

- (a) Nickel is in the same oxidation state
- (b) both have tetrahedral geometries
- (c) both have square planar geometries
- (d) have Tetrahedral and Square planar geometry respectively

**Options :**

- 12820651299. A
- 12820651300. B
- 12820651301. C
- 12820651302. D

**Question Number : 3 Question Id : 12820613007 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

For which of the following process is the entropy change zero?

- (a) Isobaric
- (b) Isothermal
- (c) Adiabatic
- (d) Constant volume

**Options :**

- 12820651303. A
- 12820651304. B
- 12820651305. C
- 12820651306. D

**Question Number : 4 Question Id : 12820613008 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Tartaric acid contains two stereogenic centres. How many stereoisomers are possible?

- (a) 2
- (b) 8
- (c) 4
- (d) 3

**Options :**

- 12820651307. A
- 12820651308. B
- 12820651309. C

12820651310. D

Question Number : 5 Question Id : 12820613009 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is more stable cation?

- (a) Secondary butyl cation
- (b) Tertiary Butyl cation
- (c) n-butyl cation
- (d) Methyl cation

Options :

12820651311. A

12820651312. B

12820651313. C

12820651314. D

Question Number : 6 Question Id : 12820613010 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is a uncharged particle

- (a) atom
- (b) neutrino
- (c) proton
- (d) electron

Options :

12820651315. A

12820651316. B

12820651317. C

12820651318. D

Question Number : 7 Question Id : 12820613011 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Free radicals are produced by

- (a) homolytic cleavage
- (b) heterolytic cleavage
- (c) enzymatic cleavage
- (d) oxidative cleavage

Options :

12820651319. A

12820651320. B

12820651321. C

12820651322. D

Question Number : 8 Question Id : 12820613012 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is heterocyclic?

- (a) pyran
- (b) cyclohexane
- (c) benzene
- (d) salicylic acid

Options :

- 12820651323. A
- 12820651324. B
- 12820651325. C
- 12820651326. D

Question Number : 9 Question Id : 12820613013 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Ozone is

- (a) non-magnetic
- (b) para magnetic
- (c) ferro magnetic
- (d) diamagnetic

Options :

- 12820651327. A
- 12820651328. B
- 12820651329. C
- 12820651330. D

Question Number : 10 Question Id : 12820613014 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Solve the following pair of equations:

$$\begin{aligned}2x - y &= 0 \\3x + y &= 40\end{aligned}$$

- (a)  $x = 0, y = 0$
- (b)  $x = 8, y = -16$
- (c)  $x = 8, y = 16$
- (d)  $x = -8, y = -16$

Options :

- 12820651331. A
- 12820651332. B
- 12820651333. C
- 12820651334. D

Question Number : 11 Question Id : 12820613015 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the area bounded by the lines  $y = 4x$ ,  $x = 2$  and  $x = 4$ ?

- (a) 22 sq. units
- (b) 24 sq. units
- (c) 26 sq. units
- (d) 32 sq. units

Options :

- 12820651335. A
- 12820651336. B
- 12820651337. C
- 12820651338. D

Question Number : 12 Question Id : 12820613016 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The function  $y = x^2 + 5$  is a solution of which of the following differential equations?

- (a)  $\frac{d^2y}{dx^2} - x \frac{dy}{dx} = 0$
- (b)  $x \frac{d^2y}{dx^2} + \frac{dy}{dx} = 0$
- (c)  $x \frac{d^2y}{dx^2} - \frac{dy}{dx} = 0$
- (d)  $\frac{d^2y}{dx^2} + x \frac{dy}{dx} = 0$

Options :

- 12820651339. A
- 12820651340. B
- 12820651341. C
- 12820651342. D

Question Number : 13 Question Id : 12820613017 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The polynomial  $x^2 - x - 12$  cuts the x-axis at

- (a)  $x = 0, 0$ .
- (b)  $x = 3, 4$ .
- (c)  $x = -3, 4$ .
- (d)  $x = 3, -4$ .

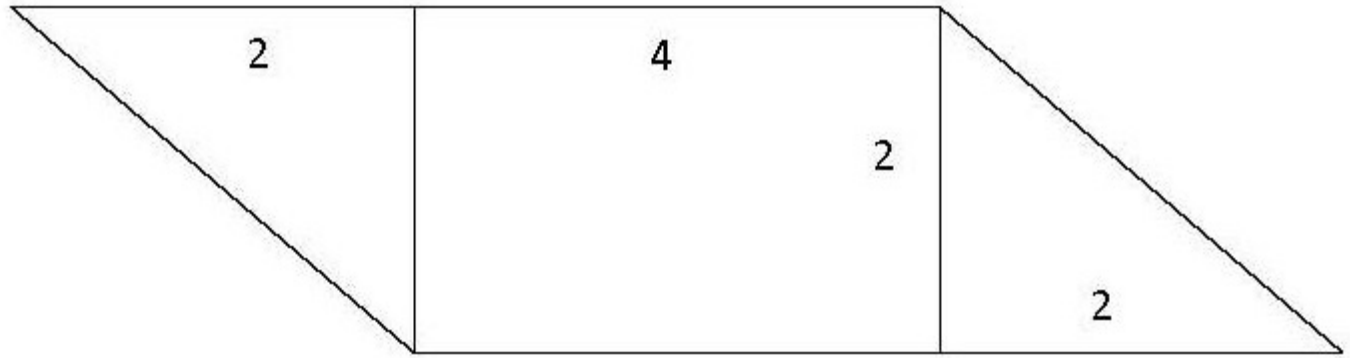
Options :

- 12820651343. A
- 12820651344. B
- 12820651345. C
- 12820651346. D

Question Number : 14 Question Id : 12820613018 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the area of the following figure?



