



# BIOLOGY

# BOOKS - FULL MARKS BIOLOGY (TAMIL ENGLISH)

# LIVING WORLD

**Textbook Evaluation Questions Solved** 

1. Which one of the following statement about

virus is correct?

A. Possess their own metabolic system

B. They are falculative parasites

C. They contain DNA or RNA

D. Enzyme are present

Answer: C

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2. Identify the incorrect statement about the

Gram positive bacteria

- A. Teichoic acid absent
- B. High percentge of peptidolycan is found

in cell wall

- C. Cell wall is single layered
- D. Lipopolysaccharide is present in cell wall

Answer: A

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3. Identify the Archaebacterium

A. Acetobacter

B. Erwinia

C. Treponema

D. Methanobacterium

Answer: D

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4. The correct statement regarding Blue green

algae is

- A. lack of motile structure
- B. presence of cellulose in cell wall
- C. absence of mucilage around the thallus
- D. presence of floridean starch

Answer: A

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5. Identify the correctly matched pair

A. Actinomycete - Late blight

B. Mycoplasma - Lumpy jaw

C. Bacteria - Crown gall

D. Fungi - Sandal spike

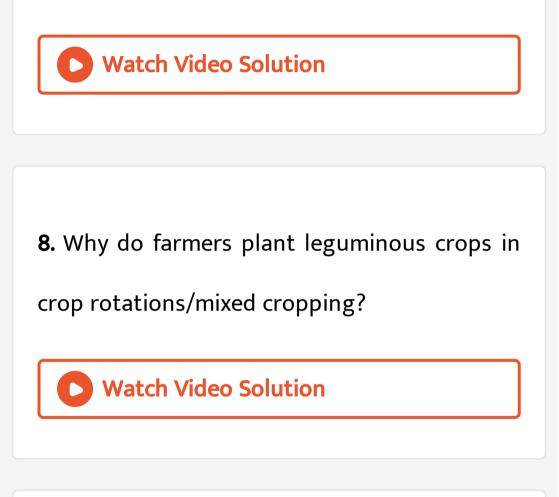
### Answer: C

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### 6. Differentiate homoiomerous and

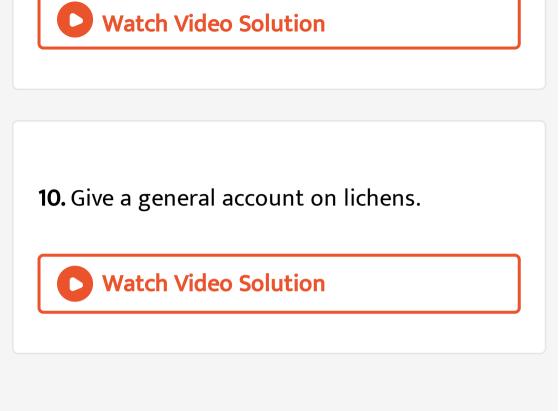
heteromerous lichens.

7. Write the distinguishing features of monera.



9. Briefly discuss on five kingdom classification.

Add a note on merits and demerits.



## Additional Questions Solved Multiple Choice Questions

**1.** Earth was formed \_\_\_\_\_ billion years ago.

B. 5.6

C. 4.6

D. 5.9

### Answer: C

•••••

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**2.** According to Mora et al., in 2011 , the number of estimated species on Earth is

A. 8.7 million

B. 9.7 million

C. 7.7 million

D. 9.7 billion

Answer: A

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3. Which of the following is NOT a prokaryote?

A. Bacteria

B. Blue green algae

C. Oedogonium

D. Nostoc

### Answer: C

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### 4. Which of the following organism undergoes

regeneration?

A. Spirogyra

B. Planaria

C. Yeast

D. Apergillus

Answer: B

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5. Vaccination for small pox was discovered

by\_\_\_\_

A. W.M. Stanley

B. Adolf Mayer

C. Robert Koch

D. Edward Jenner

Answer: D

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6. Who coined the term 'Bacteriophage' ?

A. F.W. Twort

B. d'Herelle

C. Ivanowsky

D. Robert Gallo

### **Answer: B**



### 7. The size of TMV is

A. 300 imes 20 mm

B.  $300 imes 200 \mu m$ 

C. 300 imes 20 nm

### D. $300 imes 20 { m \AA}$

### Answer: C

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### 8. One nanometer equals to ..... metres.

A. 
$$10^{-9}$$

- B.  $10^{-6}$
- $\mathsf{C.}\,10^{-5}$
- D.  $10^{\,-\,12}$

### Answer: A



**9.** Enumerate the living and non-living characters of viruses.

A. Undergoes mutation

B. Host-specific

C. Crystallized

D. Irritability





# **10.** According to David Baltimore, the viruses are classified into ...... classes.

A. 6

B. 5

C. 7

D. 8





A. ss (or) ds

B. use of RT

C. capsid

D. sense or antisense





**12.** Viruses with dsRNA is .....

A. Toga viruses

- B. Retro viruses
- C. Reo viruses
- D. Rhabho viruses

Answer: C



**13.** Which of the plant virus contains DNA as genome ?

- A. Tobacco mosaic virus
- B. Cauliflower mosaic virus
- C. Sugercane mosaic virus
- D. Cucumber mosaic virue

### Answer: B





14. Parvo viruses have .....

A. ss DNA

B. ds DNA

C. ss RNA

D. ds RNA

Answer: A

15. TMV has a molecular weight of Daltons. A.  $39 imes10^{-6}$  $\mathsf{B.39} imes 10^{-6}$  $\mathsf{C.39}\times10^9$ D.  $39 imes10^{-9}$ 

### **Answer: A**

**16.** TMV has approximately \_\_\_\_ capsomeres.

A. 3120

B. 1203

C. 2130

D. 3021

### Answer: C



17. The empty protein coat left outside after

penetration is .....

A. host

B. ghost

C. capsid

D. capsomeres

**Answer: B** 

**18.** The genome of viroid is .....

A. linear ssRNA

B. dumb-bell shaped ssRNA

C. circular ssRNA

D. linear dsRNA

Answer: C



19. Viroids were discovered by .....

A. Ivanowsky

B. Robert Gallo

C. Diener

D. d'Herelle

Answer: C

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**20.** Mad cow disease is caused by\_\_\_\_\_

A. viroids

### B. virusoids

### C. prions

D. viruses

### Answer: C

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### **21.** Match the following :

1.	Adenoviruses	a.	+ sense ssRNA -RT
2.	Retro viruses	b.	dsRNA
3.	Reo virus	c.	dsDNA
4.	Parvo virus	d.	+ sense ssDNA

B. 1- c, 2 - d, 3 - a, 4 - b

C. 1 - c, 2 - a, 3 - b, 4 - d

D. 1- d, 2 - a, 3 - b, 4 - c

### Answer: C

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**22.** Identify the correct sequence regarding lytic cycle of viruses.

(A) Penetration (B) Adsorption (C) Assembly

### (D) Synthesis

### A. BADC

### B. CABD

C. BDAC

### D. ADBC

Answer: A



23. Mycophages infect .....

A. blue green algae

B. bacteria

C. fungi

D. cyanbacteria

Answer: C

24. Rice tungro is caused by .....

A. fungi

B. bacteria

C. mycoplasma

D. viruses

Answer: D

25. Father of Botany .....

A. Aristotle

B. Theophrastus

C. Lederberg

D. Whittaker

Answer: B

26. Three kingdom calssification was proposed

by .....

A. Copeland

B. Theophrastus

C. Linnaeus

D. Haeckel

Answer: D

classification ?

A. Viruses

B. Monera

C. Protista

D. Mycoplasma

Answer: A

28. Six kingdom classification was proposed by

A. Haeckel

.....

B. Copeland

C. Woese

D. Cavalier-Smith

### Answer: D

29. Ruggerio et at., in 2015 proposed .....

kingdom classification.

A. 5

B. 6

C. 7

D. 8

Answer: C

**30.** .....is a new kingdom in seven kingdom classification.

A. Eubacteria

B. Plantae

C. Chromista

D. Archaebactria

## Answer: C

31. Actinomycetes comes under .....

kingdom.

