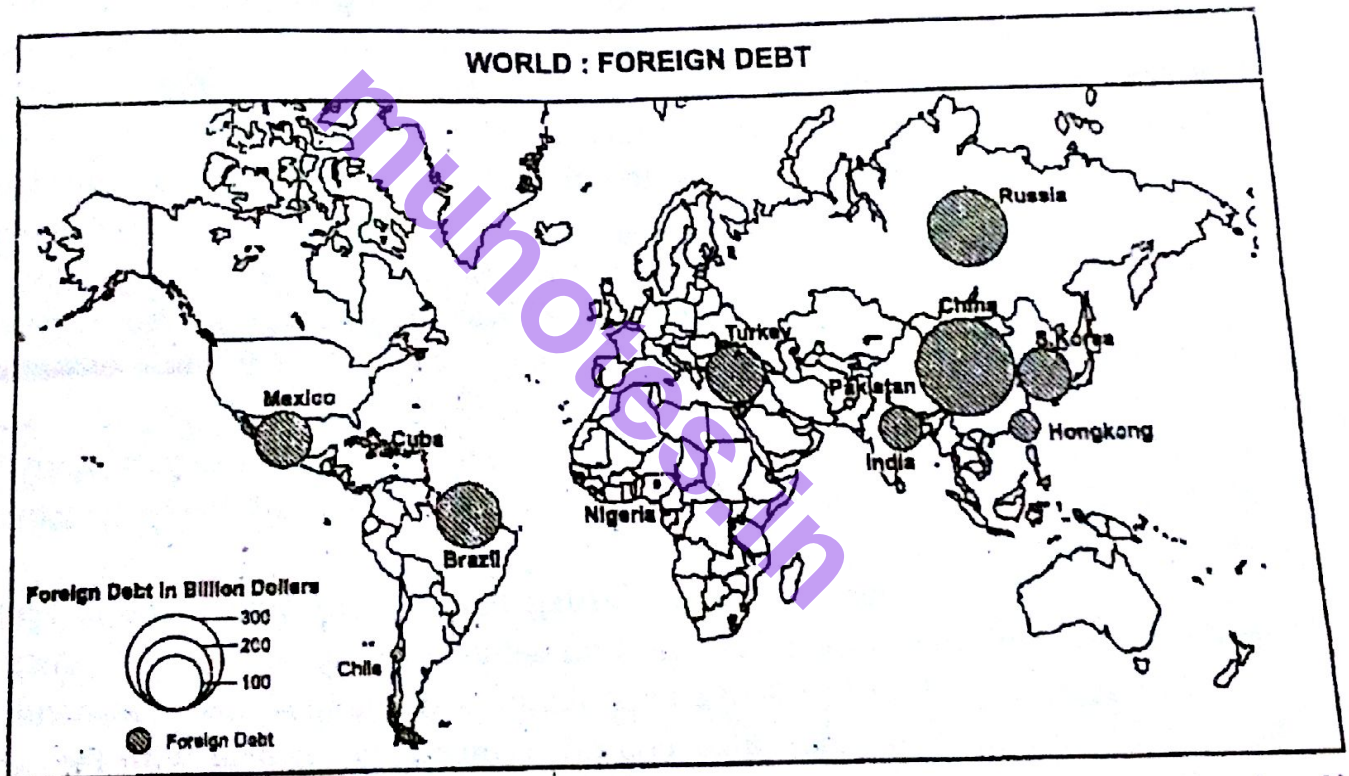


- N.B. :** (1) Question Nos. 1, 2 and 3 of Section I and Question Nos. 7, 8 and 9 of Section II are compulsory.
- (2) Attempt any one question from question Nos. 4, 5 and 6 of Section I and any one question from Question Nos. 10, 11 and 12 from Section II.

Section I

1. (a) Study the world map given below and answer the following questions :-
- What is the theme of this map ?
 - Name the cartographic technique used in this map.
 - State the amount of foreign debt of Mexico, India and Hongkong.

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- (b) Mark and name of the following in the world map (Refer Page No. 7) :-
- Major rice and wheat producing countries
 - Desert in Africa
 - Pacific Ocean
 - Any two hill stations
 - Any two developed countries.

2. Write short notes (any three) :-

- (a) Nitrogen cycle
- (b) Solar energy
- (c) Producers
- (d) Optimum Population
- (e) Importance of forest
- (f) Human resource.