- (a) 10 sq. units
- (b) 12 sq. units
- (c) 16 sq. units
- (d) 20 sq. units

Options :

- 12820651347. A
- 12820651348. B
- 12820651349. C
- 12820651350. D

Question Number : 15 Question Id : 12820613019 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Consider a right triangle ABC right angled at B. If  $\tan A = 1$ , then which of the following is true?

- (a)  $\angle BAC = 45^\circ$
- (b)  $\angle ACB = 30^\circ$
- (c)  $\angle BAC = 60^\circ$
- (d)  $\angle ACB = 60^\circ$

Options :

- 12820651351. A
- 12820651352. B
- 12820651353. C
- 12820651354. D

Question Number : 16 Question Id : 12820613020 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The biggest family of angiosperm is

- (a) *Asteraceae*
- (b) *Poaceae*
- (c) *Brassicaceae*
- (d) *Fabaceae*

Options :

- 12820651355. A
- 12820651356. B
- 12820651357. C

12820651358. D

Question Number : 17 Question Id : 12820613021 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Balanoglossis is an example of

- (a) Chordate
- (b) Hemi-Chordate
- (c) Non-Chordate
- (d) Insects

Options :

12820651359. A

12820651360. B

12820651361. C

12820651362. D

Question Number : 18 Question Id : 12820613022 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which is not a protozoan

- (a) Trypanosoma
- (b) Acanthamoeba
- (c) Entamoeba
- (d) Trichoderma

Options :

12820651363. A

12820651364. B

12820651365. C

12820651366. D

Question Number : 19 Question Id : 12820613023 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The cell organelle involved in packaging and transport of cellular proteins is

- (a) nucleus
- (b) mitochondria
- (c) chloroplast
- (d) Golgi apparatus

Options :

12820651367. A

12820651368. B

12820651369. C

12820651370. D

Question Number : 20 Question Id : 12820613024 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A simple intra cellular signalling pathway is activated by

- (a) extra-cellular molecule
- (b) effector protein molecule
- (c) plasma membrane
- (d) metabolic enzymes

Options :

- 12820651371. A
- 12820651372. B
- 12820651373. C
- 12820651374. D

Question Number : 21 Question Id : 12820613025 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The proton gradient serves as an energy store that can be used to drive

- (a) ATP break-down
- (b) water break-down
- (c) synthesis of protein
- (d) ATP synthesis

Options :

- 12820651375. A
- 12820651376. B
- 12820651377. C
- 12820651378. D

Question Number : 22 Question Id : 12820613026 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following is the weakest interaction in terms of energy out of the following four interactions

- (a) Hydrogen bonding
- (b) Van-der Waals interaction
- (c) Electrostatic interaction
- (d) Hydrophobic interaction

Options :

- 12820651379. A
- 12820651380. B
- 12820651381. C
- 12820651382. D

Question Number : 23 Question Id : 12820613027 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0



You want to throw a ball to a height of 20 m from the ground. With what speed it should be thrown vertically? (use  $g = 10 \text{ m/s}^2$ )

- (a) 10 m/s
- (b) 20 m/s
- (c) 30 m/s
- (d) 40 m/s

Options :

12820651383. A

12820651384. B

12820651385. C

12820651386. D

Question Number : 24 Question Id : 12820613028 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Who proposed the elliptical orbit of earth around sun.

- (a) Kepler
- (b) Faraday
- (c) Galileo
- (d) Einstein

Options :

12820651387. A

12820651388. B

12820651389. C

12820651390. D

Question Number : 25 Question Id : 12820613029 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Name the type of clock which gives accurate time.

- (a) Cesium atom model
- (b) Hydrogen vacuum model
- (c) Gold plated power chamber model
- (d) Light diffraction model

Options :

12820651391. A

12820651392. B

12820651393. C

12820651394. D

Question Number : 26 Question Id : 12820613030 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Who was awarded Nobel Prize for explanation of photo electric effect?

- (a) Marie Curie
- (b) Albert Einstein
- (c) J J Thomson
- (d) C V Raman

Options :

- 12820651395. A
- 12820651396. B
- 12820651397. C
- 12820651398. D

Question Number : 27 Question Id : 12820613031 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The slope of the line on a position- time graph is equal to the \_\_\_\_\_ of the object.

- (a) Velocity
- (b) Acceleration
- (c) Speed
- (d) Distance

Options :

- 12820651399. A
- 12820651400. B
- 12820651401. C
- 12820651402. D

Question Number : 28 Question Id : 12820613032 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

“At constant pressure, the volume of a given mass of gas is directly proportional to its absolute temperature”. This law is called

- (a) Charles law
- (b) Boyles law
- (c) Ideal gas law
- (d) Boyers law

Options :

- 12820651403. A
- 12820651404. B
- 12820651405. C
- 12820651406. D

Question Number : 29 Question Id : 12820613033 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following devices work on principle of mutual induction.

