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(Write Roll Number from left side exactly as in the Admit Card)

Signature of Invigilators

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**1315**

Question Booklet Series

**A**

**PAPER-III**

Question Booklet No.

**Subject Code : 13**

OMR Sheet No. ....

(To be filled by the candidate)

**GEOGRAPHY**

Time : 2 Hours 30 Minutes

Maximum Marks: 150

**Instructions for the Candidates**

1. Write your Roll Number in the space provided on the top of this page as well as on the OMR Sheet provided.
2. At the commencement of the examination, the question booklet will be given to you. In the first 5 minutes, you are requested to open the booklet and verify it:
  - (i) To have access to the Question Booklet, tear off the paper seal on the edge of this cover page.
  - (ii) Faulty booklet, if detected, should be got replaced immediately by a correct booklet from the invigilator within the period of 5 minutes. Afterwards, neither the Question Booklet will be replaced nor any extra time will be given.
  - (iii) After this verification is over, the Question Booklet Series and Question Booklet Number should be entered on the OMR Sheet and the OMR Sheet Number should be entered on this Question Booklet.
3. This paper consists of seventy-five (75) multiple-choice type questions. All the questions are compulsory. Each question carries *two* marks.
4. Each Question has four alternative responses marked: **(A) (B) (C) (D)**. You have to darken the circle as indicated below on the correct response against each question.

*Example:* **(A) (B) (C) (D)**, where **(C)** is the correct response.
5. Your responses to the questions are to be indicated correctly in the OMR Sheet. If you mark your response at any place other than in the circle in the OMR Sheet, it will not be evaluated.
6. Rough work is to be done at the end of this booklet.
7. If you write your Name, Roll Number, Phone Number or put any mark on any part of the OMR Sheet, except for the space allotted for the relevant entries, which may disclose your identity, or use abusive language or employ any other unfair means, such as change of response by scratching or using white fluid, you will render yourself liable to disqualification.
8. Do not tamper or fold the OMR Sheet in any way. If you do so, your OMR Sheet will not be evaluated.
9. You have to return the Original OMR Sheet to the invigilator at the end of the examination compulsorily and must not carry it with you outside the Examination Hall. You are, however, allowed to carry question booklet and duplicate copy of OMR Sheet after completion of examination.
10. **Use only Blue/Black Ball point pen.**
11. **Use of any calculator or log table or mobile phone etc. is strictly prohibited.**
12. **There are no negative marks for incorrect answers.**

[ Please Turn Over ]



## GEOGRAPHY

## PAPER III

1. In oceans floors, a fracture zone is
  - (A) continuation of an inactive conservative plate boundary.
  - (B) a transform fault formed between two spreading axes.
  - (C) a normal fault developed due to tensional forces close to mid oceanic rise.
  - (D) a reverse fault formed close to subduction plate margin.
2. The statement that best satisfies the condition of geomorphic threshold is
  - (A) a riverbank is so undercut that it collapses.
  - (B) a lamppost becomes inclined due to soil creep.
  - (C) a lava field becomes so vegetated that biological weathering starts.
  - (D) an earthquake initiates and a hillslope begins to shake.
3. In slope replacement model, it is proposed that
  - (A) river-borne materials bury the original slope and form new slope angle.
  - (B) weathered materials from upper slope buries lower slope and form new slope angle.
  - (C) weathered materials of lower slope deforms *in-situ* and form new slope angle.
  - (D) weathered materials from upper slope wash into streams and form new slope angle.
4. A flow is termed 'critical' when
  - (A) water moves at the same velocity as that of surface waves.
  - (B) water moves at a higher velocity as that of surface waves.
  - (C) water moves at a lower velocity as that of surface waves.
  - (D) water moves at 1.5-times faster than that of surface waves.
5. *Assertion (A)* : In rectangular drainage pattern both the main stream and its tributaries display right-angle bends.  
*Reason (R)* : The rectangular drainage pattern is controlled by joint or fault systems of the underlying rocks.  
 Codes:  
 (A) Both (A) and (R) are correct, but (R) is not the correct explanation of (A)  
 (B) Both (A) and (R) are correct and (R) is the correct explanation of (A)  
 (C) (A) is true, but (R) is false  
 (D) (A) is false, but (R) is true
6. Rhythmic beach features like cusps and horns are evolved by
  - (A) Storm surges
  - (B) Dissipative waves, mainly during storms
  - (C) Wave-generated currents, like the rips
  - (D) Coastal cells
7. Tafonis are common features in
  - (A) Glacier sidewalls
  - (B) Arid coastal localities
  - (C) Humid and sub-humid tropics
  - (D) Tundra environment
8. *Assertion (A)* : The temperature in the southern hemisphere is considerably lower than that in the northern hemisphere.  
*Reason (R)* : The large mass of ice-covered Antarctic continent is an important source of cold in the southern hemisphere.  
 Codes:  
 (A) Both (A) and (R) are true, but (R) is the correct explanation of (A)  
 (B) Both (A) and (R) true and (R) is not a correct explanation of (A)  
 (C) (A) is true, but (R) is false  
 (D) (A) is false, but (R) is true

