

# National Testing Agency

**Question Paper Name:** Biotechnology  
**Subject Name:** Biotechnology  
**Creation Date:** 2019-03-30 20:10:06  
**Duration:** 180  
**Total Marks:** 100  
**Display Marks:** Yes

## Biotechnology

**Group Number :** 1  
**Group Id :** 90958238  
**Group Maximum Duration :** 0  
**Group Minimum Duration :** 120  
**Revisit allowed for view? :** No  
**Revisit allowed for edit? :** No  
**Break time:** 0  
**Group Marks:** 100

## Biotechnology

**Section Id :** 90958238  
**Section Number :** 1  
**Section type :** Online  
**Mandatory or Optional:** Mandatory  
**Number of Questions:** 100  
**Number of Questions to be attempted:** 100  
**Section Marks:** 100  
**Display Number Panel:** Yes  
**Group All Questions:** No

**Sub-Section Number:** 1  
**Sub-Section Id:** 90958240  
**Question Shuffling Allowed :** Yes

**Question Number : 1 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Single Line Question Option : No Option Orientation : Vertical**

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

Photobioreactors are used for the growth of which of the followings?

- A. Fungi
- B. Protozoa
- C. Bacteria
- D. Algae

**Options :**

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

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

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

Lab-scale bioreactors are sterilised by which of the followings?

- A. In-situ method
- B. Ex-situ method
- C. UV light
- D. All of the above

**Options :**

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

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

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

Function of sparger in bioreactor is which of the followings?

- A. to supply air
- B. to supply oxygen
- C. Both (a) and (b)
- D. None of the above

**Options :**

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

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

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

Bubble column reactor doesn't have in which of the followings?

- A. Sparger
- B. Air supply unit
- C. Impeller
- D. All of the above

**Options :**

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

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

Correct Marks : 1 Wrong Marks : 0

Bioreactors are used for which of the followings?

- A. Bioremediation
- B. Biofuel production
- C. Beer Production
- D. All of the above

Options :

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

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

Correct Marks : 1 Wrong Marks : 0

Lab scale bioreactors are made up of which of the followings?

- A. Stainless steel
- B. Mild Steel
- C. Borosilicate glass
- D. Glass

Options :

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

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

Correct Marks : 1 Wrong Marks : 0

Trickle bed bioreactor used in which of the followings?

- A. Treatment of wastewater
- B. Treatment of solid sludge
- C. Growth of bacteria
- D. None of the above

Options :

1. A
2. B

3. C

4. D

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

Correct Marks : 1 Wrong Marks : 0

Why aeration and agitation are required?

- A. for mixing
- B. for heat and mass transfer
- C. For reaction
- D. All of the above

Options :

1. A

2. B

3. C

4. D

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

Correct Marks : 1 Wrong Marks : 0

Function of O'ring in bioreactor is

- A. to stop gas exchange
- B. to provide sterile environment
- C. Useful in aeration
- D. All of the above

Options :

1. A

2. B

3. C

4. D

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

Correct Marks : 1 Wrong Marks : 0

Stirred Tank Reactors can grow in which of the followings?

- A. Plant cells
- B. Animal cells
- C. Insect cells
- D. Recombinant Yeast

Options :

1. A

2. B

3. C

4. D

Question Number : 11 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 colchicine?

- A. Terpenoids
- B. Flavonoids
- C. Alkaloids
- D. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Colchicine is used as an;

- A. Anti-cancer
- B. Anti-gout
- C. Anti-inflammatory
- D. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Fermentation is a ;

- A. aerobic process
- B. anaerobic process
- C. both (a) and (b)
- D. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Colchicine is produced from which of the followings?

- A. *Withaniasomnifera*
- B. *Bacopamonniari*
- C. *Gloriosasuprava*
- D. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Mechanism of colchicine derivative action is which of the followings?

- A. Stop tubulin polymerisation
- B. Starts tubulin binding
- C. Both (a) and (b)
- D. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 16 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 of the following is the full form of RSM?

- A. Rare Spot Mechanism
- B. Response Spindle Mitosis
- C. Response Surface Methodology
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Matrix used for immobilisation of which of the followings microbial cells ?

- A. Ca-alginate
- B. Silica oxide
- C. Aluminium oxide (acidic)
- D. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Colchicine structure have which of the followings?

- A. 2-ring
- B. 3-ring
- C. 4-ring
- D. 5-ring

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 19 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 gene in *E. coli* is responsible for conversion of colchicine into derivatives?

- A. CYP4A3
- B. CYP3B4
- C. CYP3A4
- D. CYP3A3

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Advantage of using Packed Bed Reactor for colchicine bioconversion is-

- A. increase surface area
- B. increase productivity
- C. increase in reaction area
- D. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Lipstatin extraction is performed in which of the followings?