- (a) LED
- (b) Transformers
- (c) Photodiode
- (d) Tube light

Options :

- 12820651407. A
- 12820651408. B
- 12820651409. C
- 12820651410. D

Question Number : 30 Question Id : 12820613034 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Cryogenic engines find application in

- (a) Frost free refrigerators
- (b) Submarine propulsion
- (c) Rocket technology
- (d) Researches in superconductivity

Options :

- 12820651411. A
- 12820651412. B
- 12820651413. C
- 12820651414. D

Part - B

Section Id :	128206373
Section Number :	2
Section type :	Online
Mandatory or Optional:	Mandatory
Number of Questions:	100
Number of Questions to be attempted:	70
Section Marks:	70
Display Number Panel:	Yes
Group All Questions:	No

Sub-Section Number:	1
Sub-Section Id:	128206622
Question Shuffling Allowed :	Yes

Question Number : 31 Question Id : 12820613035 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The most extensive soil type found in India is \_\_\_\_\_ soil

- (a) Black
- (b) Red
- (c) Alluvial
- (d) Laterite

Options :

- 12820651415. A
- 12820651416. B
- 12820651417. C
- 12820651418. D

Question Number : 32 Question Id : 12820613036 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The simplest and inexpensive method for estimating evapotranspiration is

- (a) Lysimeter
- (b) Pan evaporimeter
- (c) Radiation
- (d) Blaney-Criddle

Options :

- 12820651419. A
- 12820651420. B
- 12820651421. C
- 12820651422. D

Question Number : 33 Question Id : 12820613037 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The water requirement of Maize is

- (a) 250 mm
- (b) 500 mm
- (c) 1000 mm
- (d) 900 mm

Options :

- 12820651423. A
- 12820651424. B
- 12820651425. C
- 12820651426. D

Question Number : 34 Question Id : 12820613038 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

One hectare centimeter is

- (a) 1,000 litre
- (b) 10,000 litres
- (c) 1,00,000 litres
- (d) 10,00,000 litres

Options :

12820651427. A

12820651428. B

12820651429. C

12820651430. D

Question Number : 35 Question Id : 12820613039 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

White muscardine entomopathogenic fungus is

- (a) *Beaveria bassiana*
- (b) *Metarhizium anisopliae*
- (c) *Verticillium lecanii*
- (d) *Hirsutella thomsoni*

Options :

12820651431. A

12820651432. B

12820651433. C

12820651434. D

Question Number : 36 Question Id : 12820613040 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Quantity of liquid insecticide with 25% active ingredient to spray 0.25% concentration using 500 litre of spray fluid is

- (a) 1.25 litre
- (b) 2.50 litre
- (c) 5.00 litre
- (d) 10.00 litre

Options :

12820651435. A

12820651436. B

12820651437. C

12820651438. D

Question Number : 37 Question Id : 12820613041 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Quantity of phosphine expected from 3 gram aluminium phosphide is

- (a) 1 gram
- (b) 2 gram
- (c) 3 gram
- (d) 4 gram

Options :

12820651439. A

12820651440. B

12820651441. C

12820651442. D

Question Number : 38 Question Id : 12820613042 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Two celled dark colored conidia are found in

- (a) *Cladosporium*
- (b) *Cylindrocladium*
- (c) *Pyricularia*
- (d) *Rhynchosporium*

Options :

12820651443. A

12820651444. B

12820651445. C

12820651446. D

Question Number : 39 Question Id : 12820613043 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The toxin produced by the fungus *Bipolaris oryzae* is

- (a) Ophiobolin
- (b) Picolinic acid
- (c) Alternaric acid
- (d) Fusaric acid

Options :

12820651447. A

12820651448. B

12820651449. C

12820651450. D

Question Number : 40 Question Id : 12820613044 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is NOT one of the Koch's postulates ?

- (a) The organism is regularly found in the lesions of the disease
- (b) The organism can be isolated from diseased tissue in pure culture on artificial medium
- (c) Inoculation of this pure culture produces disease in experimental plants
- (d) Treatment of the disease with broad spectrum antimicrobial agent dependably eradicates the organism and cures the disease

Options :

- 12820651451. A
- 12820651452. B
- 12820651453. C
- 12820651454. D

Question Number : 41 Question Id : 12820613045 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Acid rain contains mainly

- (a)  $PO_4$
- (b)  $NO_2$
- (c)  $NH_3$
- (d)  $CH_4$

Options :

- 12820651455. A
- 12820651456. B
- 12820651457. C
- 12820651458. D

Question Number : 42 Question Id : 12820613046 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The interaction between two species favourable to both but not obligatory

- (a) Mutualism
- (b) Commensalism
- (c) Protocooperation
- (d) Neutralism

Options :

- 12820651459. A
- 12820651460. B
- 12820651461. C
- 12820651462. D

Question Number : 43 Question Id : 12820613047 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Cartagena protocol deals with

- (a) Biodiversity
- (b) Hazardous waste handling
- (c) Bio-safety
- (d) Wetland conservation

Options :

- 12820651463. A
- 12820651464. B
- 12820651465. C
- 12820651466. D

Question Number : 44 Question Id : 12820613048 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Pungency in radish is due to

- (a) Solanin
- (b) Capcisin
- (c) Isothiocyanate
- (d) Calcium acetate

Options :

- 12820651467. A
- 12820651468. B
- 12820651469. C
- 12820651470. D

Question Number : 45 Question Id : 12820613049 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following crop is an amphidiploid?

- (a) Tomato
- (b) Bhendi
- (c) Chilli
- (d) Brinjal

Options :

- 12820651471. A
- 12820651472. B
- 12820651473. C
- 12820651474. D

Question Number : 46 Question Id : 12820613050 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0



**Heterostyly favours**

- (a) Cross pollination
- (b) Self pollination
- (c) Sterility
- (d) Protogyne

**Options :**

- 12820651475. A
- 12820651476. B
- 12820651477. C
- 12820651478. D

**Question Number : 47 Question Id : 12820613051 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

**Banana fruit is classified in the category of**

- (a) Drupes
- (b) Pomes
- (c) Berries
- (d) Nuts

**Options :**

- 12820651479. A
- 12820651480. B
- 12820651481. C
- 12820651482. D

**Question Number : 48 Question Id : 12820613052 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

**Which type of oil palm is widely cultivated in India?**

- (a) Dura
- (b) Pisifera
- (c) Tenera
- (d) Dybowskii

**Options :**

- 12820651483. A
- 12820651484. B
- 12820651485. C
- 12820651486. D

**Question Number : 49 Question Id : 12820613053 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Latex contain about \_\_\_\_\_% rubber.

