

BT403

AGRICULTURE BIOTECHNOLOGY

QUIZ #1 , 28 JUNE 2022

TOPICS: 10 – 30

SOLVED BY TABIH FATIMA

ADMIN: ALL ABOUT BIOTECH

ALL ABOUT BIOTECH

9:14

154 K/s 81



quiz.vu.edu.pk/Q



BC200201845: TAYYABA SAEED

Time Left 72 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:07 AM, 29 June 2022

Question # 10 of 10 (Start time: 09:13:52 AM, 29 June 2022)

Total Marks:

There are ____ phases of regeneration

Select the correct option



Two



Three



Four



Five

Click to Save Answer & Move to Next Question



9:13

153 B/s 81



quiz.vu.edu.pk/Q



BC200201845: TAYYABA SAEED

Time Left 59 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:07 AM, 29 June 2022

Question # 9 of 10 (Start time: 09:13:05 AM, 29 June 2022)

Total Marks:

Which one of the statement is true for somaclonal variations_____

Select the correct option



May be epigenetic



May be genetic



Dependent on the natural variation



All given

Click to Save Answer & Move to Next Question





Meristem culture is the in vitro culture of a generally shiny special dome-like structure measuring less than 0.1 mm in length and only one or two pairs of the youngest leaf primordia, most often excised

Select the correct option



Root apex



None of the given



Leaf apex



Shoot apex

Click to Save Answer & Move to Next Question



9:12

22 K/s 81



quiz.vu.edu.pk/Q



BC200201845: TAYYABA SAEED

Time Left 88 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:07 AM, 29 June 2022

Question # 7 of 10 (Start time: 09:12:55 AM, 29 June 2022)

Total Marks:

Undifferentiated cells are also called as _____.

Select the correct option

☒ Meristematic cells

☐ Haploid cells

Click to Save Answer & Move to Next Question



9:12

29
8/s

quiz.vu.edu.pk/Q



BC200201845: TAYYABA SAEED

Time Left 44
sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:07 AM, 29 June 2022

Question # 6 of 10 (Start time: 09:12:01 AM, 29 June 2022)

Total Marks:

Protoplasts of different species can be fused to generate a hybrid and this process is referred to as somatic hybridization (or protoplast fusion).

Select the correct option

☒ True☐ False

Click to Save Answer & Move to Next Question



Question # 4 of 10 (Start time: 09:10:04 AM, 29 June 2022)

Total Marks: 1

Anything in the genome that is variable and can be used to compare individuals is called as

_____.

Select the correct option

- ☐ None of the above given
- ☐ Molecular marker
- ☒ Genetic marker
- ☐ Both of the above given

[Click to Save Answer & Move to Next Question](#)

Question # 3 of 10 (Start time: 09:07:54 AM, 29 June 2022)

Total Marks: 1

Octopine strains of Ti plasmid have two T-DNA regions referred to as TL and TR that are respectively _____ in length.

Select the correct option

- | | |
|----------------------------------|----------------|
| ☐ | 10 kb and 5 kb |
| ☒ | 10 kb and 7 kb |
| ☐ | 14 kb and 7 kb |
| ☐ | 14 kb and 5 kb |

Not sure

[Click to Save Answer & Move to Next Question](#)

9:07

625 B/s 81



quiz.vu.edu.pk/Q



BC200201845: TAYYABA SAEED

Time Left 75 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:07 AM, 29 June 2022

Question # 2 of 10 (Start time: 09:07:27 AM, 29 June 2022)

Total Marks:

Protoplasts are naked plant cells without the

_____.

Select the correct option



Mitochondria



cell membrane



cell wall



lysosomes

Click to Save Answer & Move to Next Question



Which property belongs to morphological markers?

Select the correct option



All given



Exhibit pleiotropy



Exhibit deleterious effects



Exhibit dominance

Click to Save Answer & Move to Next Question

Screenshot has been saved to/Pictures/Screenshot

9:05

434 B/s 82



quiz.vu.edu.pk/Q



BC190408361: RUBAB FATIMA

Time Left 68 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:01 AM, 29 June 2022

Question # 10 of 10 (Start time: 09:05:17 AM, 29 June 2022)

Total Marks:

These soma clonal variants, which are dependent on the natural variation in a population of cells, may be genetic or epigenetic, and are usually observed in the _____.

Select the correct option



Regenerated plantlets



Generated plantlets

[Click to Save Answer & Move to Next Question](#)

9:05

77
8/s

quiz.vu.edu.pk/Q



BC190408361: RUBAB FATIMA

Time Left 47
sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:01 AM, 29 June 2022

Question # 9 of 10 (Start time: 09:03:57 AM, 29 June 2022)

Total Marks:

Causes of Somaclonal Variations are _____.

Select the correct option



Physiological Cause



Biochemical Cause



All of the given



Genetic Cause

Click to Save Answer & Move to Next Question





Synthetic seed is referred to as encapsulated _____ which functionally mimic seeds and can develop into seedling under suitable conditions

Select the correct option



Somatic Embryos



Seedlings



Seed coat



Unripe fruit

Click to Save Answer & Move to Next Question



9:03

270 B/s 82



quiz.vu.edu.pk/Q



BC190408361: RUBAB FATIMA

Time Left 83 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:01 AM, 29 June 2022

Question # 7 of 10 (Start time: 09:03:20 AM, 29 June 2022)

Total Marks:

Selection of the correct _____ of plant species (by screening) is necessary to improve micro propagation.

