

Which type of nucleic acids present in corona virus?



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MODEL QUESTIONS

- One of the largest herbarium of world is located in?
 - Kew
 - Geneva
 - Berlin
 - Sweden

A. a;
Largest herbarium of the world is situated in Royal Botanical Garden. The collections at Kew and Wakehurst Place include over 28,000 taxa of living plants, 8.3 million plant and fungal herbarium specimens, and 30,000 species in the seed bank.
- Plants reproducing by spores such as mosses and ferns are grouped under the general term:
 - Sporophytes
 - Thallophytes
 - Cryptogams
 - Bryophyte

A. c;
Eichler divided plant kingdom into two sub-kingdoms - cryptogamae and phanerogamae. All plants without flowers and seeds are included in the sub-kingdom cryptogamae whereas phanerogamae includes plants which bear flowers and seeds. Cryptogams are further classified into three divisions, Thallophyta, Bryophyta and Pteridophyta. Spore bearing plants such as mosses and ferns belong to cryptogams because instead of reproducing by flowers and seeds they reproduce by means of spores.
- Plastids are totally absent in?
 - Fungi
 - Blue green algae
 - Bacteria
 - All of these

A. d;
Plastids are double membrane bound cell organelle characteristic of higher plants. They are not found in prokaryotes like bacteria and blue green algae. Fungi are heterotrophic eukaryotes. They lack plastids.
- Genetic material of TMV is?
 - ss-DNA
 - ds-DNA
 - ss-RNA
 - ds-RNA

A. c;
Tobacco mosaic virus (TMV) is the virus that affects the tobacco plant. The genetic material is a single-stranded RNA.
- Plant viruses generally have
 - ss-DNA
 - ds-DNA
 - ss-RNA
 - ds-RNA

A. c;
The great majority have an RNA genome, which is usually small and single stranded (ss), but some viruses have double-stranded (ds) RNA, ssDNA or dsDNA genomes.
- Identify Mismatch one Food reserves in Algae?
 - Starch-Chlorophyta
 - Laminarian-Brown algae
 - Paramylon-Euglenoids
 - Floridean-Crysohyta

A. d;
Floridian starch present in rhodophyta or red algae.



- Monoecious condition is found in?
 - Pinus
 - Cycas
 - Date
 - Marchantia

A. a;
Pinus is a monoecious gymnospermic plant, both male and female cones occur on the same plant. Marchantia (bryophyte), Cycas (gymnosperm) and date palm (angiosperm) all are dioecious plants, male and female plants are separate.
- Which of the following pair is wrong?

Plant	----	Parasite
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 - Rafflesia (total stem parasite)
 - Cuscuta (total stem parasite)
 - Viscum (partial stem parasite)
 - Orobancha (total root parasite)

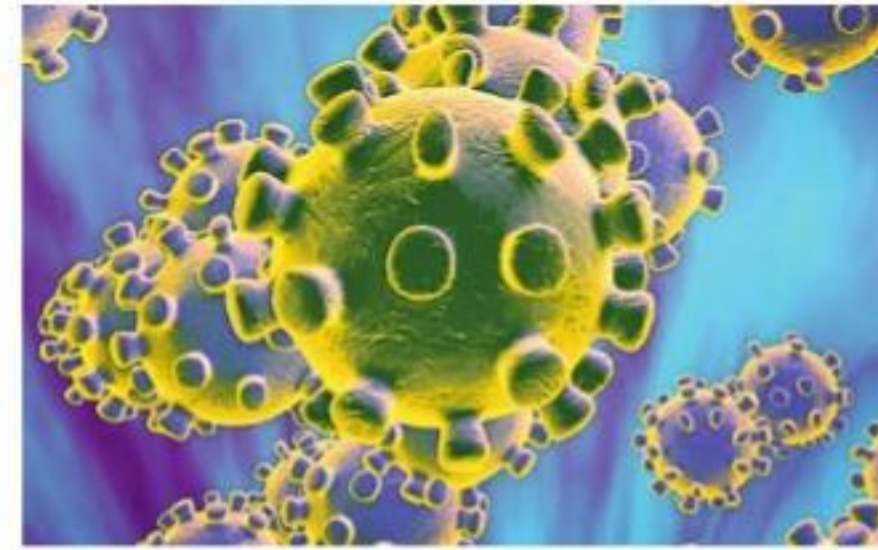
A. a;
Some of the parasitic plants are Rafflesia (total root parasite), Cuscuta (total stem parasite), Viscum (partial stem parasite), Loranthus (partial stem parasite), Striga (partial root parasite), Balanophora (total root parasite), Orobancha (total root parasite)
- Thorn Apple belongs to ---- family?
 - Rosaceae
 - Solanaceae
 - Annonaceae
 - Fabaceae

A. a;
Thorn apple, also called gypsum weed and moonflower, is a poisonous plant belonging to the nightshade family(Solanaceae)
- Juicy hair like structures are observed in the lemon fruit which is developed from?
 - Exocarp
 - Endocarp
 - Mesocarp
 - Mesocarp and endocarp