[ Please Turn Over ]

- 9. Assertion (A)** : The decrease of temperature with increasing altitudes in the atmosphere is called vertical temperature gradient.

**Reason (R)** : Temperature decrease with increasing altitude is due to radiation and latent heat of condensation.

Codes:

- (A) Both (A) and (R) are correct, but (R) is the correct explanation of (A)  
 (B) Both (A) and (R) are correct and (R) is not the correct explanation of (A)  
 (C) (A) is correct, but (R) is false  
 (D) (A) is false, but (R) is correct

**10.** Which among the following is/are the major factor/factors responsible for the monsoon type of climate in India?

1. Location
2. Thermal contrast
3. Upper air circulation
4. Inter-tropical convergence zone

Select the correct answer from the codes given below:

- (A) 1 only  
 (B) 1, 2, 3 and 4  
 (C) 2, 3 and 4  
 (D) 2 and 3

**11.** Match *List-I* with *List-II* and select the correct answer using the codes given below the lists:

<i>List-I</i>	<i>List-II</i>
(a) Cirrus	1. Rain giving
(b) Stratus	2. Feathery appearance
(c) Nimbus	3. Vertically growing
(d) Cumulus	4. Horizontally spreading

Codes:

	(a)	(b)	(c)	(d)
(A)	2	1	4	3
(B)	3	4	1	2
(C)	2	4	1	3
(D)	3	1	4	2

**12.** Match *List-I* with *List-II* and select correct answer by using the codes given below the lists:

<i>List-I</i>	<i>List-II</i>
(a) Typhoon	1. India
(b) Willy Willy	2. China
(c) Hurricane	3. Australia
(d) Tropical Cyclone	4. USA

Codes:

	(a)	(b)	(c)	(d)
(A)	1	4	2	3
(B)	1	2	3	4
(C)	4	1	3	2
(D)	2	3	4	1

**13.** The most plausible explanation for the location of the Thar desert in north-western India is

- (A) the obstruction caused by the Aravallis to the rain-bearing wind that proceeds to the Ganga valley.  
 (B) the evaporation of moisture by heat.  
 (C) the absence of mountains to the north of Rajasthan to cause orographic rainfall in it.  
 (D) that the moisture carried by the south-west monsoon is driven away by the dry upper air current.

**14.** Which of the following statement is *not* correct?

- (A) Four gases—nitrogen, oxygen, argon and carbon dioxide amount for more than 99% of dry air.  
 (B) Ozone is produced by the recombination of oxygen by the influence of ultraviolet radiation at high altitude to form three atom molecules.  
 (C) Variations in the proportion of water vapour in air are major concern of meteorology and climatology.  
 (D) Carbon dioxide and water vapour increase with altitude.