- (a) 1-9%
- (b) 10-19%
- (c) 20-29%
- (d) 30-40%

Options :

- 12820651487. A
- 12820651488. B
- 12820651489. C
- 12820651490. D

Question Number : 50 Question Id : 12820613054 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Site index is a term used by foresters to explain the relationship of \_\_\_\_\_ in forest stands.

- (a) height to age
- (b) diameter to age
- (c) diameter to height
- (d) volume to age

Options :

- 12820651491. A
- 12820651492. B
- 12820651493. C
- 12820651494. D

Question Number : 51 Question Id : 12820613055 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Girdling is a method used to

- (a) Removal of a strip of bark around the entire circumference of a tree
- (b) Harvest mature trees
- (c) Properly space veneer quality trees
- (d) Produce knot free lumber

Options :

- 12820651495. A
- 12820651496. B
- 12820651497. C
- 12820651498. D

Question Number : 52 Question Id : 12820613056 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The rate of transpiration is high when

- (a) Soil is wet and the air is dry
- (b) Both soil and air are dry
- (c) Soil is wet and the air is humid
- (d) Soil is dry and the air is humid

Options :

- 12820651499. A
- 12820651500. B
- 12820651501. C
- 12820651502. D

Question Number : 53 Question Id : 12820613057 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Substrate level phosphorylation occurs during

- (a) Light reaction
- (b) Photorespiration
- (c) Gas exchange
- (d) Glycolysis

Options :

- 12820651503. A
- 12820651504. B
- 12820651505. C
- 12820651506. D

Question Number : 54 Question Id : 12820613058 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following is NOT an antigibberellin?

- (a) Phosphon D
- (b) AMO 1618
- (c) Maleic Hydrazide
- (d) Triiodobenzoic acid

Options :

- 12820651507. A
- 12820651508. B
- 12820651509. C
- 12820651510. D

Question Number : 55 Question Id : 12820613059 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Molecular formulae of chlorophyll a and b respectively are

(a)  $C_{55}H_{70}O_6N_4Mg$  &  $C_{55}H_{72}O_5N_4Mg$

(b)  $C_{55}H_{72}O_5N_4Mg$  &  $C_{55}H_{70}O_6N_4Mg$

(c)  $C_{40}H_{56}$  &  $C_{40}H_{56}O_2$

(d)  $C_{40}H_{56}O_2$  &  $C_{40}H_{56}$

Options :

12820651511. A

12820651512. B

12820651513. C

12820651514. D

Question Number : 56 Question Id : 12820613060 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which element is metal component of urease enzyme?

(a) Sodium

(b) Nickel

(c) Silicon

(d) Molybdenum

Options :

12820651515. A

12820651516. B

12820651517. C

12820651518. D

Question Number : 57 Question Id : 12820613061 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following soil type has the highest field capacity?

(a) Loam

(b) Silty loam

(c) Clayey loam

(d) Clay

Options :

12820651519. A

12820651520. B

12820651521. C

12820651522. D

Question Number : 58 Question Id : 12820613062 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Soils formed due to the dominant effect of parent materials are called as

- (a) Ectodynamomorphitic
- (b) Endodynamomorphitic
- (c) Hydrodynamomorphitic
- (d) Holomorphitic

Options :

- 12820651523. A
- 12820651524. B
- 12820651525. C
- 12820651526. D

Question Number : 59 Question Id : 12820613063 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Soil containing 20-50% of well decomposed organic matter is called

- (a) Organic soil
- (b) Marshy soil
- (c) Muck soil
- (d) Oxisol

Options :

- 12820651527. A
- 12820651528. B
- 12820651529. C
- 12820651530. D

Question Number : 60 Question Id : 12820613064 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Presence of the structure in seed that aids in seed dispersal by ants is

- (a) Caruncle
- (b) Aril
- (c) Hairs
- (d) Elaeiosome

Options :

- 12820651531. A
- 12820651532. B
- 12820651533. C
- 12820651534. D

Question Number : 61 Question Id : 12820613065 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Isolation distance for a seed crop depends on

- (a) Flowering behaviour
- (b) Pollination behaviour
- (c) Fertilization capacity
- (d) Receptivity of stigma

Options :

12820651535. A

12820651536. B

12820651537. C

12820651538. D

Question Number : 62 Question Id : 12820613066 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The person responsible for quality control in the seed market channel is

- (a) Seed Inspector
- (b) Certification Officer
- (c) Seed Analyst
- (d) Agricultural Officer

Options :

12820651539. A

12820651540. B

12820651541. C

12820651542. D

Question Number : 63 Question Id : 12820613067 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The number of independent observations which are free to vary is known as

- (a) Sample size
- (b) Cluster
- (c) Degrees of freedom
- (d) Strata

Options :

12820651543. A

12820651544. B

12820651545. C

12820651546. D

Question Number : 64 Question Id : 12820613068 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Testing of goodness of fit is done by

- (a) F test
- (b) Z test
- (c) Student's t-test
- (d) Chi square test

Options :

- 12820651547. A
- 12820651548. B
- 12820651549. C
- 12820651550. D

Question Number : 65 Question Id : 12820613069 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How many parameter(s) is/ are there in binomial distribution?

