

MISSION CAPF HUB

BY SWAPNIL WALUNJ

BIOLOGY CAPF PREVIOUS YEARS QUESTION [PYQ] PAPER ANALYSIS

ANALYSIS [2019-2015] & APPROACH

 [Join Telegram = t.me/missioncapfhub](https://t.me/missioncapfhub)

 [Join YouTube = missioncapfhub](https://www.youtube.com/missioncapfhub)

MISSION CAPF HUB

BY SWAPNIL WALUNJ

INDEX

SERIAL NO.	YEAR OF EXAMINATION	PAGE NO.
1	CAPF 2019	3
2	CAPF 2018	7
3	CAPF 2017	10
4	CAPF 2016	11
5	CAPF 2015	13

IN THIS **CORE ANALYSIS PDF** YOU WILL GET

1] Questions & answer

2] Explanation

3] Source of question from NCERT with chapter no. & page no.

SCIENCE = BIOLOGY = 2019

1. Which one of the following statements is correct

- (a) Bacteria contain cytoplasm viruses do not
- (b) Bacteria contain mitochondria but Viruses do not
- (c) Viruses contain mitochondria but bacteria do not
- (d) Viruses have a cell membrane but bacteria do not

Ans = a

Explanation = Virus lack cytoplasm. They fail to perform metabolic activities. & Most of the virus contain RNA or DNA, but not both.

Source = 11th biology NCERT / Chapter 2= page no. 26

2. Which one of the following will happen if the medium surrounding the cell has a higher concentration than the cell

- (a) The cell will gain water
- (b) The cell will die
- (c) There will be no change
- (d) The cell will lose water

Ans = a

Explanation = If the medium surrounding the cell has a higher water concentration than the cell, meaning that the outside solution is very dilute, the cell will gain water by osmosis. Such a solution is known as a hypotonic solution. Water molecules are free to pass across the cell membrane in both directions, but more water will come into the cell than will leave. The net (overall) result is that water enters the cell. The cell is likely to swell up.

Source = 9th biology NCERT / Chapter 5= page no. =60

3. Rough endoplasmic reticulum (RER) looks rough under the microscope because of the attachment of which one of following cell organelles to its surface

- (a) Centrioles
- (b) Plastids
- (c) Lysosomes
- (d) Ribosomes

Ans =d

MISSION CAPF HUB

BY SWAPNIL WALUNJ

Explanation = RER looks rough under a microscope because it has particles called ribosomes attached to its surface. The ribosomes, which are present in all active cells, are the sites of protein manufacture

Source = 9th biology NCERT / Chapter 5= page no. =63

4. The increase in length of stems and roots in plants is due to

- (a) lateral meristem
- (b) intercalary meristem
- (c) apical meristem
- (d) secondary growth

Ans = c

Explanation = Apical meristem is present at the growing tips of stems and roots and increases the length of the stem and the root

Source = 9th biology NCERT / Chapter 6= page no. =69

5. In plant cells, the turgidity and rigidity is provided by

- (a) ribosomes
- (b) mitochondria
- (c) golgi apparatus
- (d) vacuoles full of cell sap

Ans =d

Explanation = In plant cells vacuoles are full of cell sap and provide turgidity and rigidity to the cell.

Source = 9th biology NCERT / Chapter 5= page no. =65

6. Pollens are produced in

- (a) Corolla
- (b) Style
- (c) Stigma
- (d) Anther

Ans = d

Explanation = Reproduction in flowering plants involves transfer of pollen grains from the anther to the stigma which is referred to as pollination.

Source = 10th biology NCERT / Chapter 8 = page no. =140

7. Phreatophytes are the plants adapted to grow in

- (a) moist shaded places
- (b) rocky environments
- (c) arid environments
- (d) active volcanic lava

Ans = c

Explanation = Phreatophytes are true xerophytes which have deep root systems allow them to reach the zone of saturation in order to access water during long periods of **drought** . Due to this **adaptation**, **phreatophytes** have a relatively constant supply of water and therefore don't need to store it.

