

JB ACADEMY, AYODHYA
ANNUAL EXAMINATION 2022-23
CLASS XI, GEOGRAPHY (029)

Time: 3hours

Max. Marks 70

GENERAL INSTRUCTIONS-

Question paper is divided into 3 Sections – A, B and C.

1. *In Section A, question numbers 1 to 15 are Objective type Multiple choice questions carrying 1 mark each. Attempt any 14 questions. Write the correct answer only in your answer sheets.*
2. *In Section B, Question numbers 16 and 17 are Short Source Based or Graph Based questions respectively carrying 3 marks each. Answer any three questions out of 4. Each of these sub-questions carry 1 mark*
3. *In Section C, Question numbers 18 to 22 are short answer questions carrying 3 marks each. Answers to these questions should not exceed 60-80 words.*
4. *In Section C, Question numbers 23 to 27 are long answer questions carrying 5 marks each. Answers to these questions should not exceed 120-150 words.*
5. *Question numbers 28 and 29 are related to location and labeling and Identification of geographical features on maps respectively, carrying 5 marks each.*
6. *Outline map of India and World provided to you must be attached with your answer book.*
7. *Use of template or stencils for drawing outline maps is allowed.*

SECTION- A

Fill in the blanks-

1. The largest intrusive feature is..... 1
a. Dike b. Sill c. Laccolith d. batholith
2. Which of the following facts was not considered while discussing the concept of ocean floor spreading? 1
a. Volcanic activity along mid oceanic ridge
b. Stripes of Normal and reverse magnetic field observed in rocks of ocean floor
c. Distribution of fossils in different continents
d. Age of rocks from the ocean floor
3. Which of the following is degradation process 1
a. Deposition b. Diastrophism c. Exfoliation d. Diastrophism
4. What will be the parent material for black soil? 1
a. Igneous rock c. Metamorphic rocks
b. Sedimentary rocks d. None of these
5. In which of the following cities days are longest? 1
a. Chandigarh b. Thiruvananthapuram c. Hyderabad d. Bhopal

6. The atmosphere is mainly heated by the 1
- a. Short wave solar radiation c. Reflected solar radiation
- b. Long wave terrestrial radiation d. Scattered solar radiation
7. Salinity in ocean increases while going..... 1
- a. Upward b. Leeward c. Downward d. None of these
8. Lansdown is located in..... 1
- a. Himachal Pradesh
- b. Leh
- c. Uttarakhand
- d. Jammu & Kashmir
9. Which river forms dendritic pattern? 1
- a. Tapti
- b. Ganga
- c. Brahmaputra
- d. Narmada
10. Match list 1 with list 2 1
- | COLUMN 1 (River system) | | | | COLUMN 2 (Tributary/Distributary) |
|-------------------------|------------|----|-----|-----------------------------------|
| I. | Chenab | | | 1. Ganga river system |
| II. | Bhagirathi | | | 2. Indus river system |
| III. | Penganga | | | 3. Brahmaputra river system |
| IV. | Lohit | | | 4. Godavari river system |
| Codes: | I | II | III | IV |
| (a) | 1 | 2 | 3 | 4 |
| (b) | 2 | 1 | 4 | 3 |
| (c) | 3 | 4 | 2 | 1 |
| (d) | 1 | 3 | 2 | 4 |
11. Ganga get polluted by cultural pollution at..... 1
- a. Kanpur b. Patna c. Varanasi d. Rishikesh
12. Maximum rainfall received by India is..... 1
- a. Cyclonic rainfall c. Orographic rainfall
- b. Convectional rainfall d. None of these
13. ENSO is..... 1
- a. East North South Oscillation c. La Nina southern Oscillation
- b. El Nino Southern Oscillation d. None of these
14. Karewa is known for..... 1
- a. Zaree b. Zaffran c. Za'atar d. Zedoary
15. Arrange the following states in their correct order according to the amount of rainfall. 1
1. Kerala
2. Bihar
3. West Bengal
4. Haryana
- a) 2, 3, 1, 4
- b) 1, 2, 3, 4
- c) 1, 3, 2, 4
- d) 3, 2, 1, 4

16. Read the Case Study given below and answer the questions that follow:

Barcelona trees tempering the Mediterranean city climate, Spain Barcelona's main climate change challenges include temperature rise, a decrease in rainfall and an increase in extreme events such as droughts and heat waves. The high urban density of Barcelona can exacerbate the heat island effect. Barcelona has committed to becoming a global model of a sustainable city in response to the urban development challenges related to climate change. For many years, Barcelona has had a focus on planting and managing trees. Trees can moderate the urban climate by cooling it in two different ways. Reflection of sunlight and transpiration by the leaves lower the air temperature, and shade reduces the surface temperature and protects people from the sun, especially during the hottest months. Furthermore, trees can prevent local flooding by helping to reduce the amount of storm water runoff. Besides climate-related benefits, city trees can also provide co-benefits: removing air pollutants, storing carbon, reducing noise pollution, regulating humidity and balancing the water cycle, creating ecological connectivity, providing habitat for urban biodiversity and creating a pleasant urban landscape

Barcelona's Green Infrastructure and Biodiversity Plan 2020 (BGIBP) seeks to connect various areas of the city with green infrastructure. In line with the BGIBP goals, identifies a number of actions to expand tree coverage and improve the climate resilience of the urban trees Barcelona's Tree Master Plan for 2017-37. These actions include the selection of tree species that are more resilient to water and heat stresses, diversification of tree species, increased use of runoff water for watering trees, automatic irrigation and control of water leaks. While Barcelona has a relatively small amount of green space per inhabitant, it has more street trees than most European cities. The estimated budget of the Tree Master Plan is EUR 9.6 million/year, of which EUR 8.3 million/year is already available for tree management. The difference of EUR 1.3 million/year relates to investments that will be needed for improved soil and water management.