- (a) 1
- (b) 2
- (c) 3
- (d) 4

Options :

- 12820651551. A
- 12820651552. B
- 12820651553. C
- 12820651554. D

Question Number : 66 Question Id : 12820613070 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Among the following four, which divides a set of data into four subsets?

- (a) Percentile
- (b) Decile
- (c) Median
- (d) Quartiles

Options :

- 12820651555. A
- 12820651556. B
- 12820651557. C
- 12820651558. D

Question Number : 67 Question Id : 12820613071 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Foot and mouth disease is a \_\_\_\_\_ disease of cattle.

- (a) Parasitic
- (b) Viral
- (c) Bacterial
- (d) Fungal

Options :

- 12820651559. A
- 12820651560. B
- 12820651561. C
- 12820651562. D

Question Number : 68 Question Id : 12820613072 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

## Gestation period of cattle is

- (a) 280 days
- (b) 380 days
- (c) 305 days
- (d) 250 days

Options :

- 12820651563. A
- 12820651564. B
- 12820651565. C
- 12820651566. D

Question Number : 69 Question Id : 12820613073 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Vitamin C, beta hydroxy acids and vitamin E are

- (a) flavor enhancers
- (b) anti-microbial agents
- (c) antioxidants
- (d) preservatives

Options :

- 12820651567. A



12820651568. B  
12820651569. C  
12820651570. D

Question Number : 70 Question Id : 12820613074 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

- Microbial cause of spoilage of honey is due to
- (a) *Zygosaccharomyces*
  - (b) *Azotobacter*
  - (c) *Fusarium*
  - (d) *Candida*

Options :

12820651571. A  
12820651572. B  
12820651573. C  
12820651574. D

Question Number : 71 Question Id : 12820613075 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

- \_\_\_\_\_ is a prerequisite for any conventional crop improvement programme
- (a) Evaluation
  - (b) Genetic variation
  - (c) Selection
  - (d) Multiplication

Options :

12820651575. A  
12820651576. B  
12820651577. C  
12820651578. D

Question Number : 72 Question Id : 12820613076 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

- Under monofactorial gametophytic system, the fully compatible mating is
- (a)  $S_1 S_2 \times S_3 S_4$
  - (b)  $S_1 S_2 \times S_1 S_2$
  - (c)  $S_1 S_2 \times S_2 S_3$
  - (d)  $S_1 S_3 \times S_2 S_3$

Options :

12820651579. A

12820651580. B  
12820651581. C  
12820651582. D

**Question Number : 73 Question Id : 12820613077 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

While measuring the variability, the measure of uncontrolled variation present in a sample is

- (a) Standard deviation
- (b) Standard error
- (c) Coefficient of variation
- (d) Genetic diversity

**Options :**

12820651583. A  
12820651584. B  
12820651585. C  
12820651586. D

**Question Number : 74 Question Id : 12820613078 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

One of the following helps plant breeders in selection of suitable parents for hybridization as well as to decide appropriate breeding procedure

- (a) Diallel analysis
- (b) Path analysis
- (c) Correlation coefficient analysis
- (d) Variance

**Options :**

12820651587. A  
12820651588. B  
12820651589. C  
12820651590. D

**Question Number : 75 Question Id : 12820613079 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 1 Wrong Marks : 0**

Breeding crops for improved nutritional quality is referred to as

- (a) Bionutrition
- (b) Biofertilisation
- (c) Bioremediation
- (d) Biofortification

**Options :**

12820651591. A  
12820651592. B  
12820651593. C  
12820651594. D

Question Number : 76 Question Id : 12820613080 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A random change in gene frequency due to sampling error in a random mating population is

- (a) Migration
- (b) Genetic drift
- (c) Breakdown
- (d) Mutation

Options :

12820651595. A

12820651596. B

12820651597. C

12820651598. D

Question Number : 77 Question Id : 12820613081 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Phenotypic assortative mating will lead to

- (a) increase in homozygosity
- (b) increase in heterozygosity
- (c) decrease in hemizyosity
- (d) decrease in homozygosity

Options :

12820651599. A

12820651600. B

12820651601. C

12820651602. D

Question Number : 78 Question Id : 12820613082 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Hybrid between dominant pure breeding red flowered plant was crossed to a recessive white flowered plant. The F1 was back-crossed to pure breeding red flower plant. What will be the flower colour of the progeny of this cross?

- (a) All red flowers
- (b) All white flowers
- (c) 3 red flowers: 1 white flower
- (d) 1 red flower: 1 white flower

Options :

12820651603. A

12820651604. B

12820651605. C

12820651606. D

Question Number : 79 Question Id : 12820613083 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

When crossing a recessive strain as female parent and dominant one as male parent, if all the resultant progeny resembles the female parent then this phenomenon is referred as

- (a) Facultative apomixis
- (b) Polyembryomy
- (c) Obligate apomixis
- (d) Dicliny

Options :

12820651607. A

12820651608. B

12820651609. C

12820651610. D

Question Number : 80 Question Id : 12820613084 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If a male sterile line is crossed with heterogeneous male fertile plants and the progeny segregated as 1:1 male fertile and sterile plants, then the male sterility is

- (a) Cytoplasmic male sterility
- (b) Genic male sterility
- (c) Cytoplasmic genic male sterility
- (d) Environment sensitive male sterility

Options :

12820651611. A

12820651612. B

12820651613. C

12820651614. D

Question Number : 81 Question Id : 12820613085 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

During an enzyme catalyzed reaction, the equilibrium constant

- (a) increases
- (b) decreases
- (c) remains unchanged
- (d) can increase or decrease, depending on the enzyme

Options :

12820651615. A

12820651616. B

12820651617. C

12820651618. D

Question Number : 82 Question Id : 12820613086 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which one of the following is not a sensible grouping of amino acids based on their polarity properties?