A. fungi

B. chromista

C. monera

D. protista

Answer: C

**32.** The sourness of curd is due to .....

A. acetic acid

B. galactic acid

C. lactic acid

D. lactone

Answer: C



**33.** Founder of modern Bacteriology \_\_\_\_\_

A. Aristotle

B. Robert Koch

C. Pasteur

D. Linnaeus

Answer: B

**34.** The term bacterium was coined by .....

A. Stanley

B. Ehrenberg

C. Gram

D. Koch

Answer: B



35. Plasmids were discovered by .....

A. Ehrenberg

B. H.Bergy

C. Joshua Lederberg

D. Koch

Answer: C



**36.** Genophore is seen in .....

A. Amoeba

- B. Cyanobacteria
- C. Chlamydomonas
- D. Euglena

Answer: B



**37.** Number of domains of life are there according to Carl Woese .....

A. 3

B. 2

- C. 4
- D. 5

### Answer: A

38. Which is not a component of bacterial cell

?

A. Mesosomes

B. Glycacalyx

C. Polysomes

D. Histones

Answer: D

**39.** The most abundant polypeptide in

bacterial cell wall is .....

A. chitin

B. amylopectin

C. porin

D. pectin

Answer: C

40. Extra chromosomal element in bacterial

cells are .....

A. plasmids

B. mesosomes

C. histones

D. genophores

Answer: A

**41.** Bacteriocins are found in .....

A. genophore

B. plasmids

C. nucleiods

D. mesosomes

Answer: B

42. Colour revealed by Gram positive bacteria

after Gram staining is .....

A. red

B. indigo

C. dark violet

D. blue

Answer: C

**43.** How many number of basal body rings seen in the flagella of Gram negative bacteria ?

A. 2

B. 9

C. 4

D. 1

Answer: C



44. Capnophilic bacteria require ......for growth. A.  $O_2$ B. *CO*  $C.CO_2$ D.  $O_3$ 

#### Answer: C

45. The pigment present in green sulphur

bacteria is .....

A. bacterioviridin

B. bacteriochlorophyll

C. chlorophyll a

D. xanthophyll

Answer: B

46. The hydrongen donor of purple sulphur

bacteria is .....

A.  $H_2S$ 

B. thiosulphate

C. ethanol

D. acetic acid

**Answer: B** 

**47.** Campylobacter is a .....

A. obligate aerobe

B. obligate anaerobe

C. capnophilic

D. aerobe

Answer: C



**48.** Mycobacterium is a .....

A. parasite

B. symbiont

C. saprophyte

D. free-living

Answer: A

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**49.** Which of the most common mode of asexual reproduction in bacteria ?

A. Endospore formation

**B.** Fission

C. Budding

D. Conidia

Answer: B

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50. .....are thick resting spores.

A. Aplanospores

B. Endospores

C. Conidia

D. Zoospores

Answer: B

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**51.** In which of the following method genetic recombination does not occur ?

A. Generalised transduction

**B.** Conjugation

C. Transformation

D. Fission

Answer: D

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**52.** During conjugation in bacteria, which of the following is transferred from donor to recipient cell?

A. R factor

B. F factor

C. Ti factor

D. Ri factor

Answer: B

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53. Gtiffith used.....for his experiment.

B. rabbit

C. mice

D. monkey

Answer: C

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**54.** Transformation in bacteria was

demonstrated by

A. Lederberg

B. Zinder

C. Edward

D. Griffith

Answer: D

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**55.** Lederberg studied transduction in ......

A. Diplococcus phenumoniae

### B. Streptococcus

# C. Salmonella typhimurium

D. Escherichia coli

### Answer: C

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# 56. Bacteria used in the curing of tea is......

A. Mycococcus candisans

B. Escherichia coli

C. Acetobacter aceti

D. Srepstococcus lactis

#### Answer: A

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57. Syphilis is caused by.....

A. Mycococcus candidans

B. Treponema pallidum

C. Yersinia pestis

D. Mycobacterium leprae

Answer: B

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58. Methanobacterium is.....

A. Cyanobacteria

B. Malobacteria

C. Eubacteria

D. Archaebacteria



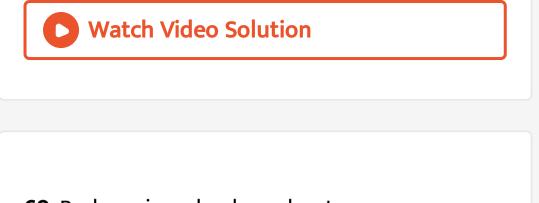


## 59. ..... is NOT a phycobiont in lichens.

A. Gloeocapsa

- B. Dermacarpa
- C. Scytonema
- D. Nostoc

Answer: B



60. Red sea is red colour due to.....

A. Dermacarpa sps.

B. Trichodesmium sps.

C. Scytonema sps.

D. Gloeocapsa spa.

Answer: B

61. Filamentous trichome is the the plant body

of.....

A. Chroomoccus

B. Gloeocapsa

C. Nostoc

D. Oscillatoria

Answer: C

**62.** Stromatolites are the colonies of cyanobacteria bind with......

A. calcium carbonate

B. calcium hydroxide

C. magnesium sulphate

D. calcium silicate.

Answer: A

**63.**\_\_\_\_\_is found in corolloid roots of Cycas.

A. Gloeocapsa

- B. Scytonema
- C. Nostoc
- D. Azolla

#### Answer: C



64. Myxophyceae refers to .....

A. Algae

B. Fungi

C. Archaebacteria

D. Cyanobacteria

Answer: D

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65. .....is used in single cell protein.

A. Spirulina

B. Azolla

C. Dermacarpa

D. Nostoc

Answer: A

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66. ..... is a pleomorphic organism .

A. Fungi

B. Mycoplasma

C. Bacteria

D. Algae

### Answer: B



# 67. Pleuropneumonia is caused by .....

A. bacteria

B. Fungi

C. mycoplasma

## D. viruses

## Answer: C

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## 68. .....is also called as Ray fungi.

- A. Basidiomycetes
- B. Ascomycetes
- C. Actinomycetes
- D. Deuteromycetes





## 69. Earthy odour of soil after rain is due to

A. Basidiomycetes

B. Ascomycetes

C. Actinomycetes

D. Deuteromycetes

#### Answer: C



**70.** Viruses that attack blue green algae are called as .....

A. Mycophages

B. Phycophages

C. Cyanophage

D. Bacteriophages





71. Cell membrane of Archaebacteria has .....

- A. glycine and isopropyl ethers
- B. glycerol and isobutyl ethers
- C. glycerol and isopropyl ethers
- D. cellulose and isobutyl ethers

Answer: C



72. Which is a true bacteria ?

A. Halobacterium

B. Thermoplasma

C. Methanobacterium

D. Azotobacter

Answer: D

**73.** Study of fungus is called as .....

A. phycology

B. mycology

C. algology

D. biology

Answer: B

**74.** Who is considered as the founder of mycology?

A. K.C. Mehta

B. G.C Ainsworth

C. P.A. Micheli

D. T.S. Sadasivan

Answer: C

75. Asexual phase of fungi is called as ..............

A. telomorph

B. holomorph

C. metamorph

D. anamorph

Answer: D

**76.** In which mycelium, the hyphae are arranged loosely?

A. Prosenchyma

B. Plectenchyma

C. Pseudoparenchyma

D. Arenchyma

Answer: A

# 77. Number of nuclei in coenocytic mycelium

A. 2

B. many

C. nil

D. 9

Answer: B

78. Thallospores are produced by .....

A. Aspergillus

B. Erysiphe

C. Saccharomyces

D. Fusarium

Answer: B

79. In Agaricus, .....type of sexual

reproduction occurs.