- A. acetone and hexane
- B. ethanol and methanol
- C. Butyl acetate
- D. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 22 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 HPLC column used for analysis of lipstatin

- A. C-8
- B. C-6
- C. C-18
- D. C-24

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0



Pellet is a compact form of which of the followings?

- A. Hyphae
- B. Mycelium
- C. Both (a) and (b)
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Size of pellet affects lipstatin production-

- A. Yes
- B. No
- C. Never
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Lipstatin is related to which of the followings?

- A. Intracellular product
- B. Extracellular product
- C. Membrane bound
- D. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

*Streptomyces toxytricini* is which of the followings?

- A. Algae
- B. Protozoa
- C. Actinobacterium
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 27 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 oil source is giving maximum lipstatin yield?

- A. Sesame oil
- B. Mustard oil
- C. Coconut oil
- D. Rice brane oil

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Mechanism of lipstatin action is related to which of the followings:

- A. Liposomal
- B. Lipidogenic
- C. lipase inhibitor
- D. All of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 29 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 do mean by MIC?

- A. Minimum Inhibiting Cell
- B. Minimum Inhibitory Concentration
- C. Maximum Inhibitor Count
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Lipstatin is useful as

- A. Anti-HIV
- B. Anti-Hypertensive
- C. Anti-Obesity
- D. Anti-Cancer

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Biodynamic products are citified as

- A. Biocert
- B. Demeter
- C. Bioproducts
- D. Bio Demeter

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Biodynamic Technology is primarily based on lectures of

- A. Jorge King
- B. Thoreau
- C. R Seiner
- D. P Massan

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Biodynamic Calendar is based on which of the following?

- A. Sun
- B. Moon
- C. Both
- D. None

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

As per Biodynamic Calendar best constellation day for farming is?

- A. Full Moon
- B. New Moon
- C. Moon opposite Saturn
- D. Apogee & Perigee

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

As per Biodynamic Calendar best time for manure preparation is

- A. Ascending Moon
- B. Descending Moon
- C. Perigee
- D. Apogee

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 36 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 Biodynamic the fundamental manure preparation is

- A. BD 500
- B. BD 501
- C. CPP
- D. BD 502

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 37 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 Biodynamic the Silica manure preparation is

- A. BD 500
- B. BD 501
- C. CPP
- D. BD 502

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 38 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 Biodynamic manure which preparation is also known as Soil Shampoo

- A. BD 500
- B. BD 501
- C. CPP
- D. BD 502

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 39 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 Biodynamic which preparation can be spread on soil as well as leaf

- A. BD 500
- B. BD 501
- C. CPP
- D. BD 502

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 40 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 Biodynamic which preparation is used as foliar fungicide

- A. BD 500
- B. BD 501
- C. BD 507
- D. BD 502

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Conventional plastics are produced from:

- A. Microorganisms
- B. Plants
- C. Fossil fuels
- D. Dead decaying matter

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Bioplastics can be produced from:

- A. Essential Oils
- B. Microorganisms
- C. Cellulosic material
- D. All of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Plastic materials cause

- A. Air pollution
- B. Soil pollution
- C. Water pollution
- D. All of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Polyhydroxy alkenoates are:

- A. Plant- based polymeric compounds
- B. Energy storage granules found in bacterial cells
- C. Produced under low carbon conditions
- D. None of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 45 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 major disadvantages of bioplastics is:

- A. Non-biodegradability
- B. Non-sustainability
- C. High production cost
- D. All of these

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 46 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 true about bioplastics?

- A. They can be produced by microbial- and plant-based sources
- B. They can be degraded naturally with the help of microorganisms
- C. They remain in the environment for several years
- D. They are safe to be used for medicinal purpose

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 47 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 microorganisms have not been reported to produce PHA:

- A. *Alcaligenes latus*
- B. *Vibrio cholera*
- C. *Bacillus sp.*
- D. *Burkholderia cepacia*

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

PHB was first isolated and characterized by:

- A. Maurice Wilkins
- B. Louise Pasteur
- C. Maurice Lemoigne
- D. Antonie van Leeuwenhoek

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 49 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 the correct sequence of the enzymes involved in the PHB biosynthetic pathway?

- A. 3-Ketothiolase → Acetoacetyl CoA reductase → PHB synthase
- B. Acetoacetyl CoA reductase → PHB synthase → 3-Ketothiolase
- C. PHB synthase → Acetoacetyl CoA reductase → 3-Ketothiolase
- D. 3-Ketothiolase → PHB synthase → Acetoacetyl CoA reductase.

