

Geography Workbook – Week 1

Topics Covered –

1. Theories of formation of Universe,
2. Latitudes and Longitudes
3. Rotation and Its Impacts
4. Revolution and Its Impacts
5. Mapping

Activity 1

Find out the following information about different planets:

Planets	Number of Moons	Rotation direction	Composed of
Mercury			
Venus			
Earth			
Mars			
Jupiter			
Saturn			
Uranus			
Neptune			

Activity 2

List the countries through which Equator passes.

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Activity 3

List the countries through which Prime Meridian passes.

Activity 4

Find the latitude and longitude of the following places

1. Bengaluru
2. Delhi
3. Hyderabad
4. Mumbai

Activity 5

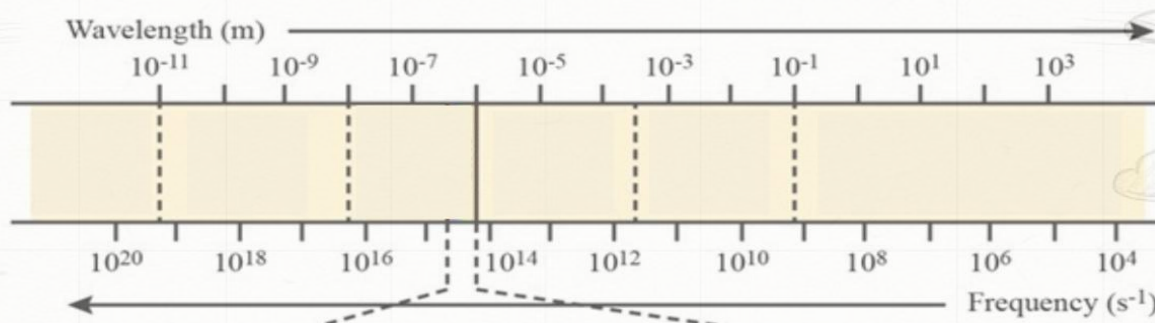
In the following map, mark the countries surrounding Caspian Sea



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Activity 6

Fill the following Electromagnetic Spectrum with name of radiations with the following – X-rays, Radio waves, Gamma rays, Infra-red, Ultra-violet, Visible light, Microwaves.



Activity 7

Find 5 interesting facts about Mariana Trench

Activity 8

Match the following:

Mid Night Sun

Equal length of Day and Night

Zero Coriolis force

Perpendicular solar radiation on 22nd December

Namibia

Nairobi

Norway

Singapore

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Activity 9

Fill the following table with respect to “Effects of Revolution”.

EVENT	SEASON	LENGTH OF DAY Vs LENGTH OF NIGHT	LENGTH OF DAY (INCREASING/ DECREASING)	MID DAY SUN (HIGH/LOW)	POSITION OF SUN	MOVEMENT OF SUN
SPRING EQUINOX						
SUMMER SOLSTICE						
AUTUMN EQUINOX						
WINTER SOLSTICE						
SPRING EQUINOX						

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Activity 10

Find the following facts and check on the map –

Country with maximum latitudinal stretch - _____

Country with maximum longitudinal stretch - _____

Country with longest international boundary - _____

Country with maximum bordering countries - _____

Practice Questions

1. Red shift of the light coming from distant galaxies indicate. [1]

- (a) Approaching galaxies
- (b) Receding galaxies
- (c) Stationary galaxies
- (d) None of the above

2. Which of the following would have happened if the earth's axis of rotation was not tilted? [4]

- 1. Seasons would not occur.
- 2. All the places on the earth would have equal length of day and night.
- 3. Coriolis Effect would not be present.

How many of the above are correct?