A. spermatization

B. somatogamy

C. oogamy

D. isogamy

Answer: B

80. Albugo belongs to .....

A. oomycetes

B. zygomycetes

C. ascomycetes

D. Deuteromycetes

Answer: A



**81.** Fungi growing on dung is called as .....

- A. Mold fungus
- B. Saprophytes
- C. Capnophilous
- D. Coprophilous

Answer: D

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82. Coprophilous belongs to ......group.

A. Basidiomycetes

B. Ascomycetes

C. zygomycetes

D. oomycetes

Answer: C

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**83.** Which of the following is a coprophilous

fungi?

A. Albugo

B. Entomophthora

C. Rhizopus

D. Pilobolus

Answer: D

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84. Cup fungus belongs to .....

A. zygomycetes

B. oomycetes

C. ascomycetes

D. actinomycetes

#### Answer: C

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# **85.** Which group of fungus is called as Sac fungi?

A. Deuteromycetes

B. Zygomycetes

C. ascomycetes

D. oomycetes

#### Answer: C



# 86. Number of ascospores in an asci is .....

A. 2

B. 4

C. 6

D. 8

#### Answer: D

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87. Shape of perithecium is .....

A. cup shaped

B. flask shaped

C. completely closed

D. open type





# 88. ..... Are called as Club fungi.

- A. Ascomycetes
- B. zygomycetes
- C. Basidiomycetes
- D. Deuteromycetes

Answer: C



- 89. Parasexual cycle is observed in ........
  - A. Basidiomycetes
  - B. zygomycetes
  - C. deuteromycetes
  - D. ascomycetes

## Answer: C

90. Which is called as imperfect fungi?

A. Basidiomycetes

B. zygomycetes

C. deuteromycetes

D. ascomycetes

Answer: C

91. In basidiomycetes, clamp connections are

formed to maintain ..... Condition.

A. monokaryotic

B. coenocytic

C. dikaryotic

D. zygotic

Answer: C

92. ..... is a single celled fungus used in

dairy industry.

A. Volvariella

B. Agaricus

C. Penicillin

D. Yeast

Answer: D

93. Ergot alkaloids are produced by .....

- A. Penicillium notatum
- B. Acremonium chrysogenum
- C. Claviceps purpurea
- D. Penicillium griseofulvum

Answer: C

A. Aspergillus terreus

B. Aspergillus niger

C. Aspergillus oryzae

D. agaricus bisporus

#### Answer: C

95. ..... infest dried foods and produce

carcinogenic toxin.

A. Aspergillus flavus

B. Amanita verna

C. Amanita phallodies

D. Rhizopus

Answer: A

96. Rust of wheat is produced by ......

A. Albugo candida

B. Puccinia graminis tritici

C. Candida albicans

D. Colletotrichum sps

Answer: B

**97.** VAM is a type of .....

A. Endomycorrhiza

B. Ectomycorrhiza

C. Ectendomycorrhiza

D. Endectomycorrhiza

Answer: A

98. Algal partner of lichen is .......

A. phycobiont

B. phytobiont

C. mycobiont

D. both (a) & (c )

Answer: A

99. Asexual reproduction by Soredia is seen in

A. fungi

. . . . . . . . . . . . .

B. lichen

C. mycorrhiza

D. algae

**Answer: B** 

100. Saxicolous lichen grow on.....

# A. ground

B. bark

C. wood

D. rock

Answer: D



101. In leprose form of lichen distinct .....

layer is absent.

A. fungal

B. algal

C. both

D. none

Answer: A

**102.** .....are used as pollution indicators.

A. Algae

B. Lichen

C. fungi

D. Mycorrhiza

**Answer: B** 

103. ..... Acid is obtained from lichen

acting as antibiotics

A. Alginic

B. Acetic

C. Oxalic

D. Usnic

Answer: D

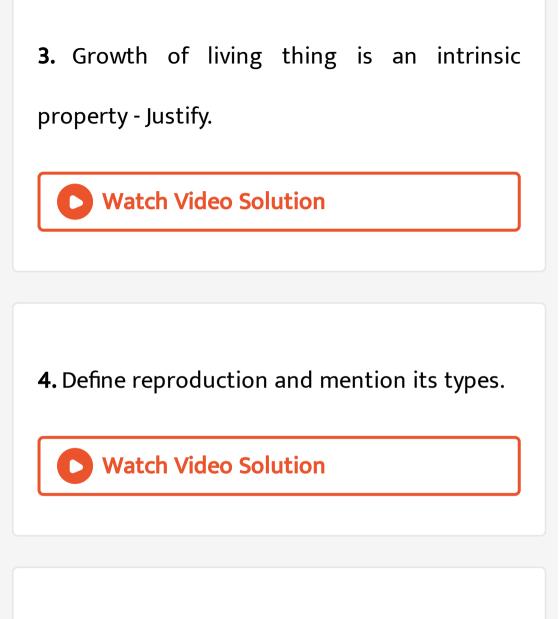
1. Differentiate plant growth from animal

growth.

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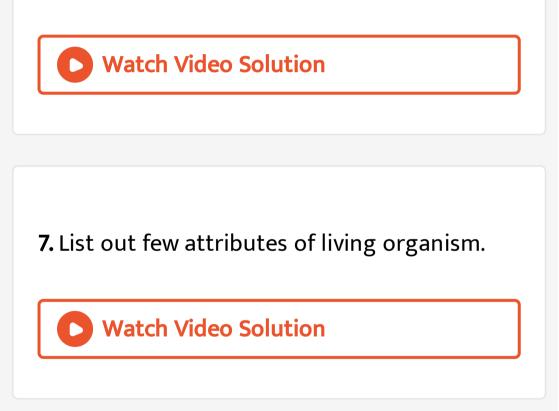
2. Define growth.





5. What is metabolism ? Mention its types.

6. What do you mean by 'consciousness'?



8. Define cyclosis.

**9.** How will you define viruses?

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**10.** Mention the size of bacteriophage and

tobacco mosaic virus (TMV) .

11. Classify viruses based on nature of nucleic

acid with example.

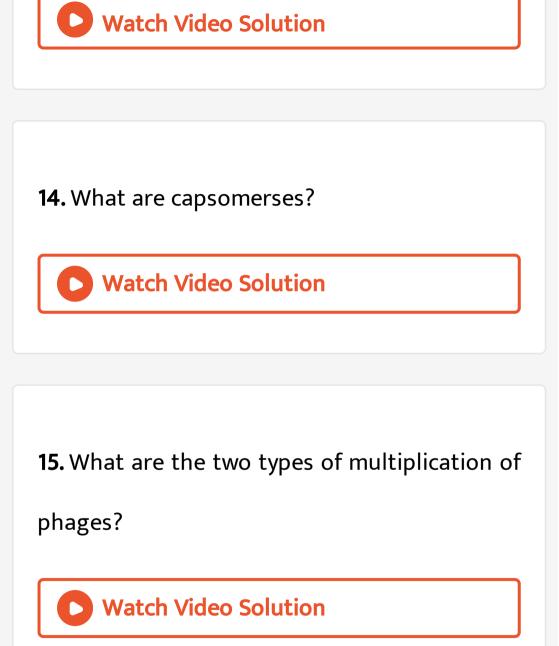
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12. Distinguish between Deoxy viruses and

Ribo viruses with example.



**13.** Write the constituents of virions.



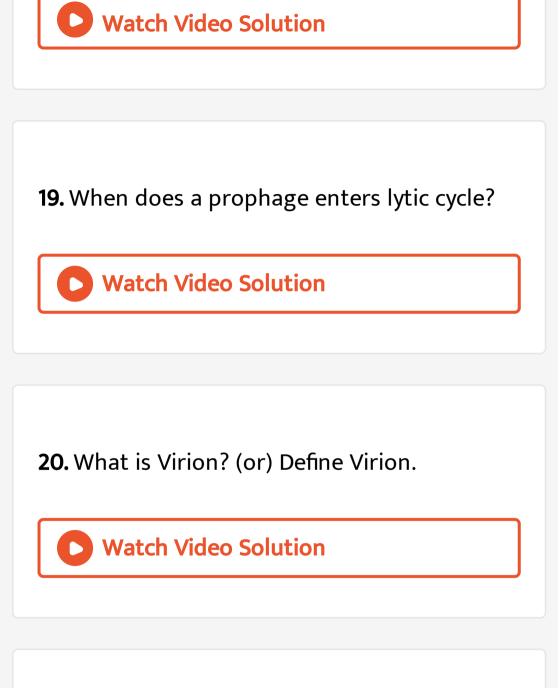
16. What do you mean by 'ghost' in lytic cycle of phage?

