Q1. Read the passage and on the basis of your understanding of the passage answer the questions given below:

1. India has never subscribed to the doctrine of militarism and war in her history. Here war was never treated as an ideal. It was only tolerated as unavoidable and inevitable, and all attempts were made to check it and bring it under control. Inspite of the frequency of wars in ancient India, in spite of highly developed military organization, techniques of war and imperialism, and in spite of the open justification of war as national policy, the heart of India loved pacifisms as an ideal capable of realization. India’s symbolic role was that of a peacemaker and it sincerely pinned its faith on the principle of “Live and let live”. At least philosophically, India’s intelligence supported the cause of peace not only in national affairs but in international affairs also. All the great seers of the yore visualized the unity of life, permeating all beings, animate or inanimate, which ruled out killing and suicidal wars.

2. This doctrine of philosophical pacifisms was practiced by ancient Aryans is, no doubt, a question of controversial nature. Certainly, the great Indian teachers and savants stuck to this doctrine tenaciously and in their personal life they translated it into practice and preached it to masses and even to princes of military classes.

3. Another culture of those times, the existence of which has been proved by the excavations of Mohanjo-Daro, also enunciated the doctrine of pacifism and friendship to all. Strangely enough, the Indus Valley civilization has revealed no fortification and very few weapons.

4. Ahimsa or the doctrine of non-violence in thought, speech and action assumed a gigantic importance in the Buddhist and Jain period. By a constant practice of this virtue, man becomes unassailable by even wild beasts, who forgot their ferocity the moment they entered the circumference of his magnetic influence. The monks and nuns of these churches were apostles of peace, who reached every nook and corner of the world and delivered the message of love to war-weary humanity. The greatest votary was the royal monk Ashoka, who in reality was responsible for transforming Ahimsa as an act of personal virtue, to Ahimsa as an act of national virtue.
5. Many a historian recounting the causes of the downfall of the Mauryas, hold the pacific policy of Ashokawhich had eschewed the aggressive militarism of his predecessors, responsible for an early decay of the military strength of the state and its consequent disintegration, leading to the rise of Sungas, Kanvasand Andhras. But, in reality the fault lies with the weak successors of Ashoka, who could not wield the weapon of non-violence with a skill and efficiency which required the strength of a spiritual giant like Ashoka. They failed due to their subjective weakness: Pacifism itself was no cause of their failure.

6. Besides the foregoing philosophical and religious school of thought, even many political authorities gave their unqualified support to the cause of pacifisms. They recognized the right of rivals to exist, not mainly as enemies, but as collaborators in the building of a civilization operation. Thus, for centuries, in the pre-Mauryan India, scores of small independent republics existed and flourished without coming in clash with each other.

7. With regard to Kautilya, the much maligned militarist and the so called Machiavelli of India, He thinks that the object of diplomacy is to avoid war.

8. The Mahabharata observes in the connection, “A wise man should be content with what can be obtained by the expedients of conciliation, gift and dissention.” It denounces the warring world of men by comparing it to a dog-kennel. “First there comes the wagging of tails, then turning of one round to other, then the show of teeth, then the roaring and then comes the commencement of the fights. It is the same with men; there is no difference whatever.” Yajnavalkya adds: „War is the last expedient to be used when all others have failed.” Likewise, Sri Krishnawho’s Bhagwad-Gita has been styled by some as „a song of the battle”, should not be considered out and out militarist. When all the three expedients were exhausted, then alone the fourth was resorted to.

9. All possible avenues of peace such as negotiation, conciliation through conference, meditation and so on, were explored before the war was resorted to. This proves that the heart of ancient India was sound and it longed for peace, although war also was not treated as an anathema, which was to be avoided as far as possible. (Words– 737)

(Extract from ‘Culture India-Pacifism has been the Ideal’ by Sri Indra)

1.1 Answer each of the questions given below by choosing the most appropriate option: (1X5=5)

(i) The heart of India loved _____

a) a highly developed military organization
b) techniques of wars and imperialism
c) loans
d) pacifism

(ii) Principle of „Live and let live“ means a)

imperialism
b) militarism

c) frequency of wars among nations

d) role of peace makers

(iii) Aryans preached and practiced this to the masses
a) non-violence
b) freedom of speech and action
c) philosophical pacifisms
d) practice of military organization

(iv) Mahabharata compares the warring world with
a) wise men
b) dog kennel
c) song of the battle
d) militarist

(v) Unearthing Mohan-jo-Daro reinforced the following of Pacifism
a) there was no fortification and very few weapons
b) they delivered the message of love
c) they were apostles of peace
d) thinks that the object of diplomacy is to avoid war

1.2 Answer the following questions briefly: (1X5=5)

(i) How was war treated in India?