- (a) Ala, Leu and Val
- (b) Arg, His and Lys
- (c) Phe, Trp and Pro
- (d) Asp, Ile and Pro

Options :

12820651619. A

12820651620. B

12820651621. C

12820651622. D

Question Number : 83 Question Id : 12820613087 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The catalytic activity of two different enzymes can be compared by the

- (a)  $K_m$  value
- (b) pH optimum value
- (c) Molecular size of the enzyme
- (d) Formation of the product

Options :

12820651623. A

12820651624. B

12820651625. C

12820651626. D

Question Number : 84 Question Id : 12820613088 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

What is the E-site of the ribosome?

- (a) The site where eukaryotic mRNA is processed
- (b) Site at which elongation factors are recruited
- (c) The site where tRNA exits in the prokaryotic ribosome
- (d) The entry point of aminoacyl tRNA

Options :

12820651627. A

12820651628. B

12820651629. C

12820651630. D

Question Number : 85 Question Id : 12820613089 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following are similar between transcription in prokaryotes and eukaryotes?

- (a) RNA polymerase binds to ribosomes to initiate transcription
- (b) RNA polymerase produces mRNA which grows in the 5' to 3' direction
- (c) polyA tail is added to the 3' end of the transcript
- (d) Introns are spliced out after transcription

Options :

12820651631. A

12820651632. B

12820651633. C

12820651634. D

Question Number : 86 Question Id : 12820613090 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

One of the following is not an omega 3 fatty acid

- (a) Alpha linolenic acid
- (b) Docosahexaenoic acid
- (c) Eicosapentaenoic acid
- (d) Gamma linolenic acid

Options :

12820651635. A

12820651636. B

12820651637. C

12820651638. D

Question Number : 87 Question Id : 12820613091 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Beta-pleated sheets are the examples of

- (a) Primary structure of protein
- (b) Secondary structure of protein
- (c) Tertiary structure of protein
- (d) Quaternary structure of protein

Options :

12820651639. A

12820651640. B

12820651641. C

12820651642. D

Question Number : 88 Question Id : 12820613092 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following is true about phosphodiester bond?

- (a) 5' phosphate group of one nucleotide is joined to 3' hydroxyl group of the next nucleotide
- (b) 5' phosphate group of one nucleotide is joined to 5' hydroxyl group of the next nucleotide
- (c) 3' phosphate group of one nucleotide is joined to 3' hydroxyl group of the next nucleotide
- (d) 3' phosphate group of one nucleotide is joined to 5' hydroxyl group of the next nucleotide

Options :

12820651643. A

12820651644. B

12820651645. C

12820651646. D

Question Number : 89 Question Id : 12820613093 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The light reaction of photosynthesis takes place in

- (a) matrix
- (b) stroma
- (c) inner membrane of chloroplast
- (d) outer membrane of chloroplast

Options :

12820651647. A

12820651648. B

12820651649. C

12820651650. D

Question Number : 90 Question Id : 12820613094 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Enzymes catalyze reactions by

- (a) Increasing activation energy
- (b) Reducing activation energy
- (c) Producing energy for activation
- (d) Absorbing activation energy

Options :

12820651651. A

12820651652. B

12820651653. C

12820651654. D

Question Number : 91 Question Id : 12820613095 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of the following would be a valuable application of a karyotyping?

- (a) Microscopic analysis could allow identification of unusual cellular structures
- (b) An individual could be matched to a forensic sample based on identical karyotypes
- (c) Specific gene which causes a genetic disorder could be identified
- (d) Genetic disorders caused by chromosomal rearrangements could be diagnosed

Options :

12820651655. A

12820651656. B

12820651657. C

12820651658. D

Question Number : 92 Question Id : 12820613096 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In plant cells, the intercellular transport of solutes through plasmodesmata is known as

- (a) Active transport
- (b) Symplastic transport
- (c) Membrane transport
- (d) Osmosis

Options :

12820651659. A

12820651660. B

12820651661. C

12820651662. D

Question Number : 93 Question Id : 12820613097 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which organelle is responsible for destroying worn-out cell parts?

- (a) Lysosomes
- (b) Chloroplast
- (c) Mitochondrion
- (d) Ribosome

Options :

12820651663. A

12820651664. B

12820651665. C

12820651666. D

Question Number : 94 Question Id : 12820613098 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0



\_\_\_\_\_ are located on the rough endoplasmic reticulum.

- (a) Lysosome
- (b) Golgi bodies
- (c) Ribosome
- (d) Chromatin

Options :

- 12820651667. A
- 12820651668. B
- 12820651669. C
- 12820651670. D

Question Number : 95 Question Id : 12820613099 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Oxidative metabolism is carried out \_\_\_\_\_ of mitochondria.

- (a) in the intermembrane space
- (b) on the surface of the inner membrane
- (c) in the inside of the outer membrane
- (d) in the matrix

Options :

- 12820651671. A
- 12820651672. B
- 12820651673. C
- 12820651674. D

Question Number : 96 Question Id : 12820613100 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

How large is a typical chloroplast genome?

- (a) 1.5 kbp
- (b) 10 kbp
- (c) 150 kbp
- (d) 1500 kbp

Options :

- 12820651675. A
- 12820651676. B
- 12820651677. C
- 12820651678. D

Question Number : 97 Question Id : 12820613101 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which is NOT a characteristic of mitochondria?