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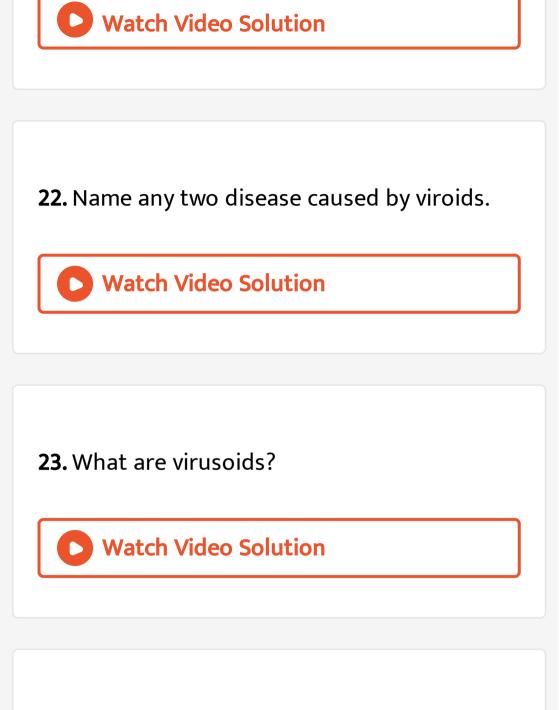
17. What do you understand by "pinning" of phage?



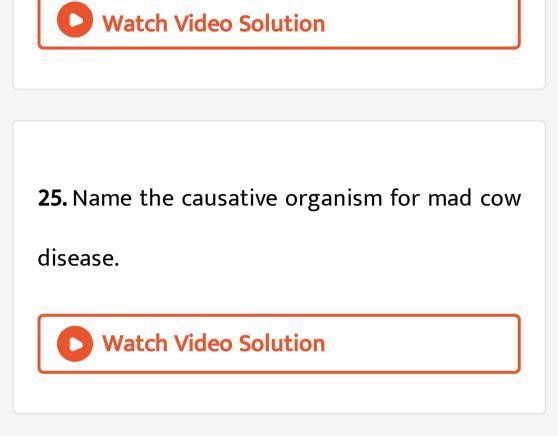
**18.** What is a prophage?



21. What are viroids ?



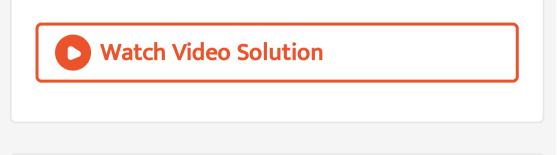
24. Who discovered viroids and virusoids.?



26. What does cyanophages mean? Who

reported it?

**27.** Name any two disease caused by Prions.



28. What are mycophages? Who first reported

it ?



29. Expand the following acronyms : (a) SARS

and (b) AIDS.





30. Name the two groups of animals according

to Aristole.



31. What are the drawbacks of Linnaeus

classification?

32. Name the viruses which are employed as

potential insecticides.

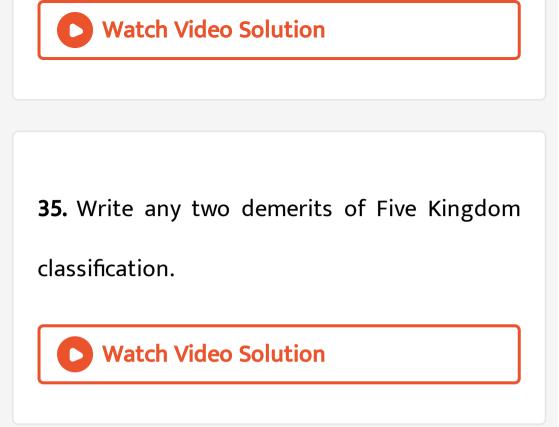


**33.** Who proposed five kingdom classification?

Mention the five kingdoms.

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**34.** List out the criteria undertaken for Whittaker's classification.



## 36. Who proposed six kingdom classification?

Mention the kingdom.

**37.** How milk is changed into curd, if a few drops of curd is added to it? What is the reason for its sourness ?

**38.** Define bacteria and bacteriology.

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**39.** What is Porin? How it helps the bacteria ?



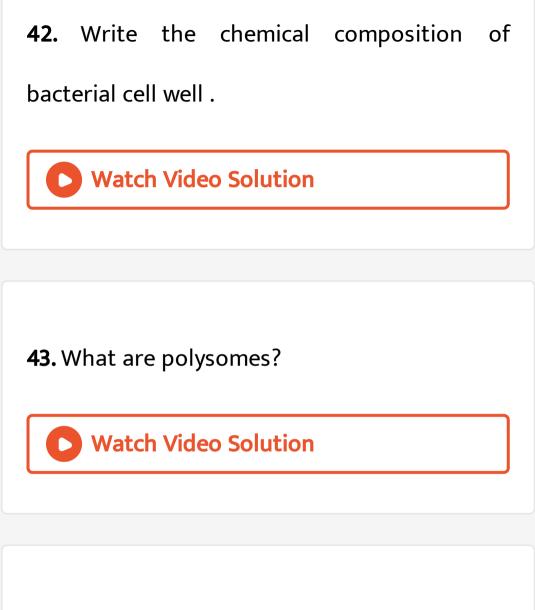


## 40. List out the cytoplasmic inclusions of

bacterial cell.

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41. Define Genophore.



44. What are Pili?

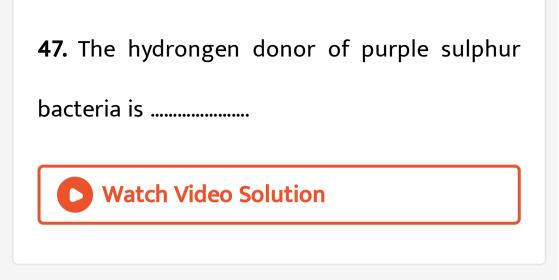
**45.** What are capnophilic bacteria?

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46. Distinguish between Photolithotrophs and

Photoorganotrophs.



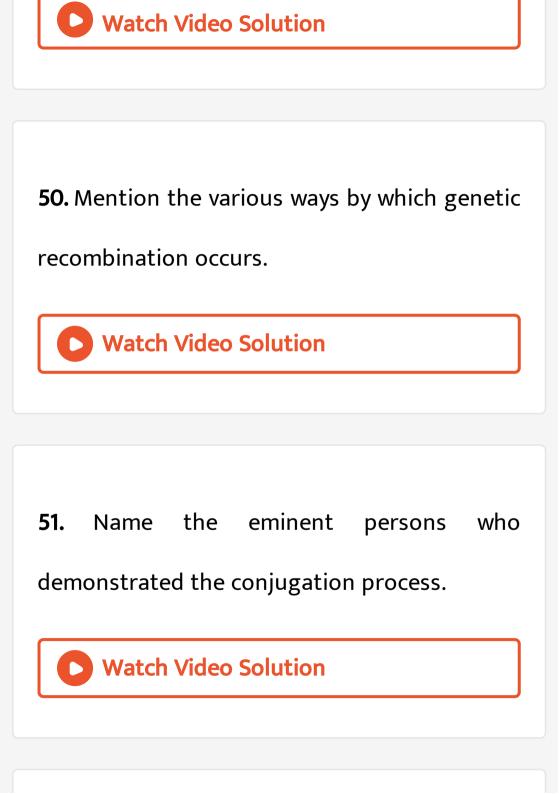


**48.** Name the bacterial pigment of green

sulphur bacteria and purple sulphur bacteria.