Select the correct option

☒ Genotype☐ Phenotype[Click to Save Answer & Move to Next Question](#)

9:03

7 K/S 82



quiz.vu.edu.pk/Q



BC190408361: RUBAB FATIMA

Time Left 86 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:01 AM, 29 June 2022

Question # 6 of 10 (Start time: 09:03:11 AM, 29 June 2022)

Total Marks:

Tobacco resistant to _____.

Select the correct option



Picloram



Glyphosate



Sulfonylurea



All of the given

Click to Save Answer & Move to Next Question

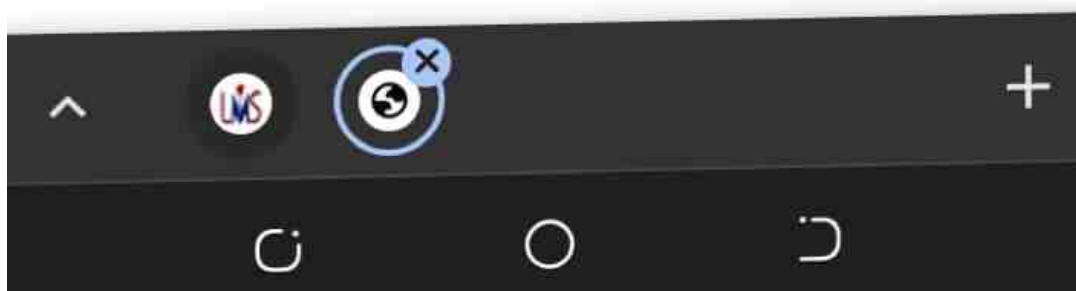


Which property belongs to morphological markers?

Select the correct option

- ☒ All given
- ☐ Exhibit deleterious effects
- ☐ Exhibit dominance
- ☐ Exhibit pleiotropy

Click to Save Answer & Move to Next Question





BC190408361: RUBAB FATIMA

Time Left 77 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:01 AM, 29 June 2022

Question # 4 of 10 (Start time: 09:02:36 AM, 29 June 2022)

Total Marks:

Meristem culture is the in vitro culture of a generally shiny special dome-like structure measuring less than 0.1 mm in length and only one or two pairs of the youngest leaf primordia, most often excised

Select the correct option



None of the given



Shoot apex



Root apex



Leaf apex

Click to Save Answer & Move to Next Question



9:02

   2 K/S  82

quiz.vu.edu.pk/G



1



BC190408361: RUBAB FATIMA

Time Left 77 sec(s)

BT403: Quiz no: 1

Quiz Start Time: 09:01 AM, 29 June 2022

Question # 3 of 10 (Start time: 09:02:13 AM, 29 June 2022)

Total Marks:

The culture of _____ can be effectively used to eradicate pathogens from planting material and thereby dramatically improve the yield of established cultivars.

Select the correct option

☒ Single cells and meristems☐ Meristems☐ Embryos☐ Single cells[Click to Save Answer & Move to Next Question](#)

The young sporophyte of a seed plant usually comprising a rudimentary plant with _____, _____ , and _____.

Select the correct option

- | | |
|----------------------------------|------------------|
| ☒ | All of the given |
| ☐ | Radicle |
| ☐ | Plumule |
| ☐ | Cotyledons |

Click to Save Answer & Move to Next Question

9:01

🔇 📶 📶 📶 1 K/S 82



quiz.vu.edu.pk/Q



BC190408361: RUBAB FATIMA

Time Left 74 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 09:01 AM, 29 June 2022

Question # 1 of 10 (Start time: 09:01:17 AM, 29 June 2022)

Total Marks:

Undifferentiated cells are also called as _____.

Select the correct option



Haploid cells



Meristematic cells

Click to Save Answer & Move to Next Question



The genetic variations found in the in vitro cultured cells are collectively referred to as

Select the correct option

- | | |
|----------------------------------|-----------------------|
| ☒ | somaclonal variations |
| ☐ | micropropagation |
| ☐ | Diploid |
| ☐ | Haploid |

Click to Save Answer & Move to Next Question

Which property belongs to morphological markers?

Select the correct option

☐

Exhibit pleiotropy

☒

All given

☐

Exhibit deleterious effects

☐

Exhibit dominance

Click to Save Answer & Move to Next Question



The markers that can identify the genomic diversity of species to demonstrate the speciation and evolution, and associate genomic variations with phenotypic traits are called as_____ .

Select the correct option



SSRs



AFLPs



SNPs



RFLPs

Click to Save Answer & Move to Next Question



8:58

27 K/s 82



quiz.vu.edu.pk/Q



BC190408358: SAMRA ARIF

Time Left 86 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:55 AM, 29 June 2022

Question # 5 of 10 (Start time: 08:58:42 AM, 29 June 2022)

Total Marks:

Tobacco resistant to _____.

Select the correct option



Glyphosate



Sulfonylurea



All of the given



Picloram

Click to Save Answer & Move to Next Question



_____ refers to the state of being able to take up exogenous DNA from the environment.

Select the correct option



Biolistics



microinjection



transformation



competence

Click to Save Answer & Move to Next Question

Regenerated plants with altered chromosomal changes often show changes _____.

Select the correct option

☐

Sexual fertility

☐

Leaf shape and color

☒

All of the given

☐

Growth rate and habit

Click to Save Answer & Move to Next Question

Which of the following is a tumor inducing Bacteria?

Select the correct option

- ☐ Agrobacterium rhizogene
- ☐ E.coli
- ☒ Agrobacterium tumefaciens
- ☐ Agrobacterium subtilis

Click to Save Answer & Move to Next Question

Detectable sequence of protein or DNA that is closely linked to a _____ is called genetic marker.