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 50 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 dye cannot be used for screening of PHB producing bacteria?

- A. Sudan Black
- B. Methylene Blue
- C. Nile Blue
- D. Nile Red

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Archaea are similar to bacteria in

- A. Morphology
- B. Metabolism
- C. Habitat
- D. None of above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Haloarchaea generally grow in

- A. High salt
- B. High temperature
- C. both a & b
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 53 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 accurate method for identification of haloarchaea?

- A. 16S rDNA
- B. Carbohydrate fermentation
- C. Lipid profile
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 54 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 size of 16S rDNA used for identification?

- A. 1500 bp
- B. 600 bp
- C. 900 bp
- D. 2000 bp

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Haloarchaea generally grow at

- A. Low pH
- B. Slight basic medium
- C. Neutral pH
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Antimicrobial proteins produced by haloarchaea are

- A. Halophiles
- B. Thermoplast
- C. Halocins
- D. Proteocins

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 57 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 method has been used for purification of halocins?

- A. Anion exchange
- B. Cation exchange
- C. Salt precipitation
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Halocins are generally

- A. Cationic
- B. Anionic
- C. Neutral
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 59 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 method was used for determination of mass of halocins?

- A. MALDI-TOF
- B. LC-MS
- C. PAGE
- D. Q-TOF

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Halocins may be applied for control of

- A. Bacteria
- B. Haloarchaea
- C. Fungi
- D. None

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 61 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 agricultural management helps in the control of water pollution?

- A. By giving an idea about the use of land management
- B. By increase the water intake
- C. By using poor soil which consumes less water
- D. By encouraging farmers to use more chemicals

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 62 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 soil resistance can increase against erosion?

- A. By maintaining the water inflow
- B. By maintaining the physical structure of soil
- C. By maintaining the environmental conditions
- D. By increasing the manure given to the plants

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Why ground water monitoring is important in control of water pollution?

- A. To provide more quantity of water
- B. To increase the chemical contains in the water
- C. To provide good quality of water
- D. To reduce the amount of water supplying from ground water

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 64 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 can we reduce the effluent volume of water to maintain its pollution level?

- A. Increase the upstream flow by low flow augmentation
- B. Decrease the upstream flow by low flow augmentation
- C. Increase the upstream flow by high flow augmentation
- D. Decrease the upstream flow by high flow augmentation

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 65 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 order to control the water pollution of pathogenic bacteria, viruses and parasites, how many categories are there?

- A. One
- B. Two
- C. Three
- D. Four

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 66 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 are aquatic weeds used in controlling water pollution?

- A. They use as a decorative substance
- B. They use as biological filters
- C. They use as chemicals
- D. They used to upgrade wastewater treatment

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 67 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 pH range of effluent after treatment?

- A. Between 4.4 and 5.5
- B. Between 4.8 and 6.1
- C. Between 6.8 and 7.8
- D. Between 7.8 and 8.3

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Why controlled use of water hyacinth is important in controlling of water pollution?

- A. To decrease the BOD level
- B. To increase the BOD level
- C. To completely vanish the BOD level
- D. To maintain the BOD level

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 69 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 did water cess act come into force?

- A. 1973
- B. 1975
- C. 1977
- D. 1980

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 70 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 a way to minimize the disposal of toxic wastes into the water?

- A. To create awareness about the pollution happening on water for people.
- B. To minimize the use of pesticides and chemicals into the agricultural fields
- C. Recycle of plastic materials
- D. Encouraging the disposals of electronic waste into the water bodies

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 71 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 value does the regression coefficient have for a perfect fit?

- A. 0.1
- B. 1
- C. 100
- D. 0

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 72 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 does the symbol P represent in a QSAR equation?

- A.  $P^H$
- B. Plasma Concentration
- C. Partition coefficient
- D. None of the above

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 73 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 symbol  $\pi$  in a QSAR equation?

- A. The electronic effect of a substituent
- B. The substituent hydrophobicity constant
- C. The hydrophobicity of the molecule
- A. The electronic effect of a substituent

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 74 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 does MR represent in a QSAR equation?

- A. Molar refractivity is a steric factor
- B. Molar refractivity is an electronic factor
- C. Molar refractivity is a hydrophobic factor
- D. Molar refractivity is a stereo-electronic factor

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 75 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 does a negative value of  $\sigma$  signify for a substituent?

- A. It is electron donating
- B. It is electron withdrawing
- C. It is neutral
- D. It is hydrophobic

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 76 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 statements is untrue when comparing 3D QSAR with conventional QSAR?