- (a) Only one

- (b) Only two
- (c) All three
- (d) None

3. The discovery of Cosmic Microwave Background Radiations supports which of the following theory? [1]

- (a) Static universe theory
- (b) Steady State theory
- (c) Big Bang theory
- (d) Nebular hypothesis

4. Which of the following radiations have least frequency? [1]

- (a) Gamma rays
- (b) Microwaves
- (c) X-rays
- (d) Ultraviolet

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5. Which of the following can be regarded as evidence of Big Bang theory? [1]

1. Red shift of galaxies
2. Revolution of planets around the sun
3. Ratio of Hydrogen to Helium in the universe

Select the correct code:

- (a) 1 and 2
- (b) 2 and 3
- (c) 1 and 3
- (d) 1, 2 and 3

6. Which of the following statements is/are correct regarding Cosmic Microwave Background Radiations?

1. These are considered to be remnant radiations from big bang explosion.
2. These are the radiations which lie in high frequency range of radiations.
3. These radiations fill up the space uniformly all over

Select the correct code: [1]

- (a) 1 and 2
- (b) 1 and 3
- (c) 2 and 3
- (d) 1, 2 and 3

7. Consider the following statements:

1. There is abundance of lighter elements in the universe.
2. According to big bang theory, the amount of helium is more than that of hydrogen in the universe.

Which of the statements given above is/are correct? [1]

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

8. Which of the following countries does not border Caspian Sea? [5]

- (a) Russia
- (b) Azerbaijan
- (c) Uzbekistan
- (d) Turkmenistan

9. Which of the following are the effects of rotation of Earth? [3]

1. Coriolis effect
2. Mid-night sun
3. Tides
4. Seasons
5. Day and night

Select the correct code:

- (a) 1, 2, 3 and 4
- (b) 1, 3 and 5
- (c) 1, 2 and 5
- (d) All the above

10. On which of the following dates will the South Pole experience sunrise? [4]

- (a) 21st June
- (b) 23rd September
- (c) 22nd December
- (d) 21st March

11. Which of the following are included under 'Inner planets'? [1]

1. Mercury
2. Earth
3. Mars
4. Jupiter

Select the correct code:

- (a) 1 and 2 only

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(b) 1, 2 and 3 only

(c) 1, 2, 3 and 4

(d) 1 and 3 only

12. Which of the following statements is/are correct? [1]

1. Mercury as well as Venus does not have any natural satellites.
2. Amongst Inner planets, Earth has largest radius.

Select the correct code:

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

13. A place is located on Antarctic circle. On what date will the place experience complete darkness for 24 hours? [4]

(a) 21st June

(b) 23rd September

(c) 22nd December

(d) 21st March

14. Which of the following statements is/are correct regarding Big Bang Theory?

1. The Big Bang explosion happened around 13.7 billion years ago.
2. The temperature of the universe has been increasing from the time of Big Bang

Select the correct code: [1]

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

15. Which of the following has not been correctly matched?

1. Nebular Hypothesis – Laplace

2. Interstellar dust hypothesis – Otto Schmidt

3. Tidal Hypothesis – Immanuel Kant

Select the correct code: [1]

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

16. Arrange the following Geological periods from past to present:

1. Tertiary

2. Carboniferous

3. Cretaceous

Select the correct code: [1]

(a) 1 – 2 – 3

(b) 2 – 1 – 3

(c) 3 – 2 – 1

(d) 2 – 3 – 1

17. With reference to earth axis, consider the following statements:

- (1) The axis of earth makes an angle of 66.5 degrees with its orbital plane.
- (2) The inclined axis of earth leads to unequal duration of day over different places of the earth.

Select the correct code: [4]

(a) 1 only

(b) 2 only

(c) Both 1 & 2

(d) Neither 1 nor 2

18. With reference to revolution of Earth, consider the following statements:

1. The earth moves in an elliptical orbit around the sun.

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2. The revolution of earth leads to changes in season.

Which of the statements given above is/are correct? **[4]**

- (a) 1 only
- (b) 2 only
- (c) Both 1 & 2
- (d) Neither 1 nor 2

19. Which of the following is not a great circle on the globe? **[2]**

- (a) Equator
- (b) Prime meridian line
- (c) 60-degree East longitude
- (d) 60- degree North latitude

20. The Prime Meridian passes through

- 1. Algeria
- 2. France
- 3. Nigeria
- 4. Portugal

Use the code below to select the correct answer. Code: **[5]**

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

21. Which of the following statements about latitude is false? **[2]**

- (a) Latitude lines run parallel to each other.
- (b) The North Pole has a latitude of 90° N
- (c) The latitude of a location determines its distance from the Equator.
- (d) Lines of latitude are also referred to as meridians.

