

Q31. Which one of the following can extinguish fire more quickly?

- (a) Cold water
- (b) Boiling water
- (c) Hot water
- (d) Ice

Q32. In which of the following, heat loss is primarily not due to convection?

- (a) Boiling water
- (b) Land and sea breeze
- (c) Circulation of air around blast furnace
- (d) Heating of glass surface of a bulb due to current in filament

Q33. Which one of the following features is an indication for modification of stem of a plant?

- (a) Presence of 'eye' on potato
- (b) 'Scale' found in onion
- (c) 'Tendrils' found in pea
- (d) 'Hair' present in carrot

Q34. Which of the following roles is/are played by epididymis, vas deferens, seminal vesicles and prostate in male reproductive system of human?

- (a) Spermatogenesis and maturation of sperms
- (b) Maturation and motility of sperms
- (c) Spermatogenesis and motility of sperms
- (d) Motility of sperms only

Q35. Which one of the following is the special type of milk produced by a lactating mother, essential for the development of immune response of newborn baby in human?

- (a) Breast produced after a month of childbirth
- (b) Transitional milk
- (c) Colostrum
- (d) Mineralized milk

Q36. Which one of the following statements explains higher mutation rate and faster evolution found in RNA virus?

- (a) RNA is relatively unstable compared to DNA.
- (b) Virus can multiply only within the living cell of a host.
- (c) Metabolic processes are absent in virus.
- (d) Virus can remain latent for a long period.

Q37. Which one of the following is the correct ascending sequence of States with regard to percentage of urban population (2011)?

- (a) Tamil Nadu—Mizoram—Goa—Maharashtra
- (b) Goa—Mizoram—Maharashtra—Kerala
- (c) Maharashtra—Kerala—Mizoram—Goa
- (d) Mizoram—Goa—Maharashtra—Kerala

Q38. Which one of the following places does not fall on leeward slope?

- (a) Pune
- (b) Bengaluru
- (c) Leh
- (d) Mangaluru

Q39. South Arcot and Ramanathapuram receive over 50 percent of their annual rainfall from which one of the following?

- (a) South-west monsoon
- (b) North-east monsoon
- (c) Bay of Bengal branch of summer monsoon
- (d) Western disturbances

Q40. The Eight Degree Channel separates which of the following?

- (a) India from Sri Lanka
- (b) Lakshadweep from Maldives
- (c) Andaman from Nicobar Islands
- (d) Indira Point from Indonesia

Q41. Match List-I with List-II and select the correct answer using the code given below the Lists:

List-I (Classification of Town)	List-II (Example)
A. Industrial Town	1. Vishakhapatnam
B. Transport Town	2. Bhilai
C. Mining Town	3. Singrauli
D. Garrison Cantonment Town	4. Ambala

Code:

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

Q42. Which of the following statements with regard to the land-use situation in India is/are correct?

1. There has been a tremendous decline in area under forest in recent years.
2. The rate of increase in land use in recent years is the highest in case of area under non-agriculture use.
3. Land use such as barren and wasteland, area under pastures and tree crops have experienced decline in recent years.

Select the correct answer using the code given below.

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

Q43. Which one of the following was not a part of the strategies followed by the Government of India to increase food grain production in India immediately after Independence?

- (a) Intensification of cropping over already cultivated land
- (b) Increasing cultivable area by bringing cultivable and fallow land under plough
- (c) Using high-yielding varieties (HYV) seeds
- (d) Switching over from cash crops to food crops

Q44. Which one of the following is a west-flowing river?

- (a) Mahanadi
- (b) Godavari
- (c) Krishna
- (d) Narmada

Q45. Khasi language is included in

- (a) Munda branch of Austro-Asiatic sub-family
- (b) Mon-Khmer branch of Austro-Asiatic sub-family
- (c) North Assam branch of Sino-Tibetan family
- (d) Assam-Myanmari branch of Sino-Tibetan family

Q46. The headquarters of Metro Railway Zone is located in

- (a) New Delhi
- (b) Mumbai
- (c) Kolkata
- (d) Chennai

Q47. Which one among the following is not a tributary of river Luni?

- (a) Khari
- (b) Sukri
- (c) Jawai
- (d) Banas

Q48. Match List-I with List-II and select the correct answer using the code given below the Lists:

List-I (Classification of Town)	List-II (Example)
A. Cheruthoni Dam	1. Madhya Pradesh
B. Indira Sagar Dam	2. Tamil Nadu
C. Kishnarajasagar Dam	3. Karnataka
D. Mettur Dam	4. Kerala

Code:

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

Q49. Which one among the following Union Territories of India shares the shortest length of National Highways?

- (a) Chandigarh
- (b) Delhi
- (c) Daman and Diu
- (d) Dadra and Nagar Haveli

Q50. Which one among the following passes links Lhasa with Ladakh?