3. Read the case study and answer the associated questions.

Rising waters may leave Mumbai at sea

A recent study has warned that the predicted sea level rise of 50 cm by 2050 could prove seriously damaging for Mumbai. The research, carried out by Alex De Sherbinin and two other scholars, suggest that storm surges, coupled with a rise of 50 cm in the sea level, will render coastal and low-lying areas uninhabitable.

The researchers claimed that Mumbai vulnerability to climate extremes such as storms playing up in tandem with the sea level rise was higher because of the poor drainage system and the fact that the city lies in a flood-prone region.

According to the researchers, the city's location on several seismic faults as well as its unsanitary methods of disposing raw sewage and industrial waste into the water and air surrounding it adds to the risk. They warned that the susceptible railways system would need to be elevated and the drainage system upgraded in order to reduce the threat from the rising sea. They noted that while projects were underway to upgrade the drains running alongside the rail lines, they had not been designed keeping in mind the sea level rise. The team cited another study which showed that among all the coastal cities Mumbai was most likely to experience damage because of a rise in sea level.

Moreover, the report said, with shifting likely in the subsurface of reclaimed lands, many buildings might become uninhabitable due to structural instability.

Mumbai, with almost 55% of its population residing in slums, is also vulnerable because of lack of dykes and other coastal 'armaments' to deal with the sea level rise. The study says the overall vulnerability of the city remains high and it will find it hard to cope with flooding and sub-surface shifting of reclaimed and landfilled areas despite the fact it has a resilient unofficial social response to crisis and a non-elaborate disaster management plan.

Questions :

- (a) What will be impact of climate change on coastal low lying areas in Mumbai? Why ?
- (b) Why is Mumbai likely to become vulnerable to climate change ?
- (c) What were the flaws in planning which made Mumbai vulnerable to storms?
- (d) What are the suggestions made by the researchers to reduce vulnerability of Mumbai to storm water ?

4. (a) Write note on 'Ecosystem'.
(b) Explain carbon cycle.
5. (a) 'Conservation of resources is essential'. Explain.
(b) Explain Fund resources.
6. (a) 'Poverty is a major problem.' Explain.
(b) Explain the concept of 'Malnutrition'.

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Section II

7. (a) Mark and name the following in the outline map of Mumbai (Refer Page No. 8):- 5
(i) Churchgate to Andheri railway route (ii) Sahar (iii) Kanheri Caves.
(iv) Elephanta (v) Haji ali (vi) Thane Creek.
(b) Mark and name the following in the outline map of Konkan (Refer Page No. 8) :- 5
(i) Mumbai Suburban district (ii) Amboli Ghat (iii) Konkan railway from Ratnagiri to Kudal (iv) Raigad district (v) N.H. No. 17 (vi) Thane City.
8. Write short notes (any three) :- 15
(a) Flood (b) Modes of transport (c) Desertification (d) Cyclones (e) Dot map
(f) New tourism.
9. Read the case study and answer the associated questions :-

Villages to get climate managers

The battle against climate change is all set to go down to every village in the country. In a bid to create awareness about global warming, the government has decided to train and appoint "Climate managers" in villages whose main task will be to create awareness and take steps for sustainable development at the grassroots level. Besides, they will be trained to handle natural disasters and prepare their areas to face such crises. Three agencies have been tasked with implementing the project-the ministries of panchayati raj and science and technology and the chair sustainable development at the Indira Gandhi National Open University (Ignou).

The programme was aimed at meeting the challenges of climate change and sustainable development. "People at the grassroots will be the first to bear the brunt of climate change. So, we have decided to train people in villages to be climate managers. "The task of managing climate change will be customized as per local needs. A man and a woman climate manager from each gram sabha will be trained in the science and art of managing climate change and enhance their capacity to cope with natural calamities."

Questions :

- (a) Why did the Government decided to appoint climate managers in every village?
- (b) What will be the main task of the climate managers ?
- (c) Name the agencies which will shoulder the responsibility of training climate managers?
- (d) Suppose you are a climate manager in coastal village in Konkan. How will you plan your programme to overcome climate change ?

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10. (a) 'India is an ideal country for the development of tourism.' Explain.
 (b) State the various problems related to tourism.
11. (a) Explain the causes and effects of man-made disasters.
 (b) Write note on 'Earthquakes'.
12. (a) Explain the impact of tourism on Environment.
 (b) Write note on 'Acid rain'.