- a. Barcelona hasclimate.
 - i. Cold temperate subtropical climate
 - ii. Tropical climate
 - iii. Warm temperate subtropical climate
 - iv. None of these
- b. Actions to expand tree coverage and improve the climate resilience of the urban trees was under.....
 - i. Barcelona's Green Infrastructure and Biodiversity Plan 2021
 - ii. Barcelona's Tree Master Plan for 2017-73
 - iii. Barcelona's Tree Master Plan for 2017-37
 - iv. Barcelona's Green Infrastructure and Biodiversity Plan 2020
- c. The high urban density of Barcelona can exacerbate the
 - i. continental effect
 - ii. heat island effect
 - iii. Flood
 - iv. Epidemic
- d. Barcelona's Green Infrastructure and Biodiversity Plan 2020 (BGIBP) seeks to connect various areas of the
 - i. city with concrete infrastructure
 - ii. city with green infrastructure
 - iii. city with water channels
 - iv. All of these

17. Read the article and answer the following questions:

The Sun has always fascinated astronomers. And now, a new development has baffled scientists. A huge part of the Sun broke off of its surface and created a tornado-like swirl around its North Pole. Though scientists are trying to analyze how this occurred, the video of the development has stunned the space community. The remarkable phenomenon was caught by NASA's James Webb telescope and shared on Twitter by Dr Tamitha Skov, a space weather forecaster, last week. The Sun keeps emitting solar flares (called prominence) that sometimes affect communications on Earth, hence scientists are more concerned about the latest development.

"Talk about Polar Vortex! Material from a northern prominence just broke away from the main filament & is now circulating in a massive polar vortex around the north pole of our Star. Implications for understanding the Sun's atmospheric dynamics above 55 degrees here cannot be overstated!"

Dr Skov said in a tweet last week. Talk about Polar Vortex! Material from a northern prominence just broke away from the main filament & is now circulating in a massive polar vortex around the north pole of our Star. Implications for understanding the Sun's atmospheric dynamics above 55° here cannot be overstated!

According to NASA, the prominence is a large bright feature extending outward from the Sun's surface. There have been several such instances in the past but this one has stumped the scientific community. "More observations of the #SolarPolarVortex reveal it took roughly 8 hours for material to circumnavigate the pole at approximately 60 degree latitude. This means an upper bound in the estimation of horizontal wind speed in this event is 96 kilometers per second or 60 miles a second!" Dr Skov said in a subsequent tweet.

Solar physicist Scott McIntosh of the US National Centre for Atmospheric Research, who has been observing the Sun for decades, told that he had never seen a "vortex" like the one that occurred when a piece of the prominence broke away and was whipped into the solar atmosphere. Space scientists are now analyzing the strange event to gather more details about it and present a clearer picture. Though our favourite star is monitored round-the-clock, it keeps throwing surprises, like the multiple powerful flares this month that disrupted communication on Earth.

Answer any three questions (1X3=3)

What is the full form of NASA

National Aeronautical and space administration

National Aeronautics and space administration

iii. National Automatic and space administration

iv. National Automation and space administration

b. What is Polar vortex

i. The polar vortex is a low pressure area—a wide expanse of swirling cold air—that is parked in polar regions.

ii. The polar vortex is a low pressure area—a wide expanse of swirling hot air—that is parked in polar regions.

- iii. The polar vortex is a high pressure area—a wide expanse of swirling cold air—that is parked in polar regions
- iv. The polar vortex is a high pressure area—a wide expanse of swirling hot air—that is parked in polar regions.
- c. More observations of the Solar Polar Vortex reveal it took roughly 8 hours for material to circumnavigate the pole at
- approximately 80° degree latitude
 - approximately 90° degree latitude
 - approximately 190° degree latitude
 - approximately 60° degree latitude
- d. Solar physicist....., who has been observing the Sun for decades.
- Scott McIntosh of the US National Centre for Atmosphere Research
 - Scott McIntosh of the US National Centre for Atmospheric Research
 - Scott MacIntosh of the US National Centre for Atmospheric Research
 - Scott McIntosh of the US National Centre for Atmospheric Research

SECTION C (SHORT ANSWER & LONG ANSWER QUESTIONS)

18. Name the countries which shares its boundaries with India, while going eastward along Himalayan range. 3

OR

Why Himalaya is called *Geoenvironmental divide*?

19. What is the magic behind Dead Sea? Reveal the fact about its name. 3

20. Describe *Ganga gram pariyojna*. 3

21. How are tides important for navigation? 3

OR

What are waves and from where do they get their energy?

22. Define any three drainage pattern with help of diagram. 3

23. Explain types of tides. (diagram) 5

24. Discuss the variation in the distribution of solar insolation over the earth surface. Draw neat and well labeled diagram. 5

OR

Isotherms do not show the correct temperature of a place. Discuss.

25. Explain advancing and retreating monsoon. 5

OR

Discuss El-NINO effect.

26. Explain extra tropical cyclone. 5

27. Describe the characteristics of any 5 major ocean currents. 5

MAP BASED QUESTIONS

28. On the given map of India, locate and label any five of the following: 1x5=5

1. Nagaland
2. Sikkim
3. Kerala
4. Telangana
5. Jharkhand
6. Aravali range
7. Central highland

29. With the help of the following key, identify the areas marked as A, B, C, D and E on the given outline map of World. Write the correct name of the place in the blank space given on the map. 1x5=5

- (i) Labrador current
- (ii) Alaska current
- (iii) Kuroshio current
- (iv) High saline region
- (v) Ring of fire
- (vi) Hawaii hot spot
- (vii) Caribbean plate

Name.....Roll No.....



Name.....Roll No.....