A. b;
Endocarp - Lemon is hesperidium fruit. Multiple chambered multicarpellary, syncarpous, multicolour, superior ovary bearing seeds on 'axile placentation'.
- Father of plant anatomy who also coined the term tissue
 - Schleiden
 - N.Grew
 - Hanstein
 - None

A. b;
Marcello malpighi, Nehemiah grew is known as father of anatomy. K. A choudhry is known as father of Indian plants anatomy.
- Companion cells are closely associated with:
 - Tricomes
 - Guard cells
 - Vessel elements
 - Sieve elements

A. d;
companion cell A type of cell found within the phloem of flowering plants. Each companion cell is usually closely associated with a sieve element.
- Indian rubber is obtained from the latex of
 - Hevea brasiliensis
 - Ficus elastica
 - Carics papaya
 - Papaver somniferoum



- A. a;**
Most natural rubber (also called India rubber) is derived from the natural latex extracted from the Pará rubber tree (Hevea brasiliensis)
- Tyloses are formed in?
 - Cortex
 - Secondary phloem
 - Pericycle
 - Tracheary elements

A. d;
Tyloses are outgrowths from xylem parenchyma cells that grow into the lumen of tracheary cells through pits.
 - Companion cells are
 - Sclerenchymatous nature
 - Parenchymatous nature
 - a and b
 - none

A. b;
The specialized, modified parenchymatous present in the phloem of angiosperms are called Companion cells.
 - Sieve tube is
 - Vessel like structure
 - Provide with oblique septa
 - Trans location of food
 - All of these

A. d;
Sieve elements are specialized cells that are important for the function of phloem, which is a highly organized tissue that transports organic compounds.
 - Matching the following.

List-1	List-2
A) Chloroplast	1) Karyolmiph
B) ER	2) Kinetochore
C) Mitochondria	3) Thylakoid
D) Nucleus	4) Cisterna
	5) Cristae

A	B	C	D	A	B	C	D
a) 3	4	5	1	b) 1	5	4	3
c) 1	3	4	5	c) 3	2	1	5

A. a;
 - During meiosis, the alleles of the parental pair separate or segregated from each other. How many allele(s) is/are then transmitted to a gamete?
 - Four
 - Two
 - Six
 - One

A. d;
In a normal diploid population, each homologue of a homologous pair of chromosome has one allele. When the two homologous chromosomes of a pair separate, alleles separate and finally only one allele goes to each gamete.
 - Study the following Lists.

List-1	List-2
A) Golgi complex	1) Lysosome production
B) Ribosomes	2) Peptide bond formation
C) Endoplasmic reticulum	3) Secretion of Lipids

- D) Peroxisomes
- | | | | | | | | |
|------|---|---|---|------|-------------------------------|---|---|
| | A | B | C | D | 4) Synthesis of phospholipids | | |
| a) 1 | 2 | 3 | 4 | b) 3 | 2 | 1 | 5 |
| c) 4 | 2 | 1 | 3 | d) 3 | 2 | 1 | 4 |
- A. d;**
- Give me Mismatch one.
 - Trisomic-2n+1
 - Tetrasomic-2n+2
 - Monosomic-2n-1
 - Nullisomic-2n-4

A. d;
 - Most abundant protein in the human body is
 - Collagen
 - Myosin
 - Rubisco
 - Actin

A. a;
Polypeptides are, indeed, the building blocks of your body. And, the most abundant protein in your body is collagen.
 - Nucleotide consists of
 - N₂ base
 - N₂ base + Sugar
 - N₂base +Sugar+Phosphate
 - Sugar+ Phosphate

A. c;
A nucleotide consists of three things: A nitrogenous base, which can be either adenine, guanine, cytosine, or thymine (in the case of RNA, thymine is replaced by uracil). A five-carbon sugar, called deoxyribose because it is lacking an oxygen group on one of its carbons. One or more phosphate groups.
 - Select the matched ones.
 - S-phase - DNA replication
 - Zygotene - Synapsis
 - Diplotene - Crossing over
 - Meiosis - Both haploid and diploid cells
 - G₂-phase - Quiescent stage
 - I, II only
 - III, V only
 - III, IV only
 - I, III, V only

A. a;
A cell cycle comprises of interphase and division phase. The interphase is the longest phase of cell cycle. It comprises of first growth phase, S phase and second growth phase. The S phase is the synthesis phase in which DNA replication occurs. The meiotic division is carried out in two stages: meiosis I and meiosis II. The meiosis I comprises of prophase I, metaphase I, anaphase I and telophase I. The prophase I is very elaborate stage and comprises of several substages - leptotene, zygotene, pachytene, diplotene and diakinesis. The chromosomes coil at the leptotene stage. Homologous chromosomes pair at the zygotene stage. The pairing of homologous chromosomes is called as synapsis. This is followed by crossing over in the pachytene stage.
 - Which type of nucleic acids present in corona virus?
 - ssRNA
 - dsRNA
 - dsDNA
 - ssDNA

A: a
The CoVs have become the major pathogens of emerging respiratory disease outbreaks. They are a large family of single-stranded RNA viruses (+ssRNA) that can be isolated in different animal species.