CSS Aspirants
Empowering Future Officers

CSS Past Papers

Subject: General Science & Ability

Year: 2019

For CSS Solved Past Papers, Date Sheet, Online Preparation, Toppers Notes and FPSC recommended Books visit our website or call us:

CSSAspirants.Pk

0336 0535622

FEDERAL PUBLIC SERVICE COMMISSION
COMPETITIVE EXAMINATION-2019
FOR RECRUITMENT TO POSTS IN BS-17
UNDER THE FEDERAL GOVE RNMENT
GENERAL KNOWLEDGE-I
(GENERAL SCIENCE & ABILITY)

Roll Number

TIME ALLOWED: THREE HOURS	PART-I (MCQS)	MAXIMUM MARKS = 20
PART-I(MCQS): MAXIMUM 30 MINUTES	PART-II	MAXIMUM MARKS = 80

NOTE: (i) Part-II is to be attempted on the separate **Answer Book.**
(ii) Attempt Only **FOUR** questions from **Part II**, by selecting **TWO** questions from **EACH SECTION**. All questions carry Equal marks.
(iii) All the parts (if any) of each Question must be attempted at one place instead of at different places.
(iv) Candidate must write Q. No. in the Answer Book in accordance with Q. No. in the Q.Paper.
(v) No Page/Space be left blank between the answers. All the blank pages of Answer Book must be crossed.
(vi) Extra attempt of any question or any part of the attempted question will not be considered.
(vii) Use of **Calculator** is **NOT** allowed.

PART – II
SECTION - I

Q.2 **(a)** Deficiency of vitamins causes different human diseases some of which are given in the table below choose the correct type of vitamin from the box and write in front of each disease. (5)

Vit. A	Vit. B1	Vit. C	Vit. D	Vit. E	Vit. K

Diseases caused duw to lack of vitaman	Name of the vitaman
1.Poor night vision	
2. Bleeding gums	
3. Rickets in children	
4. Beri-Beri	
5. Anaemia	

(b) People suffering from cardiovascular disease having high level of cholesterol in their blood, this often leads to build of fats on its internal arterial walls, suggests how this might be harmful to the heart (5)

(c) Why the excessive use of chemical fertilizers should be avoided? (5)

(d) Why are Scientists worried about the increase of CO_2 in atmosphere? (5)

Q.3 **(a)** Differentiate between the renewable and non- renewable sources of energy giving example of each one of them. (5)
(b) Give a brief account of optic fibers. What is their importance in present day telecom system? (5)
(c) What is the most dangerous part of hurricane and how do cyclone affect humans? (5)
(d) What is the difference between vaccines and Antibiotics? How do antibiotics and vaccines contribute to health? (5)

Q.4   **(a)** What is the importance of forests in the economy of a country?   (5)

   (b) Give a brief account of biotechnology.   (5)

   (c) Do the mammals always lay eggs? If yes, where in the world do they live? Write the name some of them.   (5)

   (d) How can the sun have such a strong gravitational field if its made of gases?   (5)

Q.5   **(a)** What does Ozone depletion mean and how can we protect the ozone layer?   (5)

   (b) What are the different types of a network? Explain each briefly.   (5)

   (c) Why an indiscriminate / causal use of antibiotic may prove dangerous?   (5)

   (d) Why do atoms form bonds? Name three major types of chemical bonds.   (5)

SECTION – II

Q.6   **(a)** Moiz was trying to sleep at one night but there was too much noise around him. His clock ticked every 5 seconds; a tap was dipping every seventh seconds and a pet dog snored every 12th second. He noticed on his clock that all three things happened together on the stroke of midnight. Find after how may seconds are three things happened together   (5)

   (b) One pipe can fill a pool 1.25 times as fast as second pipe. When both pipes are opened they can fill the pool in five hours. How long it will take the fill the pool if only slower pipe is used? 5

   (c) The cost of hiring a car for 2 days in 2018 was Rs.264 which was 20% more than in 2013. What was the cost of hiring a car in 2013?   (5)

   (d) What do you understand by measure central tendency? State its types.   (5)

Q.7   **(a)** Moiz and Mair share a lottery win of Rs. 2000 in the ratio of 1:4. Moiz then share this part between himself, his wife and his son.in the ratio of 4:5:1. How much more his wife gets over his son?   (5)

   (b) A farmer keeps hens and rabbits on his farm. One day he counted the total of 70 heads and 196 legs. How many more hens than rabbits does he have?   (5)

   (c) What is polygon? Describe different types of regular polygon.   (5)

   (d) In a certain code computer is written as FRUVQNPC. How will MEDICINE will be written in code language?   (5)