8. Which of the following organisms belongs to Coelenterata (Cnidaria)

- (a) Planaria and liver fluke
- (b) Sea urchin and sea cucumber
- (c) Hydra and sea anemone
- (d) Euplectella and sycon

Ans = c

Explanation = span (Hydra). Jellyfish and sea anemones are common examples of **Coelenterata (Cnidaria)**

Source = 9th biology NCERT / Chapter 7= page no. =89

9. Bending of shoot of a plant towards light can be referred to as

- (a) photonasty
- (b) positive phototropism
- (c) negative phototropism
- (d) photoperiodism

Ans = b

Explanation = Phototropism is one of the many plant tropisms or movements which respond to external stimuli. Growth towards a light source is called **positive phototropism**, while growth away from light is called **negative phototropism** (skototropism)

Source = 11th biology NCERT / Chapter 15= page no. =248

10. Epidermal cells of plant roots increase their absorption surface by having

- (a) Scales

MISSION CAPF HUB

BY SWAPNIL WALUNJ

- (b) Root hairs
- (c) Endodermis
- (d) Stomata

Ans = b

Explanation = Epidermal cells of the roots, whose function is water absorption, commonly bear long **hair-like** parts that greatly increase the total absorptive surface area

Source = 9th biology NCERT / Chapter 6= page no. = 72

CAPF PLUS=EMP

- 1 Exclusive mentorship programme to mentor from basic
- 2 Daily NCERT Chapter wise Quiz
- 3 Daily CAPF PYQ Chapter wise Analysis
- 4 PAPER 2 preparations = current based topics
- 5 Daily Current affairs updates & their linkage to both papers topcs.
- 6 Fact shots = trend & PYQ based short notes

contact for joining t.me/swapnil191 or 7057227225

FEE = Rs 499/- only till
AUGUST 2020

Initiative by **MISSION CAPF HUB**

SCIENCE = BIOLOGY = 2018

11. Which one of the following statements about transport mechanism in plants is correct?

- a) Diffusion of ions and small molecules across cell membrane requires energy
- b) Active transport of ions and small molecules across cell membrane against concentration gradient requires energy.
- c) Cells conserve energy and no energy is required for transport of ions and small molecules against concentration gradient.
- d) Cells do not transport ions across their membrane as these are charged molecules.

Ans = b

Explanation = Active transport uses energy to transport and pump molecules against a concentration gradient. Active transport is carried out by specific membrane-proteins

Source = 11th biology NCERT / Chapter 11= page no. = 178

12. Which one of the following statements about blood elements is correct?

- (a) Red blood cells number is same as that of white blood cells and platelets
- (b) The number of white blood cells is more than red blood cells
- (c) The number of red blood cells is the highest
- (d) The number of red blood cells is lower than platelets.

Ans = c

Explanation =Erythrocytes or red blood cells (RBC) are the most abundant of all the cells in blood. A healthy adult man has, on an average, 5 millions to 5.5 millions of RBCs mm⁻³ of blood.

Source = 11th biology NCERT / Chapter 18= page no. = 279

13. Which one of the following statements regarding muscle contraction and relaxation is correct?

- (a) it involves movement of Zn⁺⁺ ion.
- (b) It involves Ca⁺⁺ ion of blood
- (c) It involves release of Ca⁺⁺ from sarcoplasmic reticulum (SR) and pumping Ca⁺⁺ back in SR.
- (d) It involves exchange of Na and K

Ans = c

Explanation = The endoplasmic reticulum, i.e., sarcoplasmic reticulum of the muscle fibres is the store house of calcium ions. A characteristic feature of the muscle fibre is the presence of a large number of parallelly arranged filaments in the sarcoplasm called myofilaments or myofibrils.

Source = 11th biology NCERT / Chapter 20= page no. = 304

MISSION CAPF HUB

BY SWAPNIL WALUNJ

14. Which one of the following statements regarding digestion is correct?

- (a) Fat present in the food is digested by trypsin and chymotrypsin
- (b) Starch of food is digested by lipases
- (c) Fat of food is digested by lipases
- (d) Nucleic acid is digested by amylases

Ans = c

Explanation = The pancreas secretes pancreatic juice which contains enzymes like trypsin for digesting proteins and lipase for breaking down emulsified fats.

Source = 10th biology NCERT / Chapter 6= page no. = 100

15. Which one of the following statements is correct?

- (a) In photosynthesis by green plants, carbon dioxide is used for making carbohydrate
- (b) During photosynthesis, plants use oxygen for making carbohydrate.
- (c) The carbohydrate generated by plants comes from soil
- (d) The carbohydrate generated by plants comes from urea.