Not sure

Select the correct option

☒	gene locus
☐	Microsatellites
☐	SNP
☐	Allozyme



Click to Save Answer & Move to Next Question

8:54

19 K/s 85



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BC200204161: MARYAM

Time Left 88 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:49 AM, 29 June 2022

Question # 10 of 10 (Start time: 08:54:31 AM, 29 June 2022)

Total Marks:

Callus is formed from pollen grains on a medium supplemented with _____extract or casein hydrolysate.

Select the correct option



Fungal



Yeast

Click to Save Answer & Move to Next Question



8:54

18 K/s 85



quiz.vu.edu.pk/Q



BC200204161: MARYAM

Time Left 86 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:49 AM, 29 June 2022

Question # 9 of 10 (Start time: 08:54:25 AM, 29 June 2022)

Total Marks:

AFLP Markers involves cleavage of DNA with ____ different enzymes.

Select the correct option



four



one



two



three

Click to Save Answer & Move to Next Question



Question # 8 of 10 (Start time: 08:54:16 AM, 29 June 2022)

Total Marks: 1

_____ process is more important for transgenic plant production.

Select the correct option



Multiplication



Indirect organogenesis



Regeneration



Direct organogenesis

[Click to Save Answer & Move to Next Question](#)

8:54

🔴 📶 📶 📶 1 K/S 🔋 83



quiz.vu.edu.pk/Q



BC200204161: MARYAM

Time Left 78 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:49 AM, 29 June 2022

Question # 7 of 10 (Start time: 08:53:59 AM, 29 June 2022)

Total Marks:

The majority of micropropagation culture necessitates optimum temperature around _____

Select the correct option

- | | |
|----------------------------------|-------|
| ☐ | 35 °C |
| ☐ | 23 °C |
| ☐ | 45 °C |
| ☒ | 25 °C |

Click to Save Answer & Move to Next Question

Specific crosses could result in a new generation that performed better in the field than either of the parents are possible due to _____

Select the correct option

☐	Self pollination
☐	All given
☒	Cross pollination
☐	Hybrid formation

Not sure

Click to Save Answer & Move to Next Question

8:52

170
8/s



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BC200204161: MARYAM

Time Left 82
sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:49 AM, 29 June 2022

Question # 5 of 10 (Start time: 08:52:21 AM, 29 June 2022)

Total Marks:

Isolation of mutants from protoplast cultures is

_____.

Select the correct option



Difficult



Impossible



Unpredictable



Easy

Click to Save Answer & Move to Next Question



8:52



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BC200204161: MARYAM

Time Left 21 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:49 AM, 29 June 2022

Question # 4 of 10 (Start time: 08:50:14 AM, 29 June 2022)

Total Marks:

Which one is not the Advantages of somatic embryogenesis _____.

Select the correct option



Germplasm conservation



Artificial seed production



Lower propagation rate



Higher propagation rate

not sure



Click to Save Answer & Move to Next Question



8:50

🔇 📶 3 K/S 85



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BC200204161: MARYAM

Time Left 77 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:49 AM, 29 June 2022

Question # 3 of 10 (Start time: 08:49:52 AM, 29 June 2022)

Total Marks:

Induction of Mutagenesis can overcome the masking effect of presence of _____ gene.

Select the correct option



Recessive



Dominant

Click to Save Answer & Move to Next Question



8:49

324 B/s 85



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BC200204161: MARYAM

Time Left 84 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:49 AM, 29 June 2022

Question # 2 of 10 (Start time: 08:49:42 AM, 29 June 2022)

Total Marks:

Plant breeding can be conveniently separated into _____ activities: manipulating genetic variability and plant evaluation.

Select the correct option

☒ Two☐ Three

Click to Save Answer & Move to Next Question



8:49

🔇 📶 3 K/S 85



quiz.vu.edu.pk/Q



1



BC200204161: MARYAM

Time Left 87 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:49 AM, 29 June 2022

Question # 1 of 10 (Start time: 08:49:36 AM, 29 June 2022)

Total Marks:

Cytoplasmic hybrid is the formation of _____.

Select the correct option



Cybrid or Cytoplasm



Dihybrid



Chloroplast



Hybrid

Click to Save Answer & Move to Next Question



As a result of _____ , several novel variants of existing crops have been developed, e.g., pure thorn-less blackberries.

Select the correct option



Embryogenesis



Organogenesis



Embryo Rescue



Soma clonal variations

Click to Save Answer & Move to Next Question

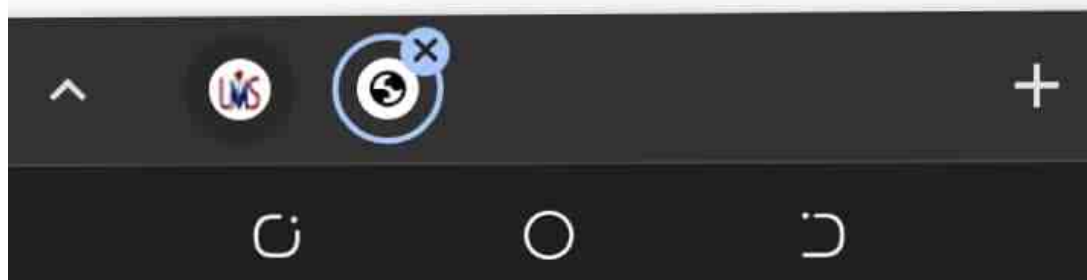
The genetic markers should be _____ and _____.