Q.8   **(a)** Seven Piano Students T U V W X Y & Z are given a recital and their instructor is deciding the order in which they will perform, each student will play exactly one piece, a piano solo. In deciding the order of performance the instructor must observer following restrictions.
(i) X cannot play first or second
    W cannot have played until X has played
    Neither T nor Y can play Seventh

Either Y & Z must play immediately after W

V must play immediately after, or immediately U Played

(ii) If V play first, which one of the following must be true

T plays sixth

X plays third

Z plays seventh

T plays after immediately after Y

W Plays immediately After X

(b) U = [Whole number from 10 to 24]

A = [Even Number]
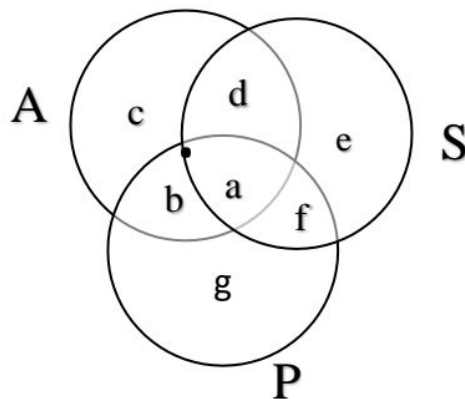
B = [Number divisible by 5]

Write down the number elements of A∩B   (5)

(c) in the following diagram A represent American, S represent scientist and P represents politicians

(i)   American those are politicians but not scientists will be.

(ii)   Scientists which are politicisms but not Americans will be

(d) Each packet of washing powder carries a token and 4 token can be exchanged for free packet, How many free packets will I receive if I buy sixty four packets?   (5)

****

Part-1 mcqs

Q.NO1

1. d ✓
2. b ✓
3. b ✗
4. b ✓

5/20

5. c ✗
6. a ✗
7. d ✗
8. c ✗
9. b ✓
10. a ✗
11. a ✗
12. b ✗
13. d ✗
14. d ✗
15. b ✓
16. c ✗
17. d ✗
18. b ✗
19. b ✗
20. c ✗

Part = 2

Section - I

Q. NO.3

(a)

Renewable energy	Non-renewable energy
Renewable energy resources refer to those source which can reproduced.	Non-renewable energy resources refer to those sources which cannot be reproduced
Renewable energy resources are environmental friendly	Harm environment
Not much costly	Costly
No side effects on the lives of humans	Non-renewable energy harms not only environment but also harms humans. CO_2, SO_2, OX_2 harm pose risks to humans

write full sentences......

3.5)

Examples include wind, solar, geo-thermal, hydro and nuclear power plants	Examples include gas, oil and coal

Figure 0.1 variation table

(a)

Understanding Optic fibers

Optic fibers refer to thin glass that carries digital information with help of light. It carries information over long distances. Thus, these entities make Optic fibers one of the advanced technologies as compare to traditional wire processes.

Components
Core

Core is made up of as thin glass as human hair. It carries information through injection of light. (By the help of light)

Outer core

It is the area above core. It is also known as cladding because this region attracts back the light.

Coating

Coating covers core and outer core against resistance.
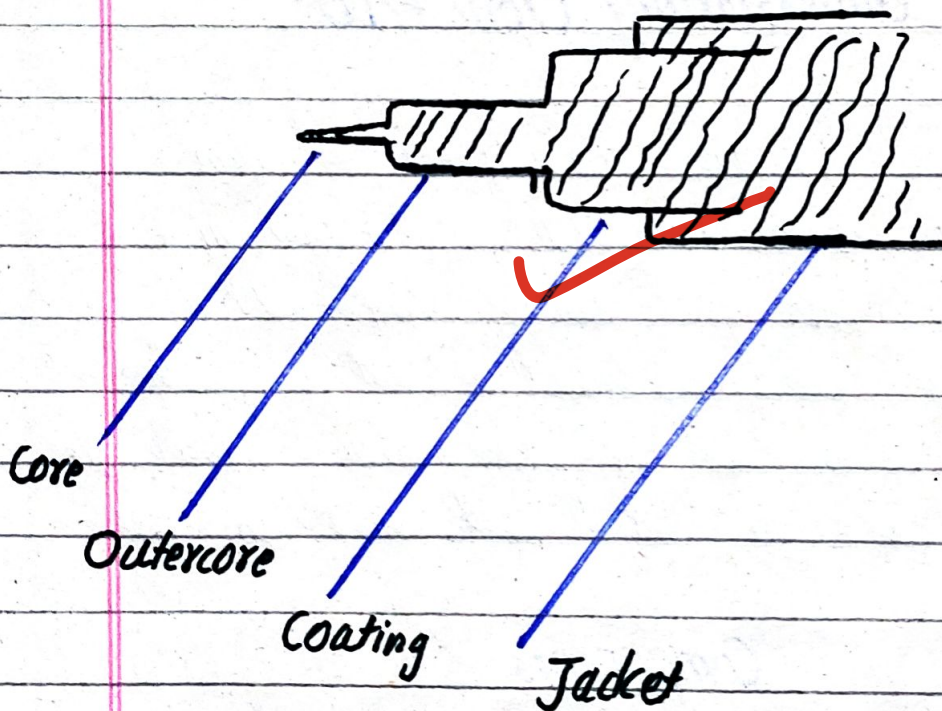

