Time: 2:00 hrs   Full Marks: 100
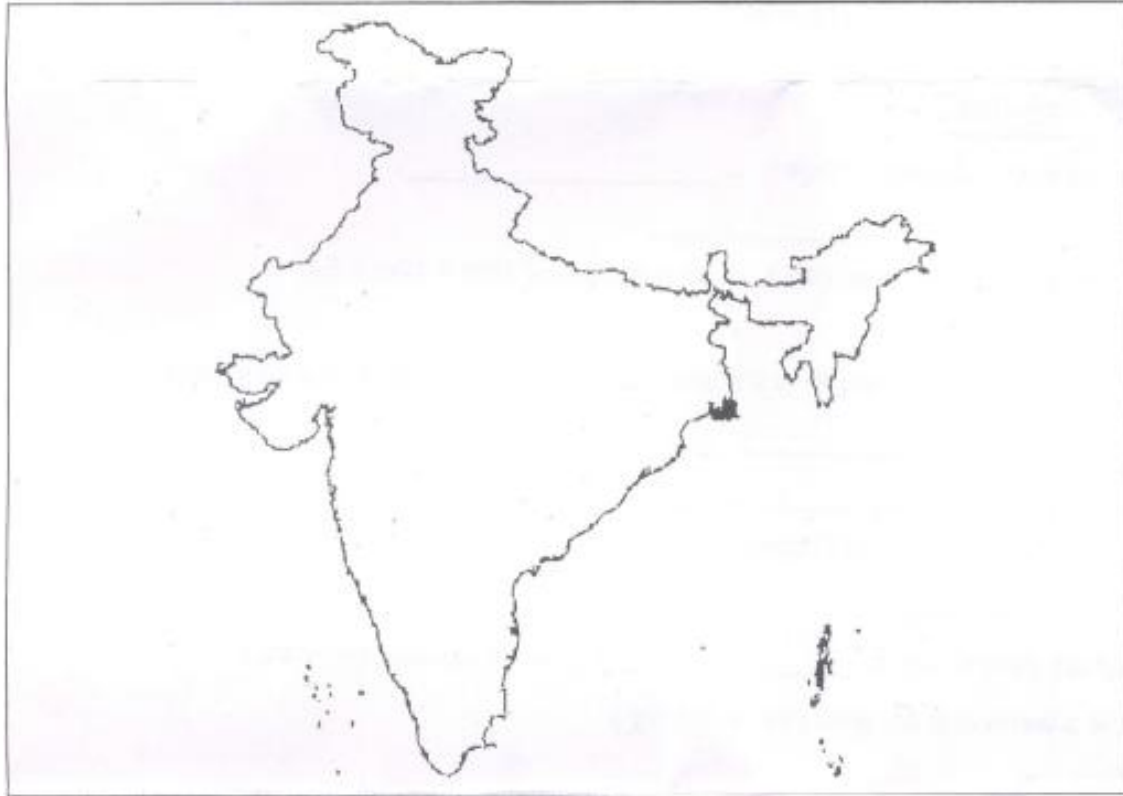

Group A : Compulsory Questions

1. On the given outlines map (রেখা মানচিত্রে) of India, mark, shade and name (চিহ্নিত করো, শেড দাও এবং নাম লেখ) the following: 5×**2 = 10**

    a. A horst (স্তুপ পর্বত) between two rift valleys   b. A diamond mining centre (হীরের খনি)

    c. One oilseed producing (তৈলবীজ উৎপাদক) region   d. Malwa Plateau (মালব মালভূমি)

    e. Two Natural Harbours (স্বাভাবিক পোতাশ্রয়) - one at western coast (পশ্চিম উপকূল) and one at eastern coast (পূর্ব উপকূল)

2. Practical Geography:

a. Draw conventional symbols (প্রচলিত প্রতীক চিহ্ন) of the following: **5**

    i) Spur and valley (স্পার এবং উপত্যকা)   ii) Broad-gauge (double) and meter gauge (double) railway line

    iii) Well and Pond   iv) Metalled and unmetalled road (পাকা এবং কাঁচা রাস্তা)   v) PTO and RF

b. Represent the following data with suitable diagram / graph. Identify the area with such climatic characteristics.   **5**

Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperature (^{o}C)	24.5	25.7	27.7	30.4	33.0	32.5	31.0	30.2	29.8	28.0	25.9	24.7
Rainfall (cm)	4.6	1.3	1.3	1.8	3.8	4.5	8.7	11.3	11.9	30.6	35.0	13.9

Group B: **Tick** the Correct Option (√) or **Fill** in the Blanks (Answer **any Twenty**):   **20×2 = 40**

1. The scale of a Mouza Map is _____

2. The R.F. of a Topographical Map having sheet number 72 is _____ and of 72D is _____

3. Absolute Humidity (পরম আর্দ্রতা) is expressed in _____

4. 'Geo' is a feature (ভূমিরূপ) of glacier/ wave/wind action.