**15.** 'Marine snow' refers to

- (A) Arctic ocean ice cap  
 (B) Calcium carbonate compensation depth  
 (C) Accumulation of foams in Sargasso Sea  
 (D) Atoll beaches

**16.** Which among the following statements correctly represents property of seawater?

- (A) Density increases with increasing salinity, increasing pressure and decreasing temperature.
- (B) Density decreases with increasing salinity, increasing pressure and decreasing temperature.
- (C) Density increases with decreasing salinity, increasing pressure and decreasing temperature.
- (D) Density decreases with decreasing salinity, increasing pressure and decreasing temperature.

**17.** To get a reliable trend of sea level change from a given tide gauging station, the span of minimum continuous record required is

- (A) 10 years
- (B) 25 years
- (C) 50 years
- (D) 75 years

**18.** Match *List-I* with *List-II* and select the correct answer using the codes given below the lists:

*List-I*

*List-II*

- |                   |                      |
|-------------------|----------------------|
| (a) Selvas        | 1. Tropophytes       |
| (b) Savanna       | 2. Mosses & Lichers  |
| (c) Monsoon Lands | 3. Epiphytes         |
| (d) Tundra        | 4. Grasses and trees |

Codes:

- |     | (a) | (b) | (c) | (d) |
|-----|-----|-----|-----|-----|
| (A) | 3   | 2   | 1   | 4   |
| (B) | 1   | 4   | 3   | 2   |
| (C) | 1   | 2   | 3   | 4   |
| (D) | 3   | 4   | 1   | 2   |

**19.** The roles of decomposers in tropical rainforests are to

- 1. spread diseases to check the population size of tribal groups.
- 2. break down litter for nutrient cycling.
- 3. perform as a medium for nitrogen fixation from the atmosphere to the soil.
- 4. absorb energy from the soil to facilitate energy flow of the ecosystem.

Select correct answer from codes given below:

- (A) 1 and 3
- (B) 1 and 4
- (C) 2 and 3
- (D) 2 and 4

**20.** Which of the following leaf modifications occur in the desert areas to inhibit water loss?

- 1. Hard and waxy leaves
- 2. Tiny leaves or no leaves
- 3. Drip-tip leaves
- 4. Thorn instead of leaves

Select correct answer from codes given below:

- (A) 1, 2 and 3
- (B) 1, 2 and 4
- (C) 1 and 4
- (D) 2 and 3

**21.** Which of the following may result from a rise in global temperature?

- 1. a rise in sea level
- 2. a retreat of the snowline
- 3. abnormal biological cycles of organisms
- 4. an extreme climate change

Select correct answer from codes given below:

- (A) 1, 2, 3 and 4
- (B) 1, 3 and 4
- (C) 1 and 3 only
- (D) 2 and 4 only

**22.** The mean Net Primary Production (NPP) per unit ( $\text{kg/m}^2/\text{yr}^{-1}$ ) is the maximum in

- (A) Tropical rain forest
- (B) Temperature deciduous
- (C) Coral reefs
- (D) Estuaries

**23.** Who first provided a philosophical base to Geography?

- (A) Plato
- (B) Kant
- (C) Strabo
- (D) Aristotle

**24.** In India, university-level teaching of geography started first at

- (A) Aligarh Muslim University
- (B) Benaras Hindu University
- (C) University of Calcutta
- (D) University of Madras