- (a) A mitochondrion has two membranes
- (b) Mitochondria are the site of cellular respiration
- (c) Mitochondria are found in prokaryotic and eukaryotic cells
- (d) Mitochondria contains DNA and ribosomes

Options :

12820651679. A

12820651680. B

12820651681. C

12820651682. D

Question Number : 98 Question Id : 12820613102 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Histone NOT found in nucleosome core is

- (a) H1
- (b) H2A
- (c) H2B
- (d) H3

Options :

12820651683. A

12820651684. B

12820651685. C

12820651686. D

Question Number : 99 Question Id : 12820613103 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The ratio of purines and pyrimidines in mRNA is not 1:1, because the nitrogenous bases are

- (a) Unpaired
- (b) Paired
- (c) Paired only in loops
- (d) Paired noncanonically

Options :

12820651687. A

12820651688. B

12820651689. C

12820651690. D

Question Number : 100 Question Id : 12820613104 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Telomerase is a

- (a) DNA dependant RNA polymerase
- (b) DNA dependant DNA polymerase
- (c) RNA dependant RNA polymerase
- (d) RNA dependant DNA polymerase

Options :

12820651691. A

12820651692. B

12820651693. C

12820651694. D

Question Number : 101 Question Id : 12820613105 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The infection process in which a bacterial cell remain undestroyed and unaffected even in the presence of phage is called as

- (a) Plaques
- (b) Virion
- (c) Viroid
- (d) Lysogeny

Options :

12820651695. A

12820651696. B

12820651697. C

12820651698. D

Question Number : 102 Question Id : 12820613106 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Penicillin inhibits bacterial pathogen multiplication by

- (a) Inhibiting protein synthesis
- (b) Inhibiting cell wall synthesis
- (c) Inhibiting amino acid synthesis
- (d) Destroying chromatin

Options :

12820651699. A

12820651700. B

12820651701. C

12820651702. D

Question Number : 103 Question Id : 12820613107 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The chlorophyll molecules used by eucaryotes and cyanobacteria absorb radiant energy in the \_\_\_\_\_ portion(s) of the visible spectrum

- (a) red
- (b) green
- (c) red and blue
- (d) green and ultraviolet

Options :

- 12820651703. A
- 12820651704. B
- 12820651705. C
- 12820651706. D

Question Number : 104 Question Id : 12820613108 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The bacteria can be purified by \_\_\_\_\_ method

- (a) Single hyphal tip
- (b) Streak plate
- (c) Single spore isolation
- (d) Buried slide

Options :

- 12820651707. A
- 12820651708. B
- 12820651709. C
- 12820651710. D

Question Number : 105 Question Id : 12820613109 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The process in which bacterial DNA is transferred from one cell to another with the help of virus is called \_\_\_\_\_.

- (a) Conjugation
- (b) Mutation
- (c) Transduction
- (d) Transformation

Options :

- 12820651711. A
- 12820651712. B
- 12820651713. C
- 12820651714. D

Question Number : 106 Question Id : 12820613110 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A bacterium predating on bacteria

- (a) *Cytophaga*
- (b) *Vibrio*
- (c) *Bdellovibrio*
- (d) *Clostridium*

Options :

12820651715. A

12820651716. B

12820651717. C

12820651718. D

Question Number : 107 Question Id : 12820613111 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Anaerobic nitrogen fixing bacteria present in rice field

- (a) *Pseudomonas*
- (b) *Nostoc*
- (c) *Clostridium*
- (d) *Enterobacter*

Options :

12820651719. A

12820651720. B

12820651721. C

12820651722. D

Question Number : 108 Question Id : 12820613112 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

This enzyme best represents the soil microbial activities

- (a) Dehydrogenase
- (b) Urease
- (c) Beta-Glucosidase
- (d) Phosphatase

Options :

12820651723. A

12820651724. B

12820651725. C

12820651726. D

Question Number : 109 Question Id : 12820613113 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A low molecular organic compound produced by Rhizobacteria to bind iron are

- (a) Siderophores
- (b) Metalothionine
- (c) Flavanoids
- (d) Extra cellular polysaccharide

Options :

12820651727. A

12820651728. B

12820651729. C

12820651730. D

Question Number : 110 Question Id : 12820613114 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Extensive sequential nucleotide analysis and analysis of rRNA has divided the living world into three domains called

- (a) bacteria, archaea and eukarya
- (b) fungi, plants and animals
- (c) procarya, eukarya and animals
- (d) archaea, eukarya and viruses

Options :

12820651731. A

12820651732. B

12820651733. C

12820651734. D

Question Number : 111 Question Id : 12820613115 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Plant cells release one of the following chemicals after wounding, which attracts *Agrobacterium*

- (a) Lipids
- (b) Protein
- (c) Hormones
- (d) Phenolics

Options :

12820651735. A

12820651736. B

12820651737. C

12820651738. D

Question Number : 112 Question Id : 12820613116 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The discrepancy in direct relationship between genome size and complexity is referred to as

- (a) Synteny
- (b) C value paradox
- (c) Colinearity
- (d) Genome complexity

Options :

- 12820651739. A
- 12820651740. B
- 12820651741. C
- 12820651742. D

Question Number : 113 Question Id : 12820613117 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Taq polymerase usually adds \_\_\_\_\_ to the end of the polymerized strand of DNA

- (a) dCTP
- (b) dGTP
- (c) dATP
- (d) dTTP

Options :

- 12820651743. A
- 12820651744. B
- 12820651745. C
- 12820651746. D

Question Number : 114 Question Id : 12820613118 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which of these enzymes produces blunt ended DNA fragments?