(ii) Describe India’s preparedness for war in spite of their belief in Pacifism.

(iii) How did the Aryans practice the Doctrine of Pacifism?

(iv) What is Ahimsa?

(v) What is the meaning of co-existence with rivals?

1.3 Pick out the words/phrases from the passage which are similar in meaning to the following: (1X2=2)

(i) express in definite and clear terms (para 3)

(ii) the beginning (para 8)

Q 2. Read the passage and answer the questions given below: (8)

1. There is a clear dichotomy between Jayashankar Prasad’s daily life and the one that found expression in his literature. In his literary formulations, Prasad advocated an escape-from-personality ideal and categorically
stated: “An artist’s art, and not his person, is the touchstone to assess his work . . . it is only after losing his personality that he emerges in his art as an artist”.

2. In Prasad’s works – his poems, short stories, novels, dramas etc. – what emerges is life as shaped in the writer’s inner self by his emotions, fancies, dreams, reveries . . . His writings are a record not of outer reality, but of the artist’s inner world. As such, of a proper appreciation and understanding of his works more emphasis needs to be placed on the working of his mind, than the events of his day-to-day life.

3. Prasad was born in a renowned family of Varansi. His grand-father Shiv Ratan Sahu, a dealer in high quality perfumed tobacco (snuff). Besides being an astute businessman, he was endowed with a marked cultural taste. His home was the meeting place of the local poets, singers, artists, scholars and men of religion. Prasad’s father Devi Prasad Sahucarried forward this high tradition of family. Prasad, therefore, had a chance to study the various phases of human nature in the light of the business traditions, artistic taste and religious background of his family.

4. When the business had somewhat recovered, Prasad planned the publication of a literary journal. Prasad started the “Indu”. The inaugural number appeared in July 1909. By this time Prasad’s notions of literature had crystalized into a credo. In the first issue of Indu, he proclaimed, „Literature has no fixed aim; it is not slave to rules; it is free and all-embracing genius, gives birth to genuine literature which is subservient to none. Whatever in the world is true and beautiful is its subject matter. By the dealing with the True and Beautiful it establishes the one and affects the full flowering of the others. Its force can be measured by the degree of pleasure it gives to the reader’s mind as also by criticism which is free of all prejudice”. The words sound like the manifesto of romanticism in literature.

5. Even while recognizing the social relevance of literature, Prasad insisted, “The poet is a creator . . . he is not conditioned by his milieu; rather it is he who moulds it and gives it a new shape; he conjures up a new world of beauty where the reader for the time being, becomes oblivious of the outer world and passes his time in an eternal spring garden where golden lotuses blossom and the air is thick and pollen”. Thus, the chief aim of literature according to Prasad is to give joy to the reader and to create a state of bliss in him. Later under the impact of Shaivadvaitism, this faith of Prasad got further strengthened. (word length-490)

(Extract from ‘Jayashankar Prasad- His mind and Art’ by Dr. Nagendra)

2.1 On the basis of your understanding of the above passage, make notes on it using headings and subheadings. Use recognizable abbreviations (wherever necessary-minimum four) and a format you consider suitable. Also supply an appropriate title to it. (4)

2.2 Write a summary of the passage in about 100 words. (4)
SECTION: B (ADVANCED WRITING SKILLS) 30 MARKS

Q.3 You are Simar / Smriti of Lotus International School, Jodhpur. Your school is organizing a workshop on „Prevention of Drug Abuse“ in the coming week. Prepare a poster with complete information for the students of class X-XII. (4)