**49.** What are endospores? Give examples.



bacteriologist who described it.



53. Which organism and bacterial species was

used in Griffith's transformation experiment?

54. List out the asexual modes of reproduction

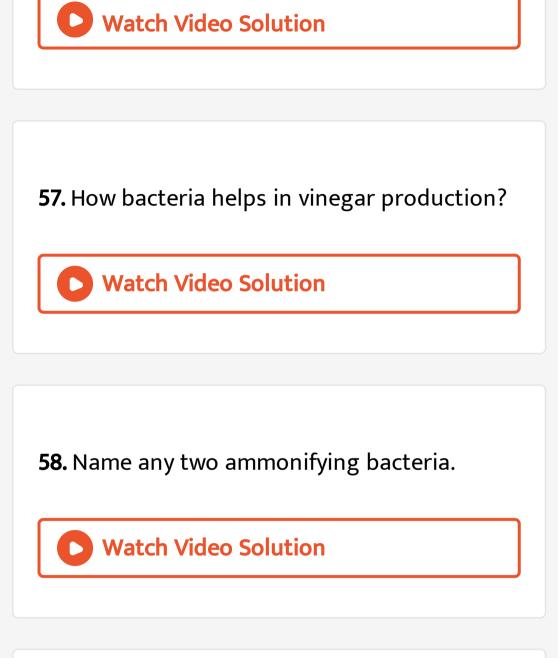
of bacteria.



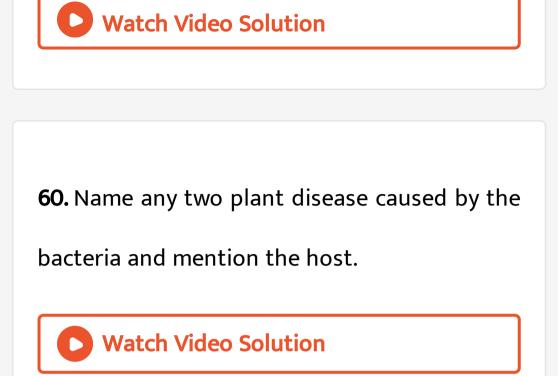
**55.** Who discovered transduction ? Define it.

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**56.** Name any two bacterial species and the antibiotic produced by them.



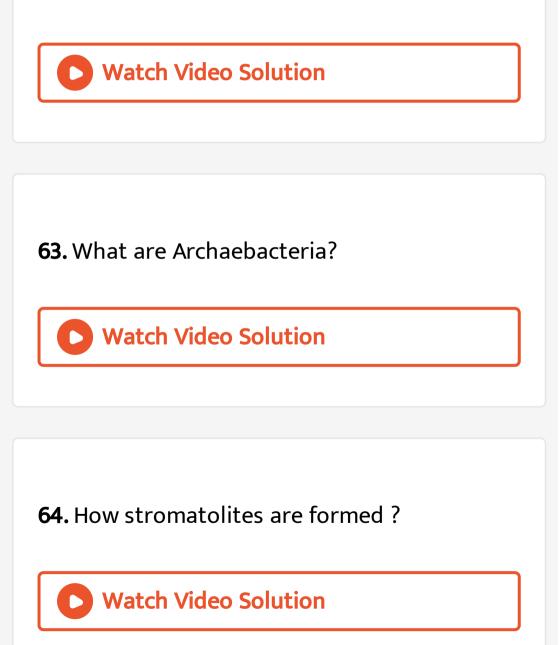
**59.** What do you mean by retting of fibres?



**61.** List out the Animal diseases caused by Bacteria.

62. List out some Human diseases caused by

Bacteria.



**65.** What is the reason for the colour of Red Sea ?



## 66. Mention the cyanobacteria leading

endophytic relation with Cycas roots.

67. Define Cyanobacteria.



68. Blue green algae can also be called as

myxophyceae. How?

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69. Define mycoplasma.

**70.** Name few plant disease caused by mycoplasma.



**71.** Draw and label the structure of mycoplasma.



72. What is the cause for the 'earthy odor' after rain?
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73. When and by whom the penicillin was

discovered ?



74. Define Fungi.

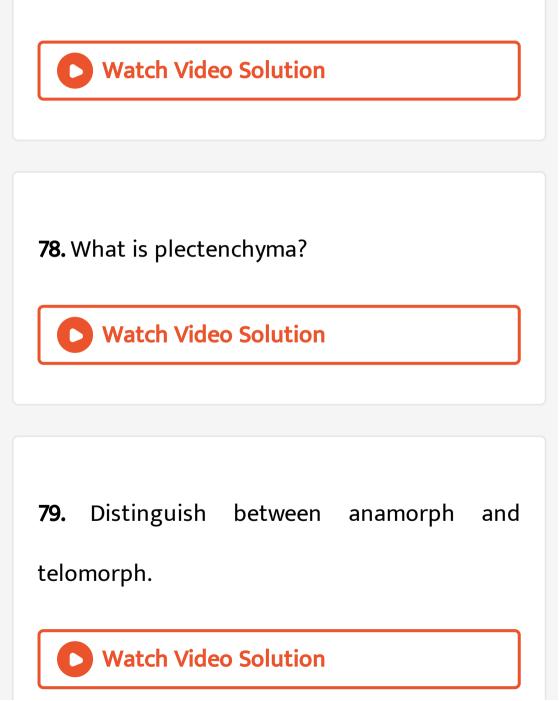


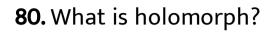
**75.** Define mycology. Who is the founder of mycology?

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**76.** Name few eminent Mycologists.

77. With example define coenocytic mycelium.



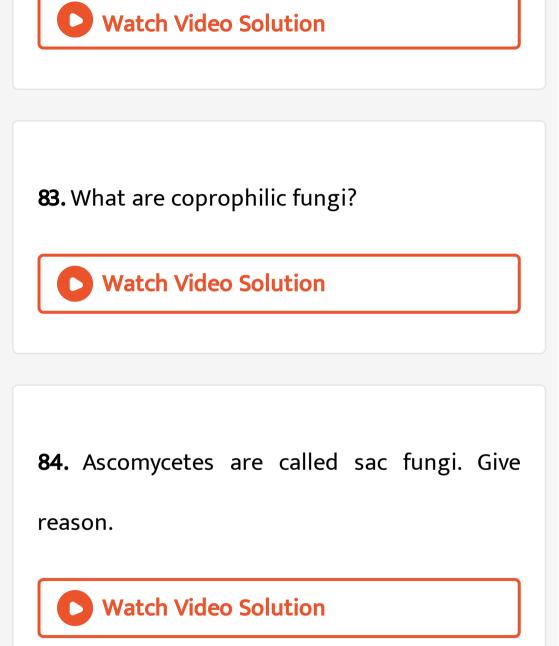


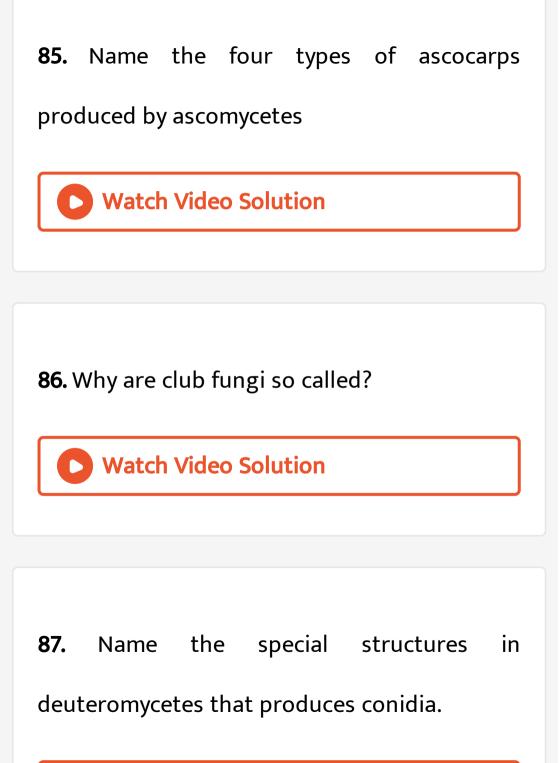
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**81.** What is planogametic copulation?