25. One of the oldest Asian work of geographical importance, *The Tribute of Yu* is in  
 (A) Chinese  
 (B) Japanese  
 (C) Korean  
 (D) Tibetan
26. Yi-Fu Tuan's major contribution is in the field of  
 (A) Behavioural geography  
 (B) Humanistic geography  
 (C) Positivist geography  
 (D) Radical geography
27. The author of a famous early work *Guide to Geography* was  
 (A) Eratosthenes  
 (B) Hipparchus  
 (C) Ptolemy  
 (D) Strabo
28. Which of the following statements are true about 'geography'?  
 (i) A term coined by J. K. Wright.  
 (ii) It refers to a reverential attitude to and caring for the Earth.  
 (A) 'i' only  
 (B) 'ii' only  
 (C) Both 'i' and 'ii'  
 (D) None of the above
29. The idea of paradigm shift in Geography is based on which of the following works?  
 (A) *The Structure of Scientific Revolutions* – Kuhn  
 (B) *The Nature of Geography* – Hartshorne  
 (C) *Explanation in Geography* – Harvey  
 (D) *Being and Time* – Heidegger
30. The major factors affecting birth rate in a country are  
 (A) Demographic structure, Diets and Health, Education and Social Customs  
 (B) Politics, Occupation, Social Class and Demographic structure  
 (C) Social Customs, Education, Medicine and Occupation  
 (D) Demographic structure, Social Class, Occupation and Education
31. A Neanderthal man is  
 (A) Primitive form of *Homo sapien*  
 (B) Primitive form of *Homo erectus*  
 (C) A form of *Homo habilis*  
 (D) ancestral form of *Ramapithecus*
32. The actual number of live births per 1000 women in the fecund range refers to  
 (A) Total fertility rate  
 (B) Fecundity  
 (C) General fertility rate  
 (D) Crude birth rate
33. What term is used for scattered population with a common origin?  
 (A) Refugee  
 (B) Migrant  
 (C) Expatriation  
 (D) Diaspora
34. Demographic features of developing countries are  
 (A) high infant mortality, low fertility, young age distribution and uneven population growth.  
 (B) high fertility, high density, high mortality rate and young age distribution.  
 (C) high fertility, falling mortality rate, moderate population growth and young age distribution.  
 (D) high density, high mortality, uneven population growth and very old age distribution.
35. Which one of the following reasons for counter urbanisation is incorrect?  
 (A) The effect of economic recession on rural-urban and return migration.  
 (B) The success of explicitly spatial government policies.  
 (C) The increase in the stock of potential outmigrants living in rural areas.  
 (D) The emergence of scale diseconomies and social problems in large cities.

36. In migration analysis, the social distance does *not* take into account

- (A) level and type of information possessed by interacting units.
- (B) binding force of cultural patterns.
- (C) linkage among social and economic roles.
- (D) superiority of one intervening unit over other units.

37. In Gravity-Potential Model, the potential at a point of population concentration is not expressed by

- (A) measure of the proximity of people to that point.
- (B) measure of aggregate accessibility.
- (C) measure of influence of people at a distance.
- (D) measure of interaction of people among the settlements.

38. A large business organisation that owns or controls production of goods and services in one or more countries other than their home country is called

- (A) Transnational corporation
- (B) Stateless corporation
- (C) Multinational corporation
- (D) All of the above

39. The full form of WIPO is

- (A) World Intellectual Property Organisation
- (B) World Industrial Promotion Organisation
- (C) World Institutional Policy Organisation
- (D) World Industrial Policy Organisation

40. The set of criteria adopted by Hartshorne and Dickens for demarcation of agricultural regions did not include

- (A) percentage of agricultural land under cultivation.
- (B) association of crops.
- (C) number of cattle per square mile.
- (D) number of cultivator families per square mile.

41. *Assertion (A)* : Agriculture in Monsoon Asia is characterised by the predominance of food crop cultivation.

*Reason (R)* : Farming in Monsoon Asia is mainly meant for subsistence purpose.

Select correct answer from the codes given below:

- (A) Both (A) and (R) are individually true and (R) is the correct explanation of (A)
- (B) Both (A) and (R) are individually true, but (R) is not the correct explanation of (A)
- (C) (A) is true, but (R) is false
- (D) (A) is false, but (R) is true

42. A 'Leading Industry' should have the following characteristics.

- (A) It is a relatively new and dynamic industry with an advanced level of technology.
- (B) It is labour intensive and has a strong regional base.
- (C) It has high income elasticity of demand for its products.
- (D) It has strong inter-industry linkage with other sectors.

Which of the above characteristics is *not* true?

43. Match the industries by their types

Type	Industry
(a) Heavy Industry	1. Bakery Industry
(b) Light Industry	2. Insurance Industry
(c) Tertiary Industry	3. Ship Building Industry
(d) Footloose Industry	4. Precision Electronics Industry

Codes:

	(a)	(b)	(c)	(d)
(A)	3	1	2	4
(B)	2	3	1	4
(C)	1	4	2	3
(D)	1	2	3	4

44. The Suez Canal, Strait of Hormuz and the Strait of Gibraltar are important because they

- (A) prevent attacks on bordering nations.
- (B) control access to vital trade routes.
- (C) limit Russian access to warm water ports.
- (D) prohibit the movement of ships carrying nuclear weapons.