Core
Outercore
Coating
Jacket

figure 0.2 digram of Optic figure

Importance Optic fiber in present day

1. Optic fiber is a fundemental element of present day telecom
2. Faster than traditional wire system
3. Highly durable against resistance
4. Carryes information over long distances

discuss these in a bit more detail......

3

(c)

Hurricane

"Hurrican is a rotating wind formed over low pressure areas of water bodies"

(International Meterological Organization (IMO))

Dangerous part of Hurricane

Hurricane is entirely dangerous but the most dangerous part of Hurricane is core eye. Here the pressure is entirely low. It harms the existence of everything.
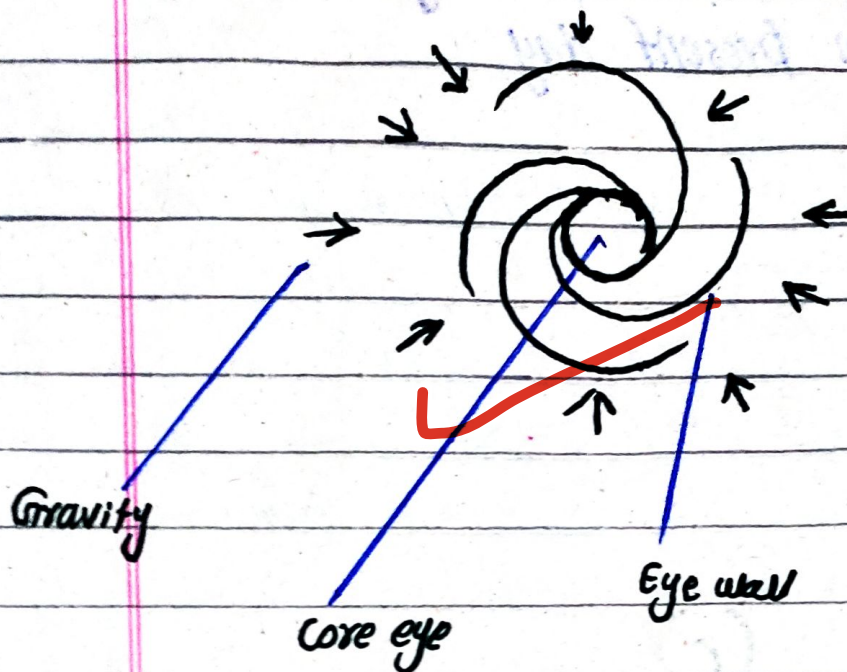
Gravity

Core eye

Eye wall

Figure 0.3   Structure   of
            Hurricane

Affects of Cyclone on humans

(1) **Causes causalties**

Cyclone causes causalties across the globe. This was how Tahypoon in 2024 in China, Mynamar and Japan killed 360 people and injured 609.

(2) **Destorys infrastructure**

Cyclone vanishes roads,

trees, homes and residential buildings.

(3) Destorys vegetations

Storms destory farms of fruits, vegetations and bring food insecurity to humans.

(4) Harms biodiversity

Cyclones destory forests, wetlands and green urban centers. These all contribute to affects on plants, animals and insects.

3.5

(5) Displaces humans

Hurricanes displace humans from their native lands, due to destruction.

(d)

Vaccines	Antibiotics
Vaccines refer to dead or inactivated organisms particularly used to boost immunity of humans.	Antibiotics refer to compounds to fight fungi and bactaria's infection
Organism	molecule
Vaccinated	Available in all its forms
Given before disease Once in life	Taken after disease Every time

It kills viruses	It kills bactaria, and fungi

Figure 0.4 variation table

Contribution of vaccines and antibiotics to humans' well- beings

Vaccines and antibiotics both combat fungi, vireuses and bactaria. They improve the immunity of individuals. Vaccines and antibiotics enable human to live long.