- (a) *EcoRI*
- (b) *BamHI*
- (c) *EcoRV*
- (d) *HindIII*

Options :

- 12820651747. A
- 12820651748. B
- 12820651749. C
- 12820651750. D

Question Number : 115 Question Id : 12820613119 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In the Lac-operon

- (a) the genes in the operon are always expressed
- (b) the genes in the operon are expressed when lactose is present
- (c) the genes in the operon are expressed when lactose is absent
- (d) the genes are expressed in presence of tryptophan

Options :

- 12820651751. A
- 12820651752. B
- 12820651753. C
- 12820651754. D

Question Number : 116 Question Id : 12820613120 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Due to which of the following DNA repair mechanisms, one is able to distinguish newly synthesized DNA strands from older one?

- (a) New strands do not contain cytosine bases
- (b) New strands are lower in molecular size
- (c) Old strands are methylated while new strands are not
- (d) New strands are methylated while old strands are not

Options :

- 12820651755. A
- 12820651756. B
- 12820651757. C
- 12820651758. D

Question Number : 117 Question Id : 12820613121 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

In bacterial promoters, which of the following describes 'Pribnow Box'?

- (a) 5' untranslated region
- (b) -10 sequence
- (c) -35 sequence
- (d) termination sequence

Options :

- 12820651759. A
- 12820651760. B
- 12820651761. C
- 12820651762. D

Question Number : 118 Question Id : 12820613122 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0



The technique used to locate specific genes in chromosome is

- (a) Colony hybridization
- (b) *In situ* hybridization
- (c) Dot blot technique
- (d) Southern blot hybridization

Options :

12820651763. A

12820651764. B

12820651765. C

12820651766. D

Question Number : 119 Question Id : 12820613123 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If the gene to be cloned is in the size range between 28 and 45 Kb, what will be the ideal vector of choice ?

- (a) Plasmid
- (b) Cosmid
- (c) lamda Phage
- (d) BAC vector

Options :

12820651767. A

12820651768. B

12820651769. C

12820651770. D

Question Number : 120 Question Id : 12820613124 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

If a double stranded DNA has 20% of cytosine, calculate the percentage of adenine in the DNA

- (a) 30
- (b) 60
- (c) 20
- (d) 80

Options :

12820651771. A

12820651772. B

12820651773. C

12820651774. D

Question Number : 121 Question Id : 12820613125 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Highly repetitive DNA found near centromeres is called

- (a) Genic DNA
- (b) Intragenic DNA
- (c) Satellite DNA
- (d) Selfish DNA

Options :

- 12820651775. A
- 12820651776. B
- 12820651777. C
- 12820651778. D

Question Number : 122 Question Id : 12820613126 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

*ColE1* origin of replication is

- (a) *E. coli* plasmid origin of replication
- (b) *E. coli* chromosome origin of replication
- (c) *B. subtilis* origin of replication
- (d) Yeast origin of replication

Options :

- 12820651779. A
- 12820651780. B
- 12820651781. C
- 12820651782. D

Question Number : 123 Question Id : 12820613127 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

One of the following is a tissue specific promoter

- (a) Nos promoter
- (b) Rice actin promoter
- (c) Rice glutelin promoter
- (d) Maize ubiquitin promoter

Options :

- 12820651783. A
- 12820651784. B
- 12820651785. C
- 12820651786. D

Question Number : 124 Question Id : 12820613128 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Targetted suppression of gene expression or gene silencing is achieved by

- (a) T-DNA insertion
- (b) EMS
- (c) Gamma rays
- (d) RNA interference

Options :

- 12820651787. A
- 12820651788. B
- 12820651789. C
- 12820651790. D

Question Number : 125 Question Id : 12820613129 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

A section of a sequence that begins with an initiation codon and ends with a stop codon is \_\_\_\_\_

- (a) Untranslated Region (UTR)
- (b) Open Reading Frame (ORF)
- (c) Exon
- (d) Intron

Options :

- 12820651791. A
- 12820651792. B
- 12820651793. C
- 12820651794. D

Question Number : 126 Question Id : 12820613130 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

\_\_\_\_\_ is a gene based marker.

- (a) RAPD
- (b) ISSR
- (c) SNP
- (d) SSR

Options :

- 12820651795. A
- 12820651796. B
- 12820651797. C
- 12820651798. D

Question Number : 127 Question Id : 12820613131 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

\_\_\_\_\_ are *in-vitro* derived mapping population.

- (a) NILs
- (b) RILs
- (c) F2s
- (d) DH lines

Options :

12820651799. A

12820651800. B

12820651801. C

12820651802. D

Question Number : 128 Question Id : 12820613132 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

The distance between two markers in a eukaryotic genetic map is usually represented by

- (a) kb
- (b) kDa
- (c) kb
- (d) cM

Options :

12820651803. A

12820651804. B

12820651805. C

12820651806. D

Question Number : 129 Question Id : 12820613133 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Which genetically modified trait occupies the largest area in the world?

- (a) Insect resistance
- (b) Virus resistance
- (c) Herbicide tolerance
- (d) Drought tolerance

Options :

12820651807. A

12820651808. B

12820651809. C

12820651810. D

Question Number : 130 Question Id : 12820613134 Question Type : MCQ Option Shuffling : No Display Question Number : Yes  
Single Line Question Option : No Option Orientation : Vertical

Correct Marks : 1 Wrong Marks : 0

Involvement of sugarcane phytoalexins in red-rot resistance has been observed. The phytoalexin compound is reported to be

- (a) 3-deoxyanthocyanidin
- (b) Luteolinidin
- (c) Apigeninidin
- (d) 5-O apigeninidin

**Options :**

- 12820651811. A
- 12820651812. B
- 12820651813. C
- 12820651814. D