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**82.** List out the asexual spores produced by fungus.





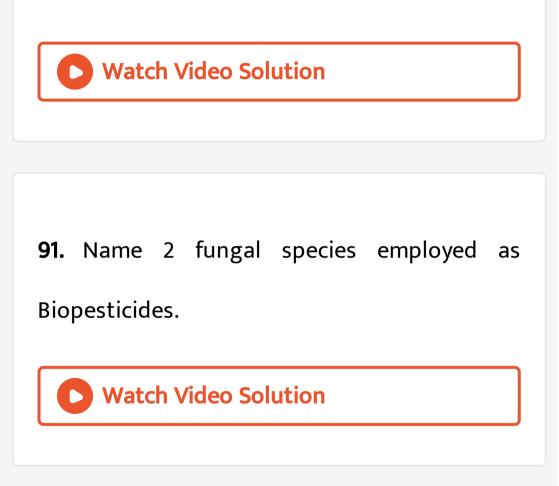


Justify.

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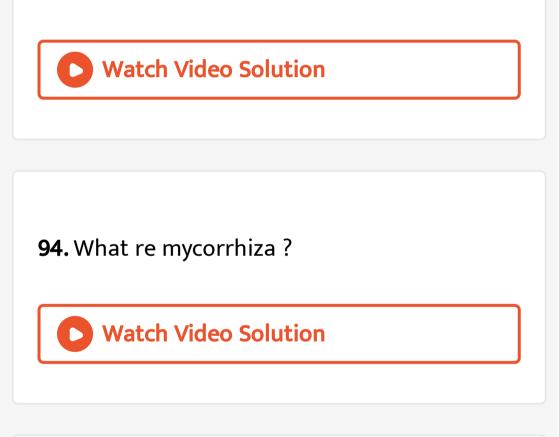
89. List out the antibiotics produced by fungi.

90. Name some toxins produced by fungi.



92. Name few fungal diseases in plants.

**93.** Name few fungal diseases in Humans.



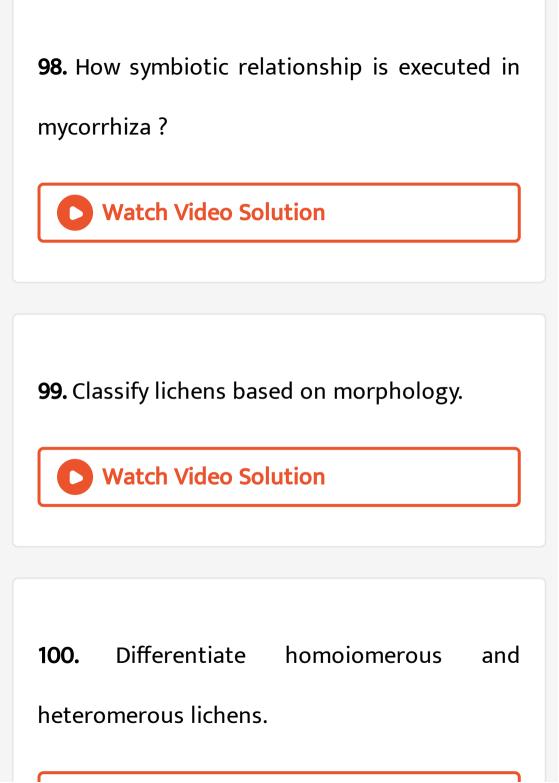
**95.** What are 3 types of mycorrhiza ?

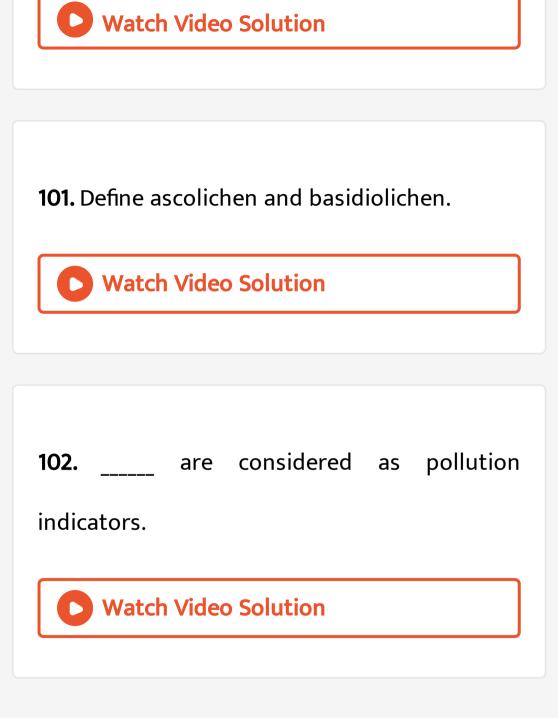
**96.** What is a Lichen?

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97. What do the terms phycobiont and

mycobiont signify?





**103.** Classify lichens based on habitat.

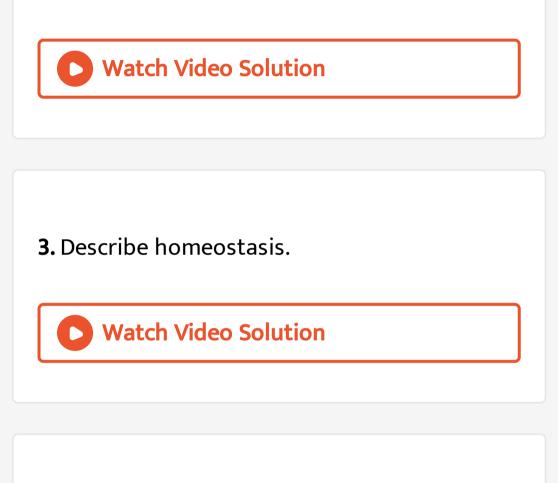


# Additional Questions Solved Short Answer Type Questions

 distingulish between prokaryotes and eukaryotes.

2. Mention the different modes of asexual

reproduction.



4. Why are viruses considered to be a

biologist's puzzle?





5. State the 3 types of viral symmetry,

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6. Enumerate the living and non-living

characters of viruses.

7. Name any one RNA animal virus and DNA

plant virus.

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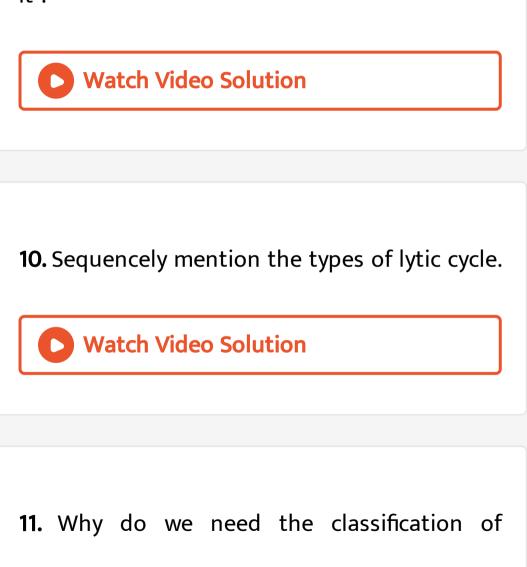
8. What are the symptoms of Tobacco Mosaic

Disease?



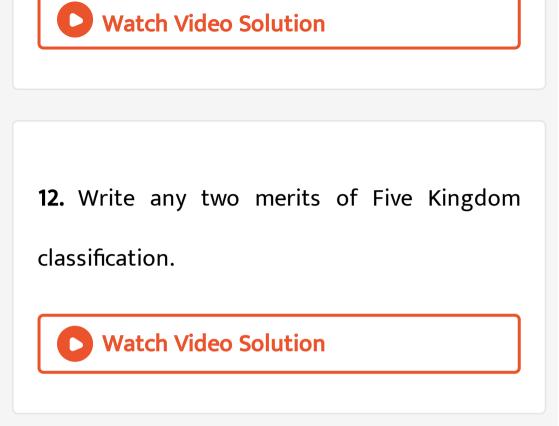
9. Wat are bacteriophages ? Where can we find

it?



organisms ?