Q. NO.4

(a)

Importance of forests in the economy of a country

Forests are the lungs of the earth. They play a

key role in the economic growth of nations.

(1) Renewable source of wealth

Forests are renewable source of economic wealth of countries. Through timbers and bamboo sellings, nations generate tremendous incomes. This was how Food and Agriculture Org. (FAO) 2025 noted that nations earned US $ 600 through the business of timber and bamboo.

(2) Attract tourism

Forests attract tremendous tourist activities which contribute to the economic growth of nations.

(3) Source of rural communities income

Forests are the real sources of rural communities in income. They earn through selling nuts, seeds and honey of forests. These entities directly contribute to the economic growth of nations.

(4) Enhance exports of sports, medical and household or items

Forests improve the

the production of sports, medical and household materials. These entities contribute to the economic growth of nations.

(5) Generates employment

Forests generate enormous employment in security and tourist guide sectors. Thus, employment contribute to the economic stability of nations.

(b)

Understanding Biotechnology

Biotechnology is the branch of science that uses living organism, cells and biological systems to develop products and technologies that improve human life and the environment. In easy words, it means using biological processes or organism (like bacteria, plants or enzymes) to make useful things such as medicines, vaccines, crops and biofuels.
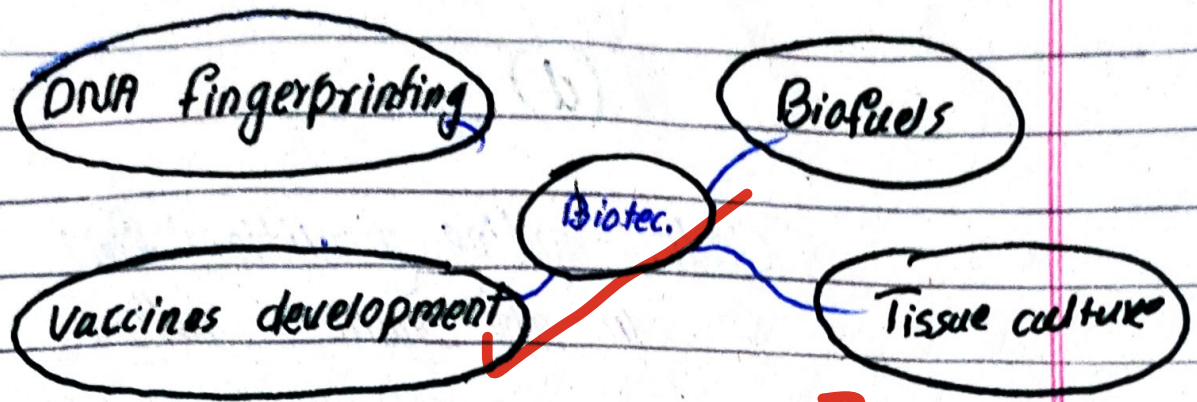
Figure 0.5 examples of biotechnology

(c)

Do mammals always lay eggs?

All types of mammals donot lay eggs. Some of its groups known as "monotremes" of the Animalia kingdom lay eggs.

Living locations

They mammals live in Australia, Tunisia and in the United kingdoms.

Names

Long duck, short duck of sir Thomes etc.

(d)

Understanding gravitional field

In the entire universe, every matter attracts the other matter. This process is known as gravitional field.

Components of gravity

Gravity has the following elements:

→ Mass
→ Distance

Strong gravitational field of Sun despite made of gases:

There is no doubt that Sun is made up of gases although it attracts the other bodies. In fact, it is not all about the gases. Gravity depends on mass. So, Sun has tremendous mass that attracts the other Objectives in our solar system.

$$\boxed{\text{Section - II}}$$

Q. NO. 7
(a)

Ratio

Sol:

Moiz and Mair $= 1 : 4 \quad \times 2000$

Finding Moiz and Mair's share

$$Moiz = \frac{1}{5} \times \overset{400}{\cancel{2000}}$$

$$Moiz = 1 \times 400 = 400 / RS$$

$$Mair = \frac{4}{5} \times \overset{400}{\cancel{2000}}$$

$$Mair = 400 \times 4 = 1600 / RS$$

Now Moiz then share his part (400 RS B/W himself, Son and wife)

moiz, wife, SON = 4:5:1 $\times$ 400

$$moiz = \frac{4}{\cancel{10}^{40}} \times \cancel{400}$$

moiz gets $40 \times 4 = 160$ / RS

$$wife \; \frac{5}{10} \times \cancel{400}^{40}$$

His wife gets $40 \times 5 = 200$ / RS

His son gets $40 \times 1 = 40$ / RS

So, his wife gets RS. 160 more over his son.