OR

You are Simar / Smriti of Lotus International School, Jodhpur. Your school has decided to contribute in controlling traffic near your school and requires the names of volunteers from IX to XII. Write a notice to be displayed on the notice board. (50 words) (4)

Q.4 Public demonstration causes a lot of disturbance in daily routine of common man. You almost missed your important entrance examination as people blocked the highway. As Tarun / Taruna, a student aspiring to be a doctor, write a letter to the Editor of The Times of India highlighting the need to discourage such demonstrations and disturbance by public on highways which cause a great loss of time and opportunity for many. (100-125 words) (6)

OR

You are Tarun / Taruna who bought a new Luminous Inverter for your home from R.K. Electronics, Noida but found many functional problems as the charging is not done properly and battery water is getting leaked. Write a letter of complaint to the proprietor to take care of the same. (100-125 words) (6)

Q.5 You are Mukul / Mahima of Alps Public School. Your school has organized a debate on „Social Media and It“s Effects“ and you will be participating from your school. Prepare your views against or in favour of the motion. (150-200 words) (10)

OR

As Mukul / Mahima of Alps Public School, write a speech to be delivered in school assembly highlighting the importance of cleanliness suggesting that the state of cleanliness reflects the character of its citizens. (150-200 words) (10)

Q.6 By 2050, India will be amongst the countries which will face acute water shortage. You are highly alarmed and terrified of the future world without water. So, write an article on „Save water- are we doing enough?“ for the local daily in 150-200 words. (10)

OR

You are Karan / Kirti of L.M. Memorial Public School, Dwarka. Your school has adopted a village as a social responsibility. Students are being taken to teach the children of that village on a regular basis. Write a report, for your school magazine, on the various other programmes organized there.
SECTION: C (LITERATURE: TEXT BOOKS) 30 MARKS

Q7. Read the following extract and answer the questions that follow.

(a) Break O break till they break the town
    And show the children to green fields, and make their world
    Run azure on gold sands, and their tongues
    Run naked into books the white and green leaves open
    History theirs whose language is the sun.

(i) What has been asked to break in the first line?
(ii) What kind of a world does the poet visualize for these children?
(iii) What does the expression ‘Run naked into books’ stand for in the given extract?
(iv) Name the poem and the poet of the given extract.

(b) While I was wondering about it all, M. Hamel mounted his chair, and, in the same grave and gentle tone which he had used to me, said, “My children, this is the last lesson I shall give you. The order has come from Berlin to teach only German in the schools of Alsace and Lorraine...”

(i) Who is ‘I’ and what does the word ‘it’ stand for in the given extract?
(ii) What is ‘The order’ referred to in the given excerpt?
(iii) What language did Monsieur Hamel teach?
(iv) Find a word from the passage which means ‘climbed up’.

Q8. Answer any five the following questions in 30-40 words: (5X2=10)

(i) “We’ve all a great deal to reproach ourselves with” said M.Hamel. Refer to the context and explain what he wanted to convey to his students.
(ii) Why was Edla happy to see the gift left by the peddler?
(iii) When Gandhi got the whole hearted support of the lawyers, he said, “The battle of Champaran is won”. What was the essence behind his statement?
Q 9. Answer any one of the following questions in 120-125 words: (6)

(i) Unrealistic dreams often lead to a great deal of unhappiness. Justify the statement on the basis of the story "Going Places".

(ii) The childhood experience of terror of Douglas made him stronger and more determined. Elucidate the above statement supporting it with evidences from the text.

Q10. Answer any one of the following questions in about 120-150 words: (6)

(i) The servants of Sadao and Hana reflect a particular mindset of the general public in society towards the thinking and broad minded human beings. Elaborate with the help of the story "The Enemy".

(ii) Optimism in one’s attitude helps deal with all the challenges in life. Prove the statement by referring to the character Mr. Lamb from the chapter "On the Face of It".

**********
5. Write the short note on management as a profession.

6. Differentiate between management principle and management techniques.

7. Explain the principle of scalar Chain and gang plank.

8. Distinguish between unity of command and Unity of direction.

9. Name and explain any five techniques of scientific management.

10. “Every business may be benefited from being aware of different dimensions of business environment.” Explain any four dimensions.