- (a) Lanak La
- (b) Burzil
- (c) Babusar
- (d) Khyber

SOLUTIONS

S31. Ans.(b)

Sol. Boiling water absorbs heat in the form of latent heat for the purpose of changing its liquid state to vapors and latent heat of vaporization is quite high for water.

S32. Ans.(d)

Sol. Convection is transfer of heat through more and in bulb transfer due to radiation.

S33. Ans.(a)

Sol. Presence of eye on potato is an indication for modification of stem of plants.

S34. Ans.(b)

Sol. In humans, the most important male androgen is testosterone. Several accessory organs and ducts aid the process of sperm maturation and transport the sperm and other seminal components to the penis, which delivers sperm to the female reproductive tract.

S35. Ans.(c)

Sol. Colostrum (also known as beestings or first milk) is a form of milk produced by the mammary glands in late pregnancy and the few days after giving birth. Colostrum is high in carbohydrates, high in protein, high in antibodies, and low in fat.

S36. Ans.(a)

Sol. Adaptive Value of High Mutation Rates of RNA Viruses: Separating Causes from Consequences. As a consequence of the lack of proofreading activity of RNA virus polymerases, new viral genetic variants are constantly created. RNA viruses readily adapt to changing environmental conditions

S37. Ans.(c)

Sol. percentage of urban population in Goa (62.17%), Mizoram (51.51%), Maharashtra (45.23), and in Kerala (47.72%)

S38. Ans.(d)

Sol. Mangaluru does not fall on leeward slope.

S39. Ans.(b)

Sol. Tamil Nadu receives rainfall in the winter season due to northeast trade winds. The normal annual rainfall of the state is about 945 mm (37.2 in) of which 48% is through the North East monsoon, and 32% through the South West monsoon.

S40. Ans.(b)

Sol. Minicoy is separated from rest of the Lakshadweep by Nine Degree Channel whereas Lakshadweep group separated from Maldives by Eight Degree Channel.

S41. Ans.(a)

Sol. Industrial Town-Bhailai, Transport Town- Vishakhapatnam, Mining Town-Singrauli Garrison Cantonment Town-Ambala

S42. Ans.(c)

Sol. India's tree and forest cover has registered an increase of 1% or 8, 021 sq. km in two years since 2015, according to the latest assessment by the government. Land devoted to non-agricultural use has increased three-fold since Independence. It is set to increase further and faster,

S43. Ans.(c)

Sol. Agricultural sector was the most dominant sector during the time of India's independence, both in terms of its contribution to gross domestic product and in providing employment to the country's labour force. After independent immediate goal of government to increase food grain production by Switching over from cash crops to food crops, Intensification of cropping over already cultivated land, Increasing cultivable area by bringing cultivable and fallow land under plough etc.

S44. Ans.(d)

Sol. Narmada is the largest west flowing river of the peninsular India. Narmada flows westwards through a rift valley between the Vindhyan Range on the north and the Satpura Range on the south

S45. Ans.(a)

Sol. Khasi is an Austroasiatic language spoken primarily in Meghalaya state in India by the Khasi people. It is also spoken by a sizable population in Assam and Bangladesh. Khasi is part of the Austroasiatic language family, and is related to Cambodian, and Mon languages of Southeast Asia, and the Munda branch of that family, which is spoken in east-central India

S46. Ans.(c)

Sol. Apart from the headquarters of the Eastern and the South Eastern Railways, Kolkata is also has the headquarters of the Kolkata Metro Railways, which is now a zone of the Indian Railways

S47. Ans.(d)

Sol. Major tributaries of Luni river are the Sukri, Mithri, Bandi, Khari, Jawai, Guhiya and Sagi from the left, and the Jojari River from the right. The Luni River begins near Ajmer in the Pushkar valley of the western Aravalli Range at an elevation of about 550m. The Banas is a river of Rajasthan state in western India. It is a tributary of the Chambal River

S48. Ans.(d)

Sol. The Mettur Dam is one of the largest dams in India and the largest in Tamilnadu located across the river Cauvery. The Cheruthoni Dam, located in Idukki District, Kerala, India, is a 138m tall concrete gravity dam. The Indira Sagar Dam is a multipurpose project of Madhya Pradesh on the Narmada River. Krishna Raja Sagara, also popularly known as KRS, is a lake and the dam that creates it. They are close to the settlement of Krishnarajasagara in the Indian State of Karnataka.

S49. Ans.(a)

Sol.Length of National Highway in Chandhigarh is 15km, in Delhi is 80km, Daman and Diu is 22 km, Dadar and Nagar Haveli is 31 km.

S50. Ans.(a)

Sol. Lanak La is a well-established frontier point between Ladakh and Tibet. It is on the southeastern boundary of the Aksai chin region that is controlled by China.