5. The direction of wind around a low pressure (নিম্নচাপ) in the northern hemisphere (উত্তর গোলার্ধ) is clockwise / anti-clockwise / parallel to isobars (সমপ্রেষ রেখা).

6. The Conrad Discontinuity (বিযুক্তি) lies between _____ and _____

7. Helium / Nitrogen / Carbon dioxide gas is transparent (স্বচ্ছ) to incoming solar radiation and opaque (অস্বচ্ছ) to outgoing terrestrial radiation (পার্থিব বিকিরণ).

8. In case of a closed fold (বদ্ধ ভাঁজ), the amount of interior angle between two limbs is <30° / 30° - 60° / >60°.

9. According to the Richter Scale, an earthquake of 8 intensity (তীব্রতা) is 10 / 100 / 1000 times more powerful than an earthquake of 5 intensity.

10. The R.F. is 1:50,000. In statement (বিবৃতিমূলক) scale, it is - 1cm to 0.55km / 1cm to 0.50km / 1cm to 5.5km.

11. Present Headquarter of the Survey of India (S.O.I.) is situated in _____

12. Kanha is famous (বিখ্যাত) for _____ while Bhitarkanika is famous for _____

13. The most abundant element in the Earth's crust is _____

14. Between a square of perimeter 88cm and a circle of circumference 88cm, which figure has larger area and by how much?
    Circle by 132 cm^2 / Square by 132 cm^2 / both have equal area

15. Feldspar / Quarts / Corundum - which one is the hardest mineral?

16. Rock glacier / peneplain / talu-slope is a landform resulting from the free fall of rock materials.

17. Bhor Ghat gap gives access to the railway link between - Mumbai and Jalgaon / Mumbai and Pune / Cochin and Coimbatore.

18. The Albatross Plateau is located in the Pacific Ocean / Atlantic Ocean / Indian Ocean.

19. Knickpoints are best associated with waterfalls and rapids / meanders / oxbow lakes.

20. PMGSY stands for _____

21. If a car tyre is 70cm in diameter, the wheel turns _____ times per minute if the car maintains a constant speed of 70km/hr.

22. _____ is called as the 'Cottonopolis of India'.

23. The carbon content (কার্বনের পরিমাণ) in lignite coal is 45-70% / 70-90% / 60-80%.

24. The most commonly spoken language in eastern Africa is - Zulu / Swahili / Afrikaans.

25. The Australian Dingo is a herbivore (তৃণভোজী) / carnivore (মাংসাশী) / omnivore (সর্বভূক).

26. Arrange from high to low wavelengths: Visible rays, Ultraviolet rays, Gamma rays, Radio waves
    _____

27. One-third / Half / Two-third of the Thar Desert lies in Rajasthan.

28. Bhumij / Bhil / Kheria is not an inhabitant of Jangalmahal.

29. The present sex ratio (লিঙ্গহার) in India (2011) is 927 / 93 / 940.

30. A 125m long train is running at 45km/hr. In how much time will it cross a tunnel of 375m in length?
    a. 40 sec   b. 16 sec   c. 15 sec   d. None of the above

Group C: Long answer type question   **10×4 = 40**

1. Compulsory Question (To be answered in **English** only)   **10**
    "Geography as subject Geography is a fine combination of Physical and Social Science" - Explain.

2. Answer any 3 (three) questions from the following: **3×10 = 30**

A. Explain how gravity of the Earth is related to latitude, altitude and depth.

B. "The need for conserving rainwater is increasing day by day" - Elucidate (ব্যাখ্যা কর) the statement.

C. Explain with diagrams, the stages (পর্যায়) and associated landforms (ভূমিরূপ) of an ideal river (আদর্শ নদী) in the light of Davis' Concept.

D. a. Explain the mechanism of:
        i) Red colour of the twilight sky
        ii) Vertical alignment of a bar magnet at the North Pole

   b. Three lamp posts named A, B and C are of uneven height and are situated 30 m apart equally, in a straight line and on perfectly even ground. The angle of depression form top of B (height 30 m) to the top of A is 30°, while the angle of depression from the top of B to the top of C is 60°. Find the angle of depression if an observer views the top of lamp post C from the top of lamp post A.

E. Describe with examples how natural vegetation (স্বাভাবিক উদ্ভিদ) of different regions responds to climatic variations (জলবায়ুর বৈচিত্র্য).

F. Discuss the merits and demerits of canal irrigation (জলসেচ) with respect to India.