- A. 3D QSAR has a predictive quality unlike QSAR.
- B. Experimental parameters are not required by 3D QSAR, but are for QSAR.
- C. Only drugs of the same structural class should be studied by 3D QSAR or QSAR.
- D. 3D QSAR has a predictive quality unlike QSAR.

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 77 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 physicochemical properties is least commonly considered in QSAR studies?

- A. Hydrophobicity
- B. Electronic influence of substituents
- C. Dipole moment
- D. Size of substituents

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 78 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 statements is true?

- A. Hydrophobic compounds have a high value of P.
- B. Hydrophilic compounds have a high value of P.
- C. Acidic compounds have a high value of P.
- D. Basic compounds have a high value of P.

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 79 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 term is used to describe the process by which the best line is fitted through a set of data points on a graph?

- A. Linear fitting analysis by the least square's method
- B. Linear regression analysis by the least square's method
- C. Linear fitting assessment by the least square's method
- D. Linear regression assessment by the least square's method

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 80 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 is  $\pi$  measured?

- A. It is measured by calculating molecular dimensions using relevant molecular modelling software.
- B. It is measured by comparing the dissociation constants of two weak acids.
- C. It is measured by subtracting the logP value of an analogue bearing the substituent from the log P value of the parent compound lacking the substituent.
- C. It is measured by subtracting the logP value of an analogue bearing the substituent from the log P value of the parent compound lacking the substituent.
- D. It is measured by subtracting the logP value of the parent compound lacking the substituent from the log P value of an analogue bearing the substituent.

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 81 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 is fermented food

- A. Curd
- B. Salad
- C. Vegetables
- D. Chapati

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 82 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 are probiotics?

- A. Beneficial bacteria
- B. Harmful bacteria
- C. Beneficial plants
- D. All animals

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Proteins are made up of -

- A. Amino acids
- B. Glucose
- C. Lipids
- D. Metabolites

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 84 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 are lactic acid bacteria?

- A. Pseudomonas
- B. Lactobacillus
- C. Salmonella
- D. Vibrio

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 85 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 is secondary metabolite?

- A. Antibiotics
- B. Amylase
- C. Pepsin
- D. Carbohydrates

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Fermented foods are dominated by

- A. Mostly lactic acid bacteria
- B. Mixture of bacteria
- C. Pathogens
- D. Fungi

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 87 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 is antimicrobial compound produced by lactic acid bacteria?

- A. Lactic acid
- B. Propionic acid
- C. Trypsin
- D. a & b

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 88 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 bacteriocins?

- A. Antimicrobial proteins
- B. Inflammatory proteins
- C. Antimicrobial carbohydrates
- D. Immunity proteins

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 89 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 application of bacteriocins in food?

- A. Bio-preservative
- B. Therapeutics
- C. Enhances nutrition
- D. Flavouring agent

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Bacteriocins are

- A. Ribosomal-synthesized
- B. Enzymatically synthesised
- C. Both a & b
- D. Lipid compounds

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 91 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 gas produced in open dumps from the decomposition of biodegradable waste?

- A. Ethane
- B. Methane
- C. Propene
- D. Ethene

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Bacteriocins are generally

- A. Peptides
- B. Large proteins
- C. Globular proteins
- D. None

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 93 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 bacteriocins contain

- A. one bacteriocins
- B. Sequence of two bacteriocins
- C. Both a & b
- D. None

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 94 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 two bacteriocins have been used to make hybrid

- A. Nisin and Pediocin
- B. Pediocin and enterocin
- C. Pediocin and plantaricin
- D. None

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 95 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 regions of the bacteriocins have been linked?

- A. N- and C-terminal
- B. C and N-terminal
- C. C and C-terminal
- D. N- and N-terminal

Options :

- 1. A
- 2. B
- 3. C
- 4. D

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

Correct Marks : 1 Wrong Marks : 0

Host range of hybrid has been

- A. Increased
- B. Decreased
- C. Remained same
- D. Not known

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 97 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 N-terminal of bacteriocins are generally

- A. Anionic
- B. Hydrophobic
- C. Cationic
- D. Complex

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 98 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 purpose of synthesizing hybrid bacteriocins?

- A. Broad host range
- B. Stability
- C. Activity
- D. Solubility

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 99 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 two parameters were used to measure the efficacy of hybrid bacteriocins?

- A. Activity
- B. Structure
- C. ATP efflux
- D. a & c

Options :

- 1. A
- 2. B
- 3. C
- 4. D

Question Number : 100 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 membrane potential?

- A. Salt gradient
- B. ATP concentration
- C. Ion gradient
- D. None

Options :

- 1. A
- 2. B
- 3. C
- 4. D