Select the correct option

- ☐ good, resistible
- ☐ polymorphic, reproducible
- ☒ polymorphic, heterozygous
- ☐ rare, reproducible



Click to Save Answer & Move to Next Question



The genetic variations found in the in vitro cultured cells are collectively referred to as _____

Select the correct option

☐

Genotypic variations

☐

Epigenetic variations

☐

Phenotypic variations

☒

Somaclonal variations

Click to Save Answer & Move to Next Question

8:39

34 B/s 84



quiz.vu.edu.pk/Qu



1



BC190413618: HIFZA SHAHID

Time Left 75 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:29 AM, 28 June 2022

Question # 10 of 10 (Start time: 08:39:01 AM, 28 June 2022)

Total Marks: 1

The ex- plants are thoroughly rinsed 4 times in sterile distilled _____ .

Select the correct option

☒ Water☐ Iso-propanol☐ Methanol☐ Ethanol

Click to Save Answer & Move to Next Question



8:38

K/s 84



quiz.vu.edu.pk/Qu



1



BC190413618: HIFZA SHAHID

Time Left 62 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:29 AM, 28 June 2022

Question # 9 of 10 (Start time: 08:38:09 AM, 28 June 2022)

Total Marks:

Callus is formed from pollen grains on a medium supplemented with _____extract or casein hydrolysate.

Select the correct option

☒ Yeast☐ Fungal[Click to Save Answer & Move to Next Question](#)

8:38

374 B/s 84



quiz.vu.edu.pk/Qu



1



BC190413618: HIFZA SHAHID

Time Left 57 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:29 AM, 28 June 2022

Question # 8 of 10 (Start time: 08:37:11 AM, 28 June 2022)

Total Marks:

Haploid plants have the _____ number of chromosomes.

Select the correct option



Two-half of the normal



One-half of the normal

Click to Save Answer & Move to Next Question



Specific crosses could result in a new generation that performed better in the field than either of the parents are possible due to _____

Select the correct option



All given



Cross pollination



Self pollination



Hybrid formation



Click to Save Answer & Move to Next Question

8:35

2 K/s 84



quiz.vu.edu.pk/Qu



1



BC190413618: HIFZA SHAHID

Time Left 71 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:29 AM, 28 June 2022

Question # 6 of 10 (Start time: 08:34:46 AM, 28 June 2022)

Total Marks:

Protoplasts of different species can be fused to generate a hybrid and this process is referred to as _____ hybridization (or protoplast fusion).

Select the correct option



Cell to nucleus



all of given



Somatic



Nuclear

Click to Save Answer & Move to Next Question



8:34

🔔 📶 📶 📶 2 K/s 84



quiz.vu.edu.pk/Qu



1



BC190413618: HIFZA SHAHID

Time Left 57 sec(s)

BT403-Quiz no. 1

Quiz Start Time: 08:29 AM, 28 June 2022

Question # 5 of 10 (Start time: 08:33:58 AM, 28 June 2022)

Total Marks:

_____ process is more important for transgenic plant production.

Select the correct option



Direct organogenesis



Indirect organogenesis



Multiplication



Regeneration

Click to Save Answer & Move to Next Question



8:33

3 K/s 84



quiz.vu.edu.pk/Qu



BC190413618: HIFZA SHAHID

Time Left 12:00
sec(s)

BT463: Quiz no. 1

Quiz Start Time: 08:29 AM, 28 June 2022

Question # 4 of 10 (Start time: 08:31:37 AM, 28 June 2022)

Total Marks: 1

AFLP Markers involves cleavage of DNA with ____ different enzymes

Select the correct option

3



2



4



1



Click to Save Answer & Move to Next Question



Meristem culture is the in vitro culture of a generally shiny special dome-like structure measuring less than 0.1 mm in length and only one or two pairs of the youngest leaf primordia, most often excised

Select the correct option

- | | |
|----------------------------------|-------------------|
| ☒ | Shoot apex |
| ☐ | Leaf apex |
| ☐ | Root apex |
| ☐ | None of the given |

[Click to Save Answer & Move to Next Question](#)

8:30

🔔 📶 📶 📶 1 K/s 85



quiz.vu.edu.pk/Qu



BC190413618: HIFZA SHAHID

Time Left 60 sec (s)

BT403:Quiz no. 1

Quiz Start Time: 08:29 AM, 28 June 2022

Question # 2 of 10 (Start time: 08:29:39 AM, 28 June 2022)

Total Marks:

Which of the following is not a method of gene delivery in Plants?

not sure

Select the correct option

- | | |
|----------------------------------|---------------------------------------|
| ☒ | Conjugation |
| ☐ | Agrobacterium mediated transformation |
| ☐ | Electroporation |
| ☐ | Biolistic gene gun method |

Click to Save Answer & Move to Next Question

8:29

🔔 📶 1 K/s 85



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1



BC190413618: HIFZA SHAHID

Time Left 76 sec(s)

BT403:Quiz no. 1

Quiz Start Time: 08:29 AM, 28 June 2022

Question # 1 of 10 (Start time: 08:29:14 AM, 28 June 2022)

Total Marks:

Cytoplasmic hybrid is the formation of _____.

Select the correct option



Cybrid or Cytoplast



Dihybrid



Chloroplast



Hybrid

Click to Save Answer & Move to Next Question

8:52

1 K/s 82



quiz.vu.edu.pk/Qu



1



BC190202540: MUHAMMAD MAHID

Time Left 75 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:45 AM, 28 June 2022

Question # 7 of 10 (Start time: 08:51:51 AM, 28 June 2022)

Total Marks:

Initiation from callus is done by treating with enzymes as Pectinase and _____.

Select the correct option



Cellulase



Amylase



Lygase



Fructose

Click to Save Answer & Move to Next Question



The genetic variations found in the in vitro cultured cells are collectively referred to as

Select the correct option

- ☐ micropropagation
- ☐ Diploid
- ☐ Haploid
- ☒ somaclonal variations



Click to Save Answer & Move to Next Question

Which of the following is a tumor inducing Bacteria?