11. Explain four impacts of government policy changes on business and industry.

12. “Planning provides directions” and “reduces the risk of uncertainty”. Explain how?

13. Explain briefly any four types of plan.

14. How plans create rigidity and reduce creativity?

15. Why is decentralisation essential in large organisations?

16. Explain the meaning and relation between the authority and responsibility.

17. How is formal organisation better than informal organisation? Give three reasons.

18. Explain the principle of “Absolute Accountability”.

19. Discuss the elements of delegation.

20. Differentiate between on the job training and off the job training.

21. Why is training important these days?
22. Define training and development.
23. Explain induction and vestibule training method.

24. You are the personnel manager of Caterpillar and Company Limited. You are directed by the directors to select a chartered accountant for the company. Explain the selection procedure for the same.

25. Explain any three advantages and any three limitations of external sources of recruitment.

26. Who is a supervisor? Name his functions.

27. Which type of incentives are needed to satisfy the social and psychological needs?

28. Distinguish between formal and informal communication.

29. Explain Personal barriers to communication.

30. State and explain five types of monetary incentives.

31. What is the difference between downward and upward Communications? Give examples.

32. Explain how "Management by exception" helps in controlling?

33. "Controlling is looking back". Explain.

34. "Controlling is an indispensable function of management." Explain

35. Explain various steps in the process of controlling.

36. Differentiate between 'method' and 'budget' as types of plans.


38. Why is it essential for business to be aware of its environment?

39. What are the personal objectives of Management?

40. Justify the need of management in a business organization.
1. Define Ebullioscopic constant or molal elevation constant.

2. Of 0.1 molal solutions of glucose and potassium chloride respectively, which one will have a higher boiling point?

3. Define molality in terms of elevation in boiling point.

4. Which has the highest freezing point?
   (a) 1 M glucose (b) 1 M NaCl (c) 1 M CaCl₂ (d) 1 M AlF₃

5. Consider the following diagram in which an electrochemical cell is coupled to an electrolytic cell. What will be the polarity of electrodes 'A' and 'B' in the electrolytic cell?

6. The standard reduction potential for \( \text{Zn}^{2+}(aq)/\text{Zn}(s) \) is \(-0.76 \text{ V}\). Write the reactions occurring at the electrodes when coupled with NHE or SHE (standard hydrogen electrode).

7. Why does alkaline medium inhibit rusting of iron?

8. What are the products obtained at cathode and anode when molten PbBr₂ is electrolysed.

9. Identify the reaction order from each of the following rate constants:
   (i) \( k = 2.3 \times 10^{-5} \text{ L mol}^{-1} \text{ s}^{-1} \)
   (ii) \( k = 3 \times 10^{-4} \text{ s}^{-1} \)

10. For the reaction \( \text{Cl}_2 (g) + 2\text{NO} (g) \rightarrow 2\text{NOCl} (g) \), the rate law is expressed as \( \text{rate} = k[\text{Cl}_2][\text{NO}]^2 \)
    What is the overall order of this reaction?

11. In the reaction \( \text{A} \rightarrow \text{B} \), if the concentration of \( \text{A} \) is plotted against time, the nature of the curve obtained will be as shown in figure. What is the order of the reaction?
12 There is hardly any increase in atomic size with increasing atomic numbers in a series of transition metals. Give reason.

13 On what ground can you say that scandium (Z = 21) is a transition element but zinc (Z = 30) is not?

14 Why do transition metals show variable oxidation states?

15 Lanthanoids form primarily +3 ions, while the actinoids usually have higher oxidation states in their compounds, +4 or even +6 being typical. Give reason.