(मराठी रूपांतर)

(३ तास)

[एकूण गुण]

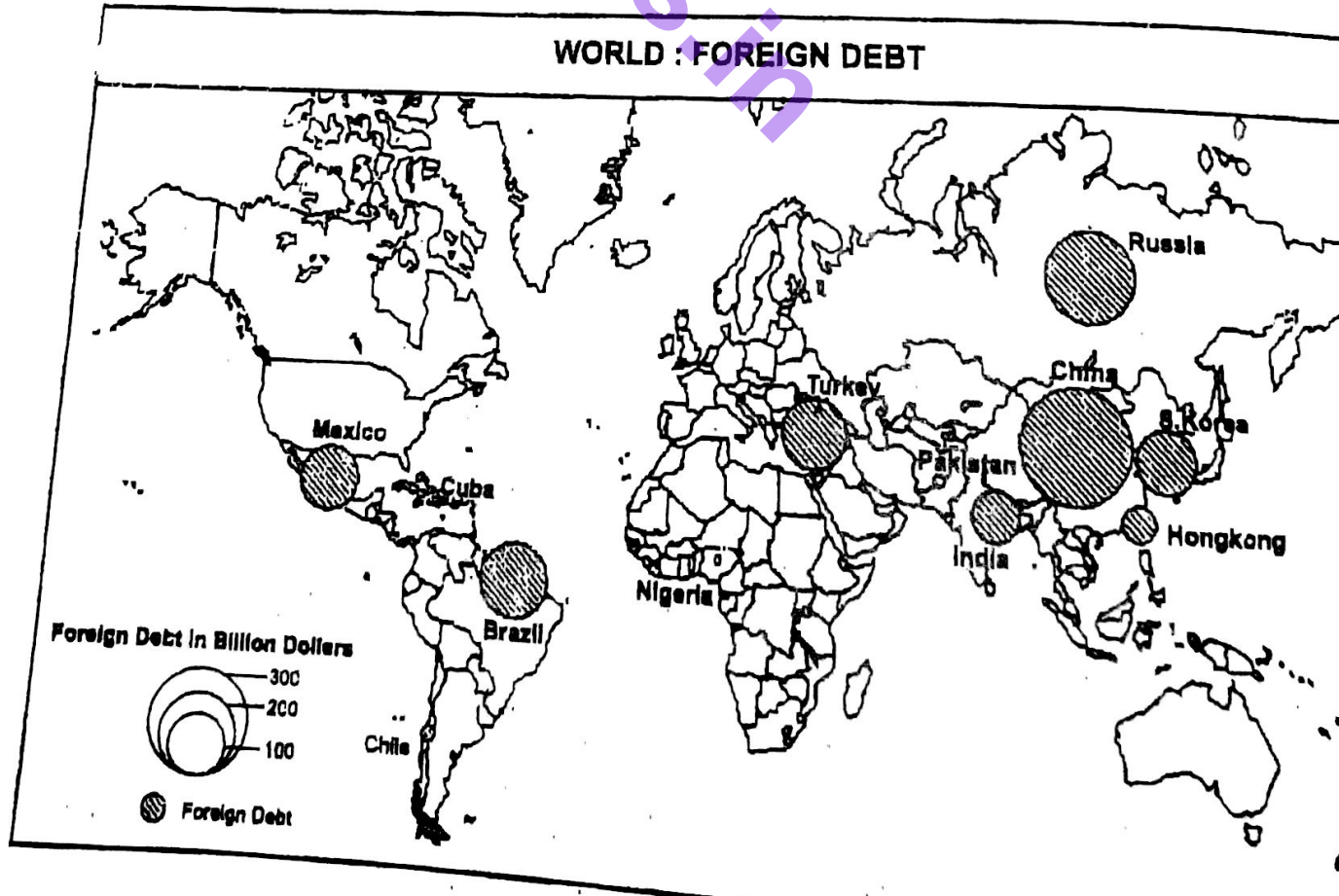
सूचना : (१) विभाग १ मधील प्रश्न क्रमांक १, २ आणि ३ व विभाग २ मधील प्रश्न क्रमांक ७, ८ अनिवार्य आहेत.

(२) विभाग १ मधील प्रश्न क्रमांक ४, ५ आणि ६ पैकी कोणताही एक व विभाग २ मधील प्रश्न क्रमांक ९, १० पैकी कोणताही एक प्रश्न सोडवा.

विभाग १

१. (अ) तुम्हाला दिलेल्या जगाच्या नकाशाचा अभ्यास करून खालील प्रश्नांची उत्तरे लिहा :-

- (१) नकाशाचा विषय कोणता आहे ?
 (२) नकाशात कोणत्या नकाशाच्या शास्त्रीय तंत्राच वापर केला आहे ?
 (३) मेक्सिको, भारत व हॉंगकाँग यांच्या परकीय कर्जाची रक्कम सांगा.