Select the correct option

☐

Agrobacterium subtilis

☐

E.coli

☒

Agrobacterium tumefaciens

☐

Agrobacterium rhizogene

Click to Save Answer & Move to Next Question

The most successful example of anther/spore culture is _____.

Select the correct option

- | | |
|----------------------------------|-------------|
| ☐ | Potato |
| ☒ | Tobacco |
| ☐ | Tomato |
| ☐ | Cauliflower |

[Click to Save Answer & Move to Next Question](#)

8:48

12 K/s 83



quiz.vu.edu.pk/Qu



1



BC190202540: MUHAMMAD MAHID

Time Left 88 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:45 AM, 28 June 2022

Question # 3 of 10 (Start time: 08:48:35 AM, 28 June 2022)

Total Marks:

Haploid plants have the _____ number of chromosomes.

Select the correct option



One-half of the normal



Two-half of the normal

Click to Save Answer & Move to Next Question



8:48

1 K/s 83



quiz.vu.edu.pk/Qu



BC190202540: MUHAMMAD MAHID

Time Left 63 sec(s)

BT403: Quiz no. 1

Quiz Start Time: 08:45 AM, 28 June 2022

Question # 2 of 10 (Start time: 08:47:42 AM, 28 June 2022)

Total Marks:

Pre zygotic barriers to crossing can be over come by _____ process

Select the correct option



Protoplast fusion



In-vitro fertilization



Embryo culture



All given

Click to Save Answer & Move to Next Question



Question # 1 of 10 (Start time: 08:45:57 AM, 28 June 2022)

Total Marks:

_____ is an example of genetic marker.

Select the correct option



PCR



Auxins



Gel electrophoresis



Single nucleotide polymorphism



Click to Save Answer & Move to Next Question



Question # 10 of 10 (Start time: 05:19:21 PM, 28 June 2022)

The discharge of sperm within the female gametophyte triggers _____, and the two sperm nuclei must then fu

Select the correct option



Syngamy



Autogamy



Question # 9 of 10 (Start time: 05:17:45 PM, 28 June 2022)

The explants of the plant must produce phenolic compounds for activation of virulence genes in.

Select the correct option

☐	bacteria
☐	yeast
☐	virus
☐	agrobacterium





Question # 8 of 10 (Start time: 05:16:54 PM, 28 June 2022)

In transformation the _____ is directly entered to the cell.

Select the correct option

- | | |
|-----------------------|------------------|
| ☐ | DNA |
| ☐ | cDNA |
| ☐ | RNA |
| ☐ | All of the given |



Selection of the correct _____ of plant species (by screening) is necessary to improve micro propagation.

Select the correct option

☐	Phenotype
☒	Genotype



Controlled pollination of plants led to the realization that specific crosses could result in a new generation that performed _____ in parents.

Select the correct option

☐	Normal
☐	Good
☒	Better
☐	None

Next question



Question # 5 of 10 (Start time: 05:13:53 PM, 28 June 2022)

Callus is formed from pollen grains on a medium supplemented with _____ extract or casein hydrolysate.

Select the correct option

☐	Yeast
☐	Fungal



Some seeds require mycorrhizal _____ association for germination e.g. orchids.

Select the correct option

☐	Bacteria
☐	Viruses
☒	Fungi
☐	Algae



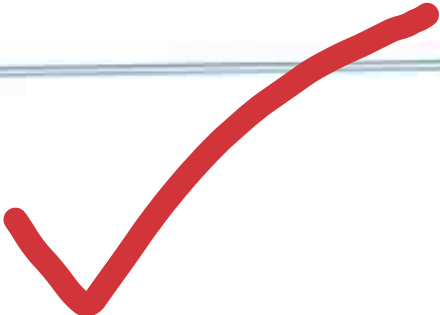


Question # 2 of 10 (Start time: 05:10:23 PM, 28 June 2022)

In-situ methods alone are _____ for saving endangered species.

Select the correct option

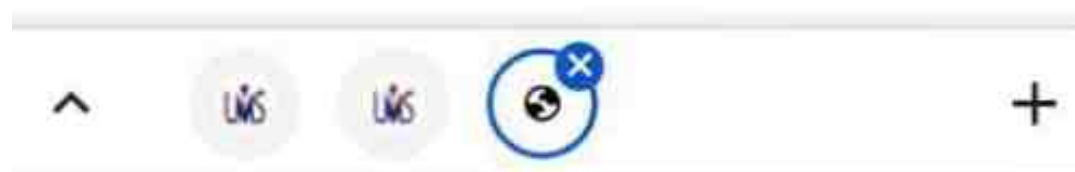
☐	Sufficient
☐	insufficient



There are ____ phases of regeneration

Select the correct option

- ☒ Four
- ☐ Three
- ☐ Five
- ☐ Two



____ and ____ are utilized by *A. tumefaciens* as sources of carbon and energy.

Select the correct option

- ☐ Ti plasmid, T-DNA
- ☒ opines, agropines
- ☐ amino acids, sugar derivatives
- ☐ auxin, cytokinin

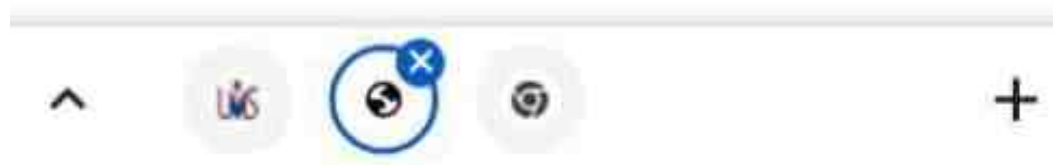


About _____ of bacterial species are capable of naturally taking up DNA under laboratory conditions