16 Write IUPAC name of K₃[Fe(C₂O₄)₃].

17 Name the coordination compound: K₃[CrF₆].

18 Write the IUPAC name of [Pt(NH₃)₆]Cl₂.

19 Write the IUPAC name of [Pt(NH₃)₅(NO)]Cl₂.

20 Write the IUPAC name of [Co(CN)₃(NH₃)₄]Cl.

21 Write the IUPAC name of [PtCl(NH₂CH₃)(NH₃)₂]Cl.

22 Identify the chiral molecule in the following pair:

23 Explain why the following pairs of compound do not show optical activity.

24 Identify the products A and B formed in the following reaction:

25 Which would undergo Sₙ₂ reaction faster in the following pair and why?
26 Which would undergo S_N_1 reaction faster in the following pair:
\[ \text{CH}_3\text{CH}_2\text{Br} \quad \text{and} \quad \text{CH}_3\text{CHCH}_3 \]

27 Which would undergo S_N_2 reaction faster in the following pair and why?
\[ \text{CH}_3\text{CH}_2\text{Br} \quad \text{and} \quad \text{CH}_3\text{CH}_2\text{I} \]

28 Which would undergo S_N_1 reaction faster in the following pair and why?
\[ \text{CH}_3\text{CH}_2\text{Br} \quad \text{and} \quad \text{CH}_3\text{CHCH}_3 \]

29 Write the IUPAC name of the following compound:
\[ \text{H}_3\text{C} \quad \text{CH} \quad \text{CH} \quad \text{CH} \quad \text{CH}_2 \quad \text{CH}_3 \quad \text{OH} \]

30 Which of the following isomers is more volatile:
\[ \text{o-nitrophenol} \quad \text{or} \quad \text{p-nitrophenol} \]

31 Arrange the following in decreasing order of their acidic character:
(i) \( \text{CH}_3\text{O} \quad \text{OH} \),
(ii) \( \text{O}_2\text{N} \quad \text{OH} \),
(iii) \( \text{C}_6\text{H}_5\text{OH} \).

32 Name a compound which is used as antiseptic as well as disinfectant.

33 How would you convert ethanol to ethene?

34 Write the chemical equation for the preparation of phenol from benzene using oleum and sodium hydroxide.

35 How is ethanol obtained from 2-butene?

36 Write the names of monomers of the following polymer:
37 What does the part '6, 6' mean in the name nylon-6, 6?

38 Identify the type of polymer given in the following figure.

39 Identify the polymer given below:

40 A solution is prepared by dissolving 10 g of non-volatile solute in 200 g of water. It has a vapour pressure of 31.84 mm Hg at 308 K. Calculate the molar mass of the solute. (Vapour pressure of pure water at 308 K = 32 mm Hg)

41 The vapour pressure of pure benzene at a certain temperature is 0.85 bar. A non-volatile, non-electrolyte solid weighing 0.5 g is added to 39.0 g of benzene (molar mass 78 g mol⁻¹). Vapour pressure of the solution, then, is 0.845 bar. What is the molar mass of the solid substance?

42 18 g of glucose, C₆H₁₂O₆, is dissolved in 1 kg of water in a saucepan. At what temperature will water boil at 1.103 bar? (Kₒ for H₂O is 0.52 k kg mol⁻¹)

43 Find the boiling point of a solution containing 0.520 g of glucose (C₆H₁₂O₆) dissolved in 80.2 g of water. [Given: Kₒ for water = 0.52 K/m]

44 Set up Nernst equation for the standard dry cell. Using this equation, show that the voltage of dry cell has to decrease with use.

45 (a) Following reactions occur at cathode during the electrolysis of aqueous silver chloride solution:

\[ \text{Ag}^{+}(aq) + e^- \rightarrow \text{Ag}(s); \quad E^\circ = +0.80 \text{ V} \]
\[ \text{H}^+(aq) + e^- \rightarrow \frac{1}{2} \text{H}_2(g); \quad E^\circ = 0.00 \text{ V} \]

On the basis of their standard reduction electrode potential (E°) values, which reaction is feasible at the cathode and why?

(b) Define limiting molar conductivity. Why conductivity of an electrolyte solution decreases with the decrease in concentration?

46 Determine the values of equilibrium constant (Kₒ) and ΔG° for the following reaction:

\[ \text{Ni}(s) + 2\text{Ag}^+(aq) \rightarrow \text{Ni}^{2+}(aq) + 2\text{Ag}(s), \quad E^\circ = 1.05 \text{ V} \]

47 Give an example of a fuel cell and write the cathode and anode reactions for it.
48 Write the overall reaction that occurs during use (discharging) of nickelcadmium cell. Is it a primary or a secondary cell. Mention its one merit over the lead storage cell.