٦

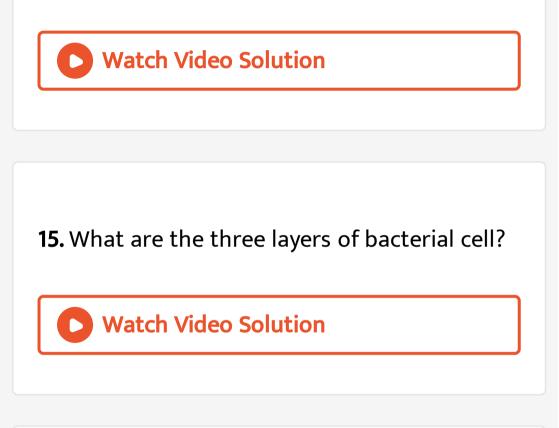


## 13. Who is called as founder of modern

bacteriology? Mention his contribution?

14. Draw Amphitrichous, Lophotrichous and

Peritrichous flagellation in bacteria.



**16.** What is a capusle? Mention its role.

**17.** What are plasmids? How it helps the bacteria?



## 18. Classify plasmides based on function.

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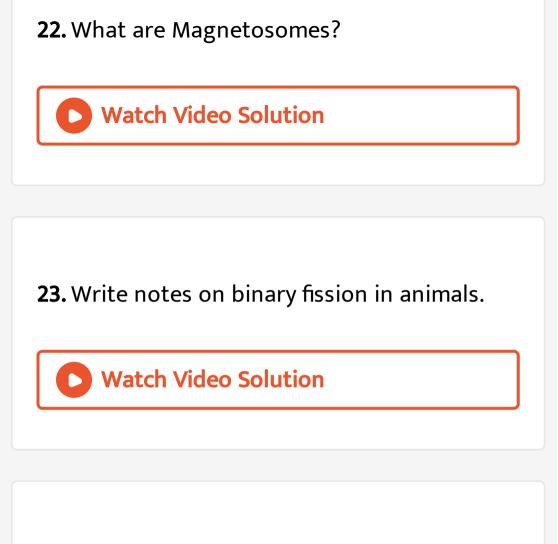
**19.** What are mesosomes?





21. Name the three components of gram

negative cell wall.

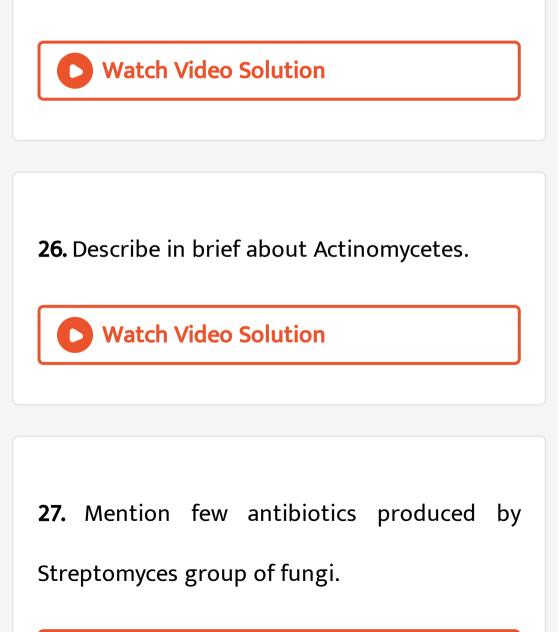


24. How do archaebacteria thrive at extreme

temperatures and against lytic agents ?

25. Name few members of cyanobacteria which

act as phycobiont in lichen thalli.





**28.** Explain in brief about the plant body of fungi?

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29. Point out the steps involved in sexual

reproduction of fungi.

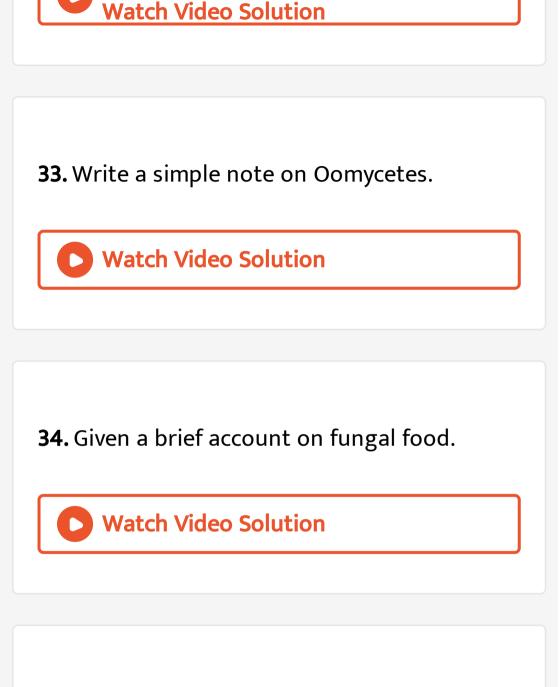
**30.** Differentiate between Anisogamy and

Oogamy with an example of fungus.

<b>Watch Video So</b>	lution				
<b>31.</b> Define Spermatizat	ion.				
<b>O</b> Watch Video Solution					
<b>32.</b> Draw a simple	diagram	showing	the		

budding of yeast.





**35.** List out the importance of mycorrhiza.





36. How symbiotic relationship is executed in

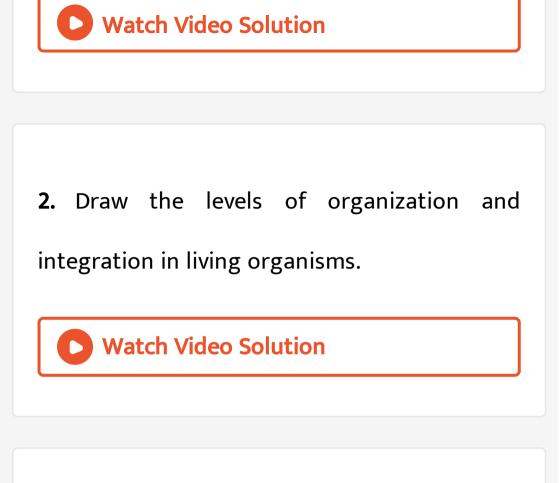
mycorrhiza?

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Additional Questions Solved Long Answer Type Questions

1. Define metabolism. List out the difference

between the types of metabolism.



3. Enumerate the living and non-living

characters of viruses.



4. Describe the structure of Tobacco Mosaic

Virus.



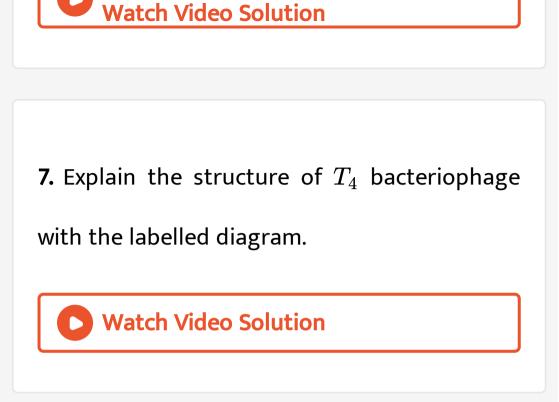
5. What are the features based on which David

Baltimore classified viruses?

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6. Give an account of viral genome.





8. Give a concise account on virulent cycle (or)

Explain Lytic cycle of a phage.

9. Explain the lysogenic multiplication of

phages.



10. Draw a tabular column and compare the

characters of five kingdoms.

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**11.** List out the general characters of bacteria.



bacterial cell.