[ Please Turn Over ]

45. The Iceberg transport cost model was put forward by  
 (A) Paul Krugman  
 (B) Paul Samuelson  
 (C) Phillip Mc Cann  
 (D) Jean-Paul Rodrigue
46. Territorial claims on a neighbour are called  
 (A) Irredenta  
 (B) Redenta  
 (C) Denta  
 (D) Semanta
47. Who is given credit of laying down the foundation of nation-state concept?  
 (A) Crookes  
 (B) Bonaparte  
 (C) Rousseau  
 (D) D'Azeoglio
48. Who coined the term *lebensraum*?  
 (A) Kjellen  
 (B) Mackinder  
 (C) Haushofer  
 (D) Ratzel
49. Hearth of Buddhism is  
 (A) Bodh Gaya  
 (B) Lumbini  
 (C) Sarnath  
 (D) Shravasti
50. Lingua Franca is  
 (A) First language  
 (B) Second language  
 (C) Third language  
 (D) Fourth language
51. Which of the following are correct matches?  
 (i) Apatanis                      Arunachal Pradesh  
 (ii) Meenas                      Rajasthan  
 (iii) Tharus                      Himachal Pradesh  
 (iv) Khasis                      Meghalaya  
 (A) (i) only  
 (B) (i), and (iv) only  
 (C) (i), (ii) and (iii)  
 (D) (i), (ii) and (iv)
52. Meinig's (1965) study of the Great Basin of Utah is about  
 (A) Bohra culture area  
 (B) Bahai culture area  
 (C) Mormon culture area  
 (D) None of the above
53. Awadhi is the dominant dialect of  
 (A) Eastern Uttar Pradesh  
 (B) Central Uttar Pradesh  
 (C) Western Uttar Pradesh  
 (D) Western Bihar
54. For identification of backward areas, the Planning Commission of India appointed a committee after the name of its chairman as  
 (A) B. R. Mehta Committee  
 (B) C. H. Hanumanth Rao Committee  
 (C) V. M. Dandekar Committee  
 (D) B. D. Pande Committee
55. The National Rural Employment Programme of 1980-81 was redesigned from an earlier programme named as  
 (A) Rural Works Programme  
 (B) Crash Scheme for Rural Employment  
 (C) Drought Prone Area Programme  
 (D) Food for Work Programme
56. In the Globalisation process concerning India and developed countries, the basic objective not agreed upon between the parties is  
 (A) Free flow of capital  
 (B) Free flow of technology  
 (C) Free flow of labour  
 (D) Free flow of raw materials
57. The characteristic *not* relevant for conceptualization of Planning Region is  
 (A) neither too big nor too small a size.  
 (B) flexibility of its boundaries.  
 (C) spatial discontinuity.  
 (D) administrative convenience.



58. Match the following:

<i>List-I</i> (Geographer/ Regional Planner)	<i>List-II</i> (No. of Macro) Regions Identified
(a) C. S. Chandrashekar	1. 11
(b) P. Sengupta	2. 15
(c) V. Nath	3. 19
(d) V.L.S. Prakasa Rao and L. S. Bhat	4. 13

Codes:

	(a)	(b)	(c)	(d)
(A)	1	2	3	4
(B)	4	3	2	1
(C)	3	4	1	2
(D)	2	3	4	1

59. The non-economic concept of 'Social Capital' was formally defined by

- (A) Malecki
- (B) Putnam
- (C) Coleman
- (D) Fukuyama

60. The economies that are not available in the area constituting the growth pole of a region are

- (A) economies internal to a firm.
- (B) economies external to the firm but internal to the region.
- (C) economies internal to the industry but external to the region.
- (D) economies external to the industry but internal to the firm.