Select the correct option:

☐	0.1%
☐	11%
☒	1%
☐	1.5%

Click to View Answer / & Move to Next Question

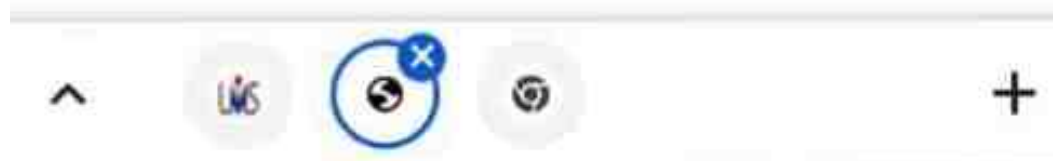


_____ seeds are seeds which do not survive drying and/or freezing during ex-situ conservation

Select the correct option.

- ☒ Non-Orthodox
- ☐ Orthodox
- ☐ Hydrant
- ☐ Intermediate

Submit Answer



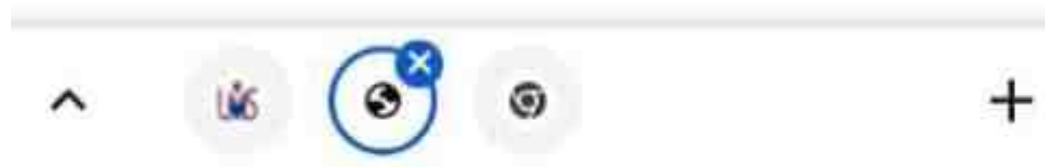
Controlled pollination of plants led to the realization that specific crosses could result in a new generation that performed _____ in the field than either of the parents.

Select the correct option :

- ☐ None
- ☐ Normal
- ☒ Better
- ☐ Good



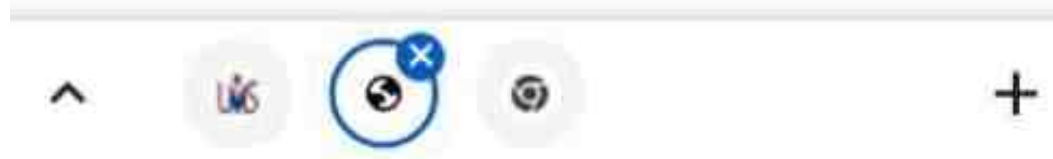
You have selected 10.00 out of 10.00 marks



Meristem culture is the in vitro culture of a generally shiny special dome-like structure measuring less than 0.1 mm in length and only one or two pairs of the youngest leaf primordia, most often excised from the _____.

Select the correct option

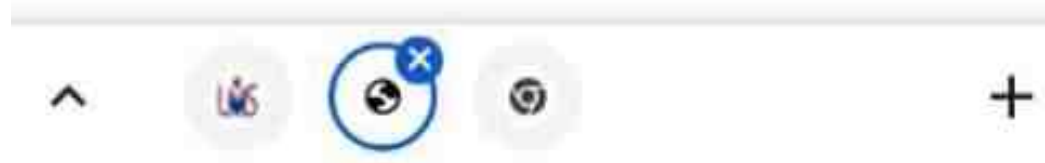
☐	Leaf apex
☐	Shoot apex
☐	Root apex
☐	None of the given



About _____ of bacterial species are capable of naturally taking up DNA under laboratory conditions

Select the correct option:

- ☐ 0.1%
- ☐ 11%
- ☒ 1%
- ☐ 1.5%





BT403:Quiz no. 1

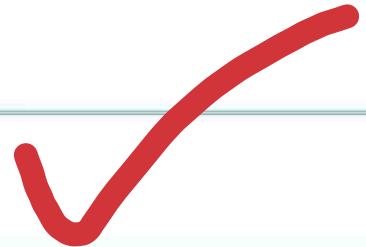
Quiz Start Time: 04:43 PM, 28 Ju

Question # 1 of 10 (Start time: 04:43:06 PM, 28 June 2022)

Total

Regeneration is possible because plant cells can be made _____ using hormones

Select the correct option

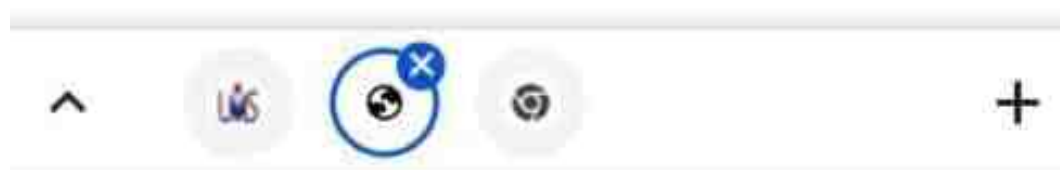
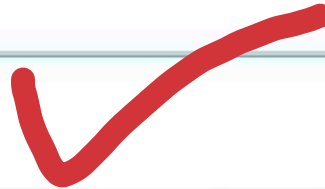
- | | |
|-----------------------|-------------|
| ☐ | All given |
| ☐ | Regenerated |
| ☐ | Cultured |
| ☐ | Totipotent |
- 

[Click to View Answers & Move to Next Question](#)

With older cultures the Embryogenesis ability _____ and ultimately it is completely lost.

Select the correct option

☐	Stops
☐	Decreases
☐	Increases
☐	None



Selection of the correct _____ of plant species (by screening) is necessary to improve micro propagation.