## 13. Write in detail about Plasmids.

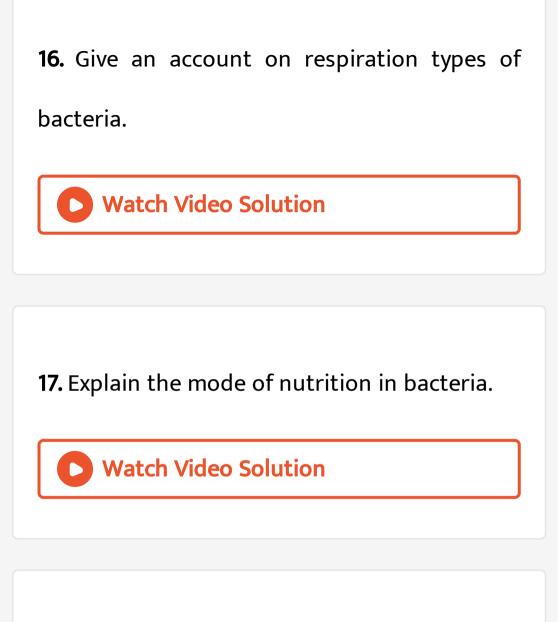


**14.** Describe the structure of Gram positive and Gram negative bacterial cell wall using diagram.



**15.** Differentiate Gram positive and Gram negative bacteria.





**18.** Describe the process of transformation.

**19.** Define Conjugation.

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## 20. Write in detail about transduction and its

types.



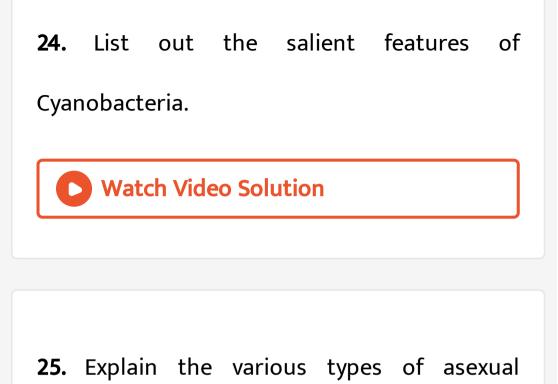
**21.** Discuss the role of bacteria in Industries.



**22.** Explain the role of bacteria in antibiotic production and medicines.

Watch Video Solution

**23.** Discuss the role of bacteria in soil fertility.



reproduction in fungi.



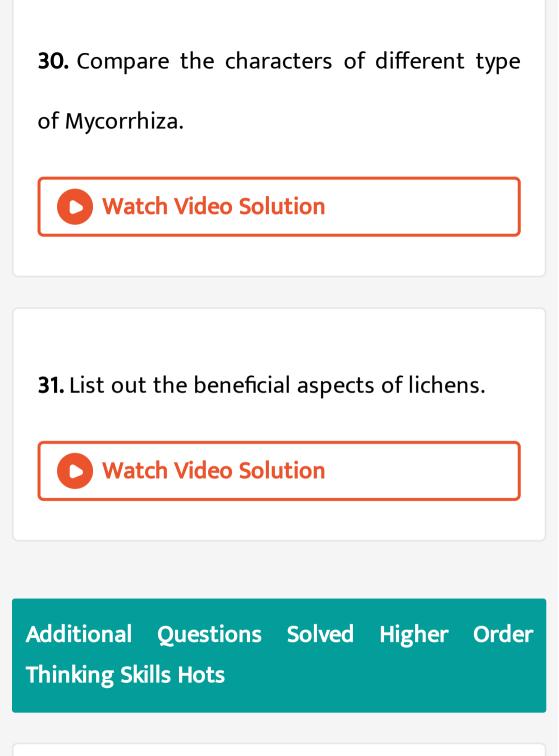
26. Explain the various types of asexual reproduction in fungi.Watch Video Solution

27. Give the salient features of the class

Zygomycetes.



28. Write down the salient features of Ascomycetes. Watch Video Solution **29.** List out the salient features of Basidiomycetes. Watch Video Solution



1. Viruses and viroids are infectious particles.

How do you differentiate one from other?

O	Watch V	ideo Sol	ution	

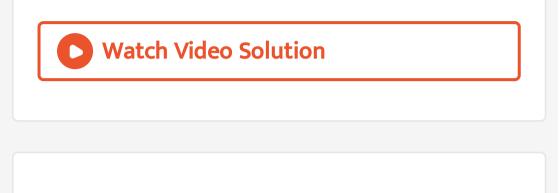
Mention the kingdoms included in
 Whittaker's classification.

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**3.** Arrange the following in a proper sequence with respect to fungal sexual cycle.

Karyogamy, protoplasmic fusion, meiosis and

spores production.



4. List out major attributes and features that a

cell must possess to call it as a living one.

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**5.** In five kingdom classification, actinomycetes and mycoplasma belongs to same kingdom.

(a) Name the kingdom.

(b) Which level of body organization does they

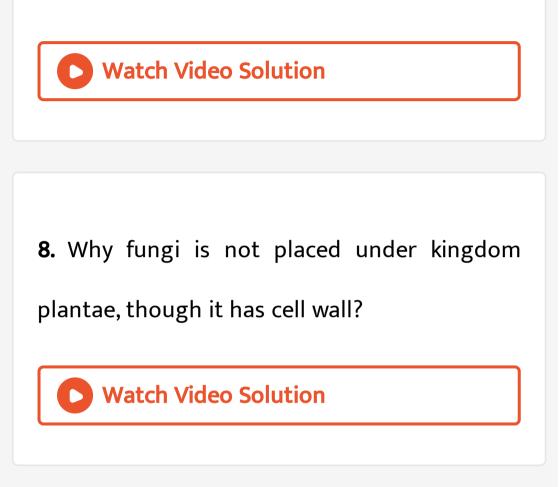
exhibit.

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<b>6.</b> Are viruses useful to us? Justify.
Watch Video Solution
7. Write the appropriate term for each of the

following:

(a) Complex sugar that makes fungal cell wall.

(b) Blue green algae.



**9.** Which organism is more complex and highly evolved among blue green algae, mushroom

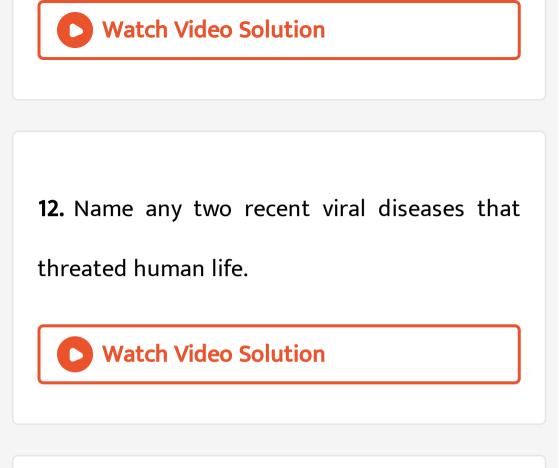




**10.** Why viruses are not included in the category of microorganisms?

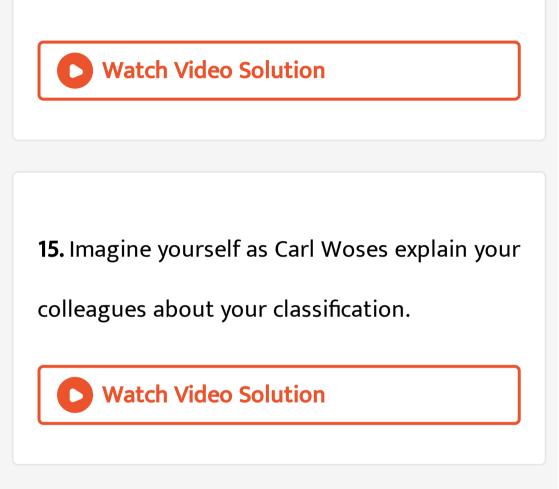
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**11.** Generally nucleic acid in viruses is present as single unit. Name any two viruses that possess segmented nucleic acid.



**13.** When does a prophage enters lytic cycle?

**14.** Capsule layer helps the bacterium . How ?



**16.** Name the strains used in Gram staining procedure.