(ब) जगाच्या नकाशात पुढील घटक दाखवून नावे द्या (नकाशा पान क्र. ७ वर पहा) :-

- (१) प्रमुख भात (तांदूळ) व गहू उत्पादक देश
- (२) अफ्रिकेतील वाळवंट
- (३) प्रशांत महासागर
- (४) कोणतीही दोन थंड हवेची ठिकाणे
- (५) कोणतेही दोन विकसित देश.

टिपा द्या (कोणत्याही तीन) :-

- (अ) नायट्रोजन चक्र (ब) सौर ऊर्जा (क) उत्पादक (ड) पर्याप्त लोकसंख्या (इ) वनांचे महत्त्व
- (फ) मानवी साधनसंपत्ती

पुढील प्रश्न घटना अभ्यास (Case Study) वरचे आहेत (घटना अभ्यासासाठी-Case Study कृपया इंग्रजी प्रश्नपत्रिका पहावी) :-

- (अ) हवामान बदलाचा मुंबईच्या किनाऱ्यावरील सखल प्रदेशात कोणता परिणाम होईल ? का ?
- (ब) हवामान बदलाचा फटका मुंबईला बसण्याची शक्यता का आहे ?
- (क) नियोजनातील कोणत्या त्रुटीमुळे मुंबईला वादळाचा धोका संभवतो ?
- (ड) मुंबईचा वादळाच्या-पुराच्या पाण्यापासून बचाव करण्यास तज्ञांनी कोणत्या सूचना केल्या आहेत ?

(अ) परिसंस्थेवर टीप तिहा.

(ब) कार्बन-चक्र स्पष्ट करा.

(अ) 'साधनसंपत्तीचे संवर्धन आवश्यक आहे'. स्पष्ट करा.

(ब) अप्रवाही साधनसंपत्तीचे स्पष्टीकरण द्या.

(अ) 'दारिद्र्य ही प्रमुख समस्या आहे'. स्पष्ट करा.

(ब) 'कुपोषणाची' संकल्पना स्पष्ट करा.

विभाग २

(अ) मुंबईच्या नकाशात पुढील घटक दाखवून नावे द्या (नकाशा पान क्र. ८ वर पहा) :-

- (१) चर्चगेट ते अंधेरी लोहमार्ग (२) सहार (३) कान्हेरी केव्हज (गुफा) (४) एलिफंटा
- (५) हाजी अली (६) ठाणे खाडी.

(ब) कोंकणच्या नकाशात पुढील घटक दाखवून नावे द्या (नकाशा पान क्र. ८ वर पहा) :-

- (१) मुंबई उपनगर जिल्हा (२) आंबोली घाट (३) रत्नागिरी ते कुडाळ कोंकण रेल्वे
- (४) रायगड जिल्हा (५) राष्ट्रीय महामार्ग क्र. १७ (६) ठाणे शहर.

टिपा द्या (कोणत्याही तीन) :-

- (अ) पूर (ब) वाहतूक प्रकार (क) वाळवंटीकरण (ड) आवर्त/वादळ (इ) टिंबाचा नकाशा
- (फ) नवे पर्यटन.

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९. पुढील प्रश्न घटना अभ्यास (Case Study) वरचे आहेत. (घटना अभ्यासासाठी - Case Study - कृपया प्रश्नपत्रिका पहावी) :-

- (अ) प्रत्येक गावात हवामान व्यवस्थापक नेमण्याचे सरकारने का ठरविले ?
- (ब) हवामान व्यवस्थापकाचे प्रमुख कार्य कोणते असेल ?
- (क) हवामान व्यवस्थापकाला प्रशिक्षण देऊ शकणाऱ्या संस्थांची नावे द्या.
- (ड) समजा, तुम्ही कोंकण किनारपट्टीवरील खेड्यातील हवामान व्यवस्थापक आहात. हवामान बदलत करण्यासाठी तुम्ही कोणत्या कार्यक्रमांची आखणी (नियोजन) कराल ?

१०. (अ) 'पर्यटनाच्या विकासासाठी भारत योग्य देश आहे'. स्पष्ट करा.
(ब) पर्यटनाशी संबंधित विविध समस्या सांगा.

११. (अ) मानवनिर्मित आपत्तींची कारणे व परिणाम सांगा.
(ब) भूकंपावर टीप द्या.

१२. (अ) पर्यटनाचा पर्यावरणावरील परिणाम स्पष्ट करा.
(ब) आम्सल पर्जन्यावर टीप द्या.