22. Which one of the following Straits is nearest to the International Date Line? **[3]**

- (a) Malacca Strait
- (b) Bering Strait
- (c) Strait of Florida
- (d) Strait of Gibraltar

23. A plane starts flying from 30-degree northern latitude and 50-degree eastern longitude and lands at the opposite end of the earth, where will it land? **[3]**

- (a) 30-degree North latitude, 50-degree West longitude
- (b) 30-degree South latitude, 50-degree West longitude
- (c) 50-degree North latitude, 30-degree West longitude
- (d) 30-degree South latitude, 130 degree West longitude

24. The Tropic of Cancer does not pass through: **[5]**

- (a) Egypt
- (b) India
- (c) Iran
- (d) Myanmar

25. When the people in India are having their morning tea (7 am), the people at a certain location X are having their lunch (12 pm). At what longitude 'X' is located, if the earth's rotation speed has doubled? **[3]**

- (a) 150° East
- (b) 127.5° East
- (c) 127.5° West
- (d) 82.5° West

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Instructions: Fill the circles completely using a blue or black ballpoint pen.

- Q01 ☐ A ☐ B ☐ C ☐ D
- Q02 ☐ A ☐ B ☐ C ☐ D
- Q03 ☐ A ☐ B ☐ C ☐ D
- Q04 ☐ A ☐ B ☐ C ☐ D
- Q05 ☐ A ☐ B ☐ C ☐ D
- Q06 ☐ A ☐ B ☐ C ☐ D
- Q07 ☐ A ☐ B ☐ C ☐ D
- Q08 ☐ A ☐ B ☐ C ☐ D
- Q09 ☐ A ☐ B ☐ C ☐ D

- Q10 ☐ A ☐ B ☐ C ☐ D
- Q11 ☐ A ☐ B ☐ C ☐ D
- Q12 ☐ A ☐ B ☐ C ☐ D
- Q13 ☐ A ☐ B ☐ C ☐ D
- Q14 ☐ A ☐ B ☐ C ☐ D
- Q15 ☐ A ☐ B ☐ C ☐ D
- Q16 ☐ A ☐ B ☐ C ☐ D
- Q17 ☐ A ☐ B ☐ C ☐ D

- Q18 ☐ A ☐ B ☐ C ☐ D
- Q19 ☐ A ☐ B ☐ C ☐ D
- Q20 ☐ A ☐ B ☐ C ☐ D
- Q21 ☐ A ☐ B ☐ C ☐ D
- Q22 ☐ A ☐ B ☐ C ☐ D
- Q23 ☐ A ☐ B ☐ C ☐ D
- Q24 ☐ A ☐ B ☐ C ☐ D
- Q25 ☐ A ☐ B ☐ C ☐ D

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What Did I Learn This Week?

★ One fact I found fascinating... (Write something that surprised or amazed you)

- Why did it stand out to me?

- How can I connect this to a real-world example or current affairs?

? One concept I still want clarity on... (Write any topic you're still confused about)

- What exactly confuses me about it?
- What will I do to resolve this confusion?
 - ☐ Revisit class notes
 - ☐ Ask a doubt in class
 - ☐ Watch a video/diagram explanation
 - ☐ Solve related PYQs

☼ How well did I understand this week's topics?

Code	Concept	My Understanding	My Score
1	Theories of formation of Universe	☐ Excellent ☐ Good ☐ Needs Revision	/ 11
2	Grid System	☐ Excellent ☐ Good ☐ Needs Revision	/ 2
3	Rotation & its Impact	☐ Excellent ☐ Good ☐ Needs Revision	/ 4
4	Revolution & Impact	☐ Excellent ☐ Good ☐ Needs Revision	/ 5
5	Mapping	☐ Excellent ☐ Good ☐ Needs Revision	/ 3