Ans = a

Explanation = Carbon and energy requirements of the autotrophic organism are fulfilled by photosynthesis. It is the process by which autotrophs take in substances from the outside and convert them into stored forms of energy. This material is taken in the form of carbon dioxide and water which is converted into carbohydrates in the presence of sunlight and chlorophyll

Source = 10th biology NCERT / Chapter 6= page no. = 95

16. Which one of the following statements regarding insulin hormone is correct?

- (a) Insulin is a protein hormone which is not produced in human body.
- (b) Insulin is a steroid hormone which is produced in human body.
- (a) Insulin is a cholesterol driven hormone given to human
- (c) Insulin is a protein hormone which is produced in human body

Ans = d

Explanation = insulin hormone which is produced by the pancreas and helps in regulating blood sugar levels. If it is not secreted in proper amounts, the sugar level in the blood rises causing many harmful effects.

Source = 10th biology NCERT / Chapter 6= page no. = 95

17. Which one of the following statements about proteins in mammalian cells is correct?

- a) Proteins in mammalian cells are synthesized in cell membrane.

MISSION CAPF HUB

BY SWAPNIL WALUNJ

b) Proteins in mammalian cells are not synthesized in cell membrane but directly absorbed from food.

c) Proteins in mammalian cells are synthesized in rough endoplasmic reticulum.

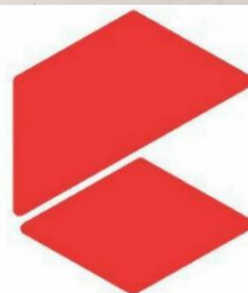
d) Proteins in mammalian cells are synthesized in Golgi apparatus.

Ans = c

Explanation = Rough endoplasmic reticulum (RER) looks rough under a microscope because it has particles called ribosomes attached to its surface. The ribosomes, which are present in all active cells, are the **sites of protein manufacture**. The manufactured proteins are then sent to various places in the cell depending on need, using the ER.

Source = 9th biology NCERT / Chapter 5 = page no. = 63

CAPF PAPER 2 TEST SERIES



MISSION CAPF HUB

FEATURES

TOTAL 8 TEST.

APPROACH BUILDING WITHOUT JOINING COACHING .

EVALUATION WITHIN 7 DAYS.

24/7 PHONE CALL ACCESS .

CONTACT DETAILS

MOB NO = 7057227225

EMAIL =

MISSIONCAPFHUB@GMAIL.COM

SCIENCE = BIOLOGY = 2017

18. Which one of the following is NOT decomposed by bacterial action?

- A. Vegetable remains
- B. Plastic materials
- C. Animal carcasses
- D. Wastes of flowers

Ans = b

Explanation = many human-made materials like plastics will not be broken down by the action of bacteria or other saprophytes.

Source = 10th biology NCERT / Chapter 15= page no. = 257

19. Which one of the following elements is present in the green pigment of leaves?

- A. Magnesium
- B. Iron
- C. Calcium
- D. Copper

Source: NCERT Class 11 Biology Page 4

Ans = a

Explanation = Essential elements that are components of energy-related chemical compounds in plants (e.g., magnesium in green pigment of leaves i.e. chlorophyll)

Source = 11th biology NCERT / Chapter 12 = page no. = 196

❖ Visit our website www.Missioncapfhub.com

❖ Join telegram channel [Missioncapfhub](#) (click here)

SCIENCE = BIOLOGY = 2016

20. Which one of the following is the correct taxonomic hierarchy?

- (a) Kingdom-Phylum-Order-Genus-Family-Class Species
- (b) Kingdom-Order-Class-Phylum-Family-Genus Species
- (c) Kingdom-Class-Order-Phylum-Family-Species Genus
- (d) Kingdom-Phylum-Class-Order-Family-Genus Species

Ans = d

Explanation = Kingdom Phylum (for animals) / Division (for plants) Class Order Family Genus Species

Source = 9th biology NCERT / Chapter 7 = page no. = 83

21. The subunits of DNA are known as

- (a) Nucleotide
- (b) Nucleosome
- (c) Nucleoside
- (d) Polypeptide

Ans = a

Explanation = Nucleic acids (RNA and DNA) are composed of nucleotides. For nucleic acids, the building block is a nucleotide. A nucleotide has three chemically distinct components. One is a heterocyclic compound, the second is a monosaccharide and the third a phosphoric acid or phosphate.