61. Consider the following statements and select the correct answer using the code given below:

- (1) Briawali (Bikaner) recorded the highest temperature in India.
- (2) Dras (Kargil-Ladakh) recorded the lowest temperature in India
- (3) Mawsynram records the highest amount of rainfall in India.
- (4) K<sup>2</sup> is the highest peak of India.

Code:

- (A) 1, 2, and 3 are correct
- (B) 1, 2, and 4 are correct
- (C) 1, 3, and 4 are correct
- (D) All of the above are correct

62. In India, deciduous forests are found in the areas

- (A) where 700–1000 mm rainfall occurs.
- (B) where 1500–10,000 mm rainfall, occurs.
- (C) where less than 500 mm rainfall occurs.
- (D) None of the above

63. Give the sequential order to the following coastal regions in an anticlockwise direction.

- 1. Malabar
- 2. Konkan
- 3. North Circars
- 4. Coramandal

- (A) 2, 1, 4, 3
- (B) 1, 2, 3, 4
- (C) 3, 4, 2, 1
- (D) 4, 3, 2, 1

64. Which of the following states of India is passing through the stage of Demographic Transition which entails low fertility and low mortality?

- (A) Assam
- (B) Haryana
- (C) Punjab
- (D) Tamil Nadu

65. Which one of the following is a 'Formal Region'?

- (A) Delhi metropolitan region
- (B) Hyderabad-Secunderabad
- (C) Delhi-Jaipur-Agra Triangle
- (D) Damodar Valley

66. Assertion (A) : In India agriculture is a gamble on monsoon.

Reason (R) : The variability of rainfall is more than 10 per cent over the greater parts of India.

Codes:

- (A) Both (A) and (R) are true but (R) is the correct explanation of (A)
- (B) Both (A) and (R) are true and (R) is not the correct explanation of (A)
- (C) (A) is true, but (R) is false
- (D) (A) is false, but (R) is true

[ Please Turn Over ]

**67.** Which of the following is not the part of great plains?

- (A) Punjab-Haryana plain
- (B) Marusthali and Bagar areas of Rajasthan
- (C) The Brahmaputra Valley of Assam
- (D) The lowland of Chambal basin of M. P.

**68.** In metric topographic maps, the expression  $4r$  represents

- (A) one-quarter of RF
- (B) relative height of 4 m
- (C) four roads (unmetalled)
- (D) road distance of 4 km

**69.** In remote sensing, the expression ' $2^8$ ' is commonly associated with

- (A) Spatial resolution
- (B) Radiometric resolution
- (C) Spectral resolution
- (D) Temporal resolution

**70.** The date 17 March, 1988 is important in Indian remote sensing because it was

- (A) the launch date of IRS-1A satellite.
- (B) the establishment date of ISRO.
- (C) the establishment date of NRSC.
- (D) the launch date of first rocket from Sriharikota.

**71.** In satellite multispectral data, the ideal band for land-water discrimination is

- (A) Blue
- (B) Blue-green
- (C) NIR
- (D) Thermal

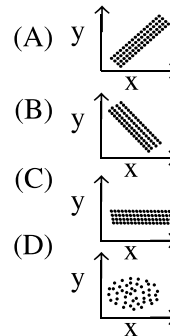
**72.** In supervised classification of satellite data, 'training area' refers to

- (A) a zone where ground truth verification needs to be done.
- (B) a zone where ground truth verification is complete.
- (C) a zone where land use or land cover is certainly known with or without ground truth verification.
- (D) a zone where pixel characteristics are certainly known with or without ground truth verification.

**73.** Which among the following shows positive  $g_2$  in a Kurtosis?

- (A) Mesokurtic
- (B) Leptokurtic
- (C) Platykurtic
- (D) None of the above

**74.** Negative correlation is represented by which of the following diagrams?



**75.** In which sampling method each member of the population has the same probability of being included in the sample?

- (A) Probability sampling
- (B) Random sampling
- (C) Purposive random sampling
- (D) Purposive probability sampling

**ROUGH WORK**

**ROUGH WORK**