Select the correct option

- ☒ Genotype
- ☐ Phenotype

1/20/2022 4:58:00 PM (GMT+05:30) [Print]

Question # 1 of 10 (Start time: 04:58:03 PM, 28 June 2022)

Embryo rescue is one of the earliest and successful forms of in-vitro culture techniques that is used to assist in the development of plant that might not survive to become viable plants

Select the correct option

- | | |
|----------------------------------|----------|
| ☐ | Eggs |
| ☐ | Zygote |
| ☒ | Embryos |
| ☐ | Plasmids |

← → ↻ ■ quiz.vu.edu.pk/QuizQuestion.aspx?ser=0fb9b1af-7d94-49d2-aa8f-13393a4004bd

BC190408835: MANAB ASHRAF

BT403:Quiz no. 1

Question # 4 of 10 (Start time: 05:00:13 PM, 29 June 2022)

IEDC stands for _____

Select the correct option

☐	Infused eggs determined cells
☒	Induced embryonic determined cells



BC190408635: MANAB ASHRAF

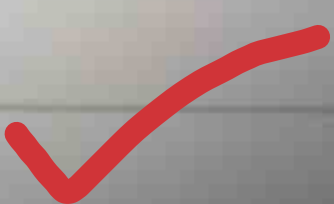
BT403: Quiz no. 1

Quiz Start Time

Question # 3 of 10 (Start time: 04/08/24 19:17, 28 June 2022)

Incubate the nematode shock to culture under 16hrs light at _____ °C

Select the correct option

- | | |
|----------------------------------|----|
| ☐ | 15 |
| ☐ | 25 |
| ☐ | 18 |
| ☒ | 20 |
- 

Question # 2 of 10 (Start time: 04:58:55 PM, 28 June 2022)

The pure homozygous line is generally obtained through selfing for _____ generations

Select the correct option

- | | |
|----------------------------------|-----|
| ☐ | 5-5 |
| ☐ | 4-5 |
| ☐ | 3-6 |
| ☒ | 6-7 |
- 

BC130408835: MANAB ASHRAF

BT403: Quiz no. 1

Question # 5 of 10 (Start time: 05:00:54 PM, 28 June 2022)

Plant breeding can be conveniently separated into _____ activities: manipulating genetic variability and plant evaluation.

Select the correct option

Two



Three



BC190408635: MANAB ASHRAF

BT403: Quiz no. 1

Question # 6 of 10 (Start time: 05:01:33 PM, 28 June 2022)

synthetic seeds are also called _____

Select the correct option

- ☐ Artificial cells
- ☐ Encapsulated seeds
- ☐ Artificial seeds
- ☐ Encapsulated Embryo



BC190408635: MANAB ASHRAF

ET403 Quiz no. 1

Question # 7 of 10 (Start time: 05:02:53 PM, 28 June 2022)

The most successful example of antherisporic culture is _____

Select the correct option



Tomato



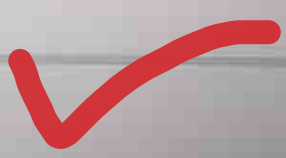
Cauliflower



Tobacco



Spinach



BC190408635: MANAB ASHRAF

BT403 Quiz no. 1

Question # 10 of 10 (Shift time: 05:08:48 PM, 28 June 2022)

Tobacco resistant to _____

Select the correct option

- | | |
|-----------------------|------------------|
| ☐ | Pectin |
| ☐ | Sulfonamides |
| ☐ | All of the given |
| ☐ | Carbohydrate |
- 

Question # 9 of 10 (Start time: 05:05:22 PM, 28 June 2022)

Which property belongs to morphological markers?

Select the correct option

- ☐ Exhibit deleterious effects
- ☐ Exhibit dominance
- ☐ Exhibit pleiotropy
- ☐ All given

✓
All

BC190408635: MANAB ASHRAF

BT403: Quiz no. 1

Question # 8 of 10 (Start time: 05:04:11 PM, 28 June 2022)

Activated charcoal may adsorb the _____ substances present in the medium.

Select the correct option

- | | |
|----------------------------------|------------|
| ☐ | Asain |
| ☐ | Cytokine |
| ☐ | Simulstary |
| ☒ | Antibiotic |





103:Quiz no. 1

Quiz Start Time: 04:43 PM, 28 June

Question # 9 of 10 (Start time: 04:53:01 PM, 28 June 2022)

Total Ma

The culture of _____ can be effectively used to eradicate pathogens from planting material and thereby dramatically improve the yield of established cultivars.

Select the correct option

- ☒ Single cells and meristems
- ☐ Single cells
- ☐ Embryos
- ☐ Meristems

(Clear all Good Answers & Move to Next Question)

4:49 4G 64%

quiz.vu.edu.pk/QuizQuesti

BT403:Quiz no. 1 Quiz Start Time: 04:43 PM, 28 Jun

Question # 7 of 10 (Start time: 04:50:38 PM, 28 June 2022) Total

Which one of the statement is true for somaclonal variations_____

Select the correct option

☐	Dependent on the natural variation
☐	May be genetic
☐	May be epigenetic
☐	All given

Correct! Save / Answer & Move to Next Question

4:48 4G 64%

quiz.vu.edu.pk/QuizQuesti

2

403: Quiz No. 1

Quiz Start Time: 04:43 PM

Question # 6 of 10 (Start time: 04:49:14 PM, 28 June 2022)

Markers with visual identification are called?

Select the correct option

☐	Single Nucleotide Polymorphism
☐	Molecular Markers
☒	Morphological Markers
☐	Plant Markers

Click to View Answer & Move to Next Q

Not sure





BT403:Quiz no. 1

Quiz Start Time: 04:43 PM, 28 Jun

Question # 4 of 10 (Start time: 04:46:41 PM, 28 June 2022)

Total h

The genetic variations found in the in vitro cultured cells are collectively referred to as _____

Select the correct option

- ☐ Genotypic variations
- ☐ Phenotypic variations
- ☐ Epigenetic variations
- ☐ Somaclonal variations



Click to Show Answer & Move to Next Question



Usually anthers from _____ plants are more suitable for culture.