49 The reaction \( 2\text{NO}_2 + F_2 \rightarrow 2\text{NO}_2 F \) involves the following steps: \( \text{NO}_2 + \text{NO}_2 \xrightleftharpoons[K]{\text{N}_2\text{O}_4 \ (\text{Fast)}} \text{N}_2\text{O}_4 + F_2 \rightarrow 2 \text{NO}_2 F \) (Slow) Write the rate law. Calculate the overall order of the reaction and what is the rate determining step?

50 A first order reaction has rate constant \( k = 5.5 \times 10^{-14} \text{ s}^{-1} \). Find the half life of the reaction.

51 Define the following:
   (i) Rate constant ‘k’ (ii) Activation energy (\( E_a \))

52
   (i) If half life period of a first order reaction is \( x \) and \( \frac{3}{4} \text{th} \) life period of same reaction is \( y \), how are \( x \) and \( y \) related to each other?
   (ii) In some cases, it is found that a large number of colliding molecules have energy more than threshold energy but yet the reaction is slow. Why?

53 Give four reasons for development of charge on colloidal particles.

54 (i) What is meant by C.M.C (Critical micell concentration)?
   (ii) Are the sols of metal hydrophilic or hydrophobic?

55 Assign reasons for each of the following:
   (i) Transition metals generally form coloured compounds.
   (ii) Manganese exhibits the highest oxidation state of + 7 among the 3d series of transition elements.

56 Explain the following observations:
   (i) Generally there is an increase in density of elements from titanium (\( Z = 22 \)) to copper (\( Z = 29 \)) in the first series of transition elements.
   (ii) Transition elements and their compounds are generally found to be good catalysts in chemical reactions.

57 Explain the following observations:
   (i) Transition elements generally form coloured compounds.
   (ii) Zinc is not regarded as a transition element.

58
   \( (i) \quad 2\text{MnO}_4^- + 5\text{SO}_3^{2-} + 6\text{H}^+ \rightarrow \)
   \( (ii) \quad 2\text{CrO}_4^{2-} + 2\text{H}^+ \rightarrow \)

Complete the following equations:

59
   \( (i) \quad 2\text{MnO}_4^- + 5\text{NO}_2^- + 6\text{H}^+ \rightarrow \)
   \( (ii) \quad \text{Cr}_2\text{O}_7^{2-} + 14\text{H}^+ + 6\text{e}^- \rightarrow \)

Complete the following equations.
Complete the following chemical equations:

\[
\begin{align*}
(i) & \quad \text{MnO}_4^- (aq) + C_2O_4^{2-} (aq) + H^+ (aq) \rightarrow \\
(ii) & \quad Cr_2O_7^{2-} (aq) + Fe^{2+} (aq) + H^+ (aq) \rightarrow
\end{align*}
\]

61. Name the oxometal anions of the first series of the transition metals in which the metal exhibits the oxidation state equal to its group number.

62. How will you distinguish between the following pairs by chemical reactions?
   (i) CH₃OH and C₂H₅OH
   (ii) Phenol and methanol
   (iii) 1-Propanol and 2-methyl-2-propanol
   (iv) Ethanol and 1-propanol?

63. How would you obtain
   (i) Picric acid (2, 4, 6-trinitrophenol) from phenol,
   (ii) 2-Methylpropene from 2-methylpropanol?

64. Write the reactions and the conditions involved in the conversion of:
   (a) Propene to 1-Propanol (b) Phenol to Salicylic acid

65. Arrange the following compounds in increasing order of acidity and give a suitable explanation.
   Phenol, o-nitrophenol, o-cresol
   The presence of electron withdrawing group increases acidic strength, whereas presence of electron releasing group decreases acid strength.

66. Sodium salts of some acids are very useful as food preservatives. Suggest a few such acids.

67. Explain the role of allosteric site in enzyme inhibition?

68. Write three features of chemisorptions which are not found in physisorptions. Illustrate your answer with suitable examples.

69. Explain the following:
   (a) Same substance can act both as colloids and crystalloids.
   (b) Artificial rain is caused by