Source = 11th biology NCERT / Chapter 9= page no. = 149 & 160

22. How is the rate transpiration affected by decreasing humidity and by decreasing light intensity?

Decreasing humidity Decreasing light intensity

- (a) Decreases Decreases
- (b) Increases Decreases
- (c) Increases Increases
- (d) Decreases Increases

Ans = b

Explanation = Decreasing humidity Increases & Decreasing light intensity Decreases

Source = 11th biology NCERT / Chapter 11

MISSION CAPF HUB

BY SWAPNIL WALUNJ

23. Vaccination involves

- (a) Injecting the body with materials that simulate the body to produce antibodies
- (b) injecting the body with materials that stimulate the body to produce antigens
- (c) the use of monoclonal antibodies to cure a disease
- (d) use of antibiotics to cure diseases

Ans = a

Explanation = Vaccination involves antibodies produced in the body against these antigen would neutralize during actual infections.

Source = 12th biology NCERT / Chapter 8= page no. = 152

24. Which of the following are examples of carnivorous plants?

- (a) Sundew, Venus fly trap, Pitcher plant
- (b) Cuscuta, Rafflesia, Mistletoe
- (c) Sandalwood, tree Broom rape, Pitcher plant
- (d) Cuscuta, Bladderwort, Mistletoe

Ans = a

Explanation = Plants living in marshy areas do not get nitrogen from the soil. Their nitrogen need is fulfilled by sucking the juice of insects. Venus flytrap, utricularia, drosera and Rafflesia are the other examples of **carnivorous plant**

Source = 7th biology NCERT / Chapter 1 = page no. = 5

MISSION CAPF HUB

**PAPER-1
TEST SERIES**

FEATURES

*one to one mentorship
discussion with toppers
fee 1199/-
contact 7057227225*

JOIN TELEGRAM NOW
t.me/MISSIONCAPFHUB

**DOWNLOAD FREE
MATERIAL FROM
TELEGRAM CHANNEL**

SCIENCE = BIOLOGY = 2015

25. Match List I with List II and select the correct answer using the code given below the lists.

List I (Scientist)	List II (Area of study)
A. JD Watson	1. Microbiology
B. Louis Pasteur	2. Taxonomy
C. Carl Linnaeus	3. Molecular Biology
D. Charles Darwin	4. Evolution

Codes

A B C D

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

Ans = c

Explanation = Darwin's theory of evolution tells us how life evolved from simple to more complex forms

Source = 10th biology NCERT / Chapter 9 = page no. = 149

26. From which among the following pairs of species, a small quantity of fine quality wool is obtained in India?

- (a) Pashmina goats and Angora rabbits
- (b) Pashmina rabbits and Angora goats
- (c) Pashmina rabbits and Angora sheep
- (d) Pashmina goats and Angora sheep

Ans = a

Explanation =

Angora wool is obtained from angora goats, found in hilly regions such as Jammu and Kashmir. Wool is also obtained from goat hair. The under fur of Kashmiri goat is soft. It is woven into fine shawls called Pashmina shawls.

Source = 7th biology NCERT / Chapter 3 = page no. = 25

MISSION CAPF HUB

BY SWAPNIL WALUNJ

MISSION CAPF HUB

By Swapnil Walunj & Team (Delhi)

PAPER - 1 TEST SERIES

FEATURES :

- Total 12 Test →
 - 4 Sectional Test
 - 2 Revisional Test
 - 6 Full length Test
- Based On Previous year's UPSC CAPF Question Papers
- Perfectly as per Demand of UPSC CAPF Exam
- Explanation PDF of every test from toppers

Under Guidance of



Amol Patil, (AIR 39)
(Asst.Comm. CISF - 2018)

Rupeshsingh Patil, (AIR 48)
(Asst.Comm. CRPF - 2017)



Haridatta Mane, (AIR 113)
(Asst.Comm. CRPF - 2017)

Swapnil Walunj
(Interview Appeared - 2018)



Why MISSION CAPF HUB ?

- Best Online Platform for CAPF
- All India Ranking
- Online Access
- Personal Mentorship
- Learn Directly from Toppers
- Exam Oriented Approach

Contact: 7057227225 Email: missioncapfhub@gmail.com @swapnil191