Select the correct option

Older



Younger



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T403: Quiz no. 1

Quiz Start Time: 04:43 PM, 28 Jun

Question # 8 of 10 (Start time: 04:52:05 PM, 28 June 2022)

Total h

Activated charcoal may _____ the inhibitory substances present in the medium.

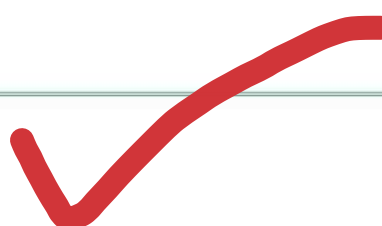
Select the correct option



Adsorb



Absorb

[Click to view Answer & Move to Next Question](#)



BT403:Quiz no. 1

Quiz Start Time: 04:43 PM, 28 Jun

Question # 5 of 10 (Start time: 04:48:15 PM, 28 June 2022)

Total h

In transformation the _____ is directly entered to the cell.

Select the correct option

- | | |
|----------------------------------|------------------|
| ☐ | All of the given |
| ☐ | RNA |
| ☒ | DNA |
| ☐ | cDNA |

12/06/2022 04:48:15 PM



Question # 2 of 10 (Start time: 04:44:14 PM, 28 June 2022)

Total

Multiple forms of the same enzyme coded by the different genes is called _____

Select the correct option

- | | |
|-----------------------|--------------|
| ☐ | Apoenzyme |
| ☐ | All of these |
| ☐ | Holoenzyme |
| ☐ | Isozyme |



Go Back to Quiz & Review & Check Your Quiz

Initiation from callus is done by treating with enzymes as Pectinase and _____.

Select the correct option :

- ☐ Amylase
- ☐ Fructose
- ☐ Lygase
- ☒ Cellulase

Go to question 10:42:27 AM, 21 June 2022



Embryoid is formed by centrifugation of the anthers at 3–5°C for approximately ____ minutes.

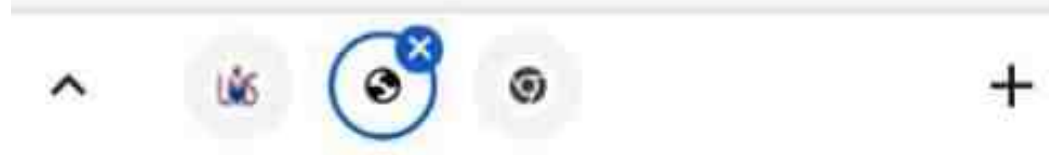
Select the correct option:

☒ 30

☐ 60

☐ 50

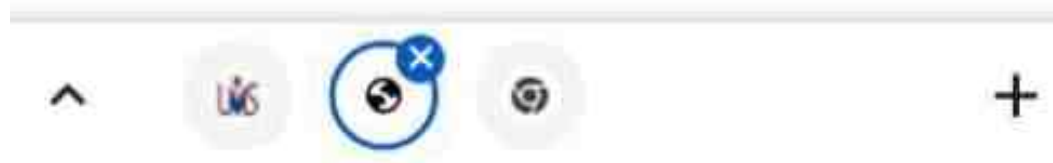
☐ 40



The most successful example of anther/spore culture is

Select the correct option

☐	Cauliflower
☐	Tomato
☐	Potato
☐	Tobacco

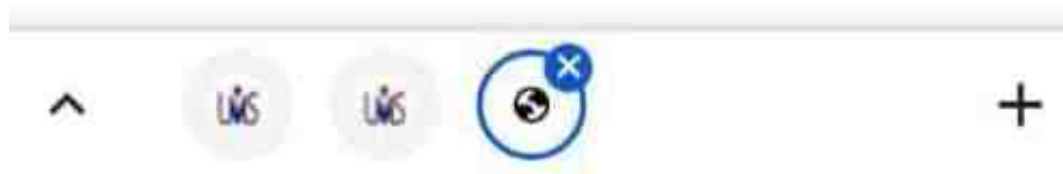


The ex- plants are thoroughly rinsed 4 times in sterile distilled _____ .

Select the correct option

- ☐ Methanol
- ☐ Iso-propanol
- ☐ Ethanol
- ☒ Water

Submit Answer



Incubate the meristem/shoot tip culture under 16hrs light at _____ °C.

Select the correct option

☐	35
☒	25
☐	56
☐	10

Submit your answer



Isolation of mutants from protoplast cultures is _____.

Select the correct option:

- ☐ Difficult
- ☐ Impossible
- ☒ Easy
- ☐ Unpredictable



Go to question 10 to see the correct answer



synthetic seeds possess which of the following characteristics_____

Select the correct option:

☐	Maintains genetic uniformity of plants
☐	Lower cost per plantlet
☐	All given
☐	High volume



The markers that can identify the genomic diversity of species to demonstrate the speciation and evolution, and associate genomic variations with phenotypic traits are called as_____.

Select the correct option.

- ☐ AFLPs
- ☐ SSRs
- ☒ SNPs
- ☐ RFLPs



ANSWER / HIDE



_____ process is more important for transgenic plant production.

Select the correct option.

- ☐ Regeneration
- ☐ Direct organogenesis
- ☐ Multiplication
- ☒ Indirect organogenesis



The first transgenic mouse being created by injecting a gene for a rat growth hormone into a mouse embryo in _____ year

Select the correct option:

☐ 1998

☐ 1988

☒ 1982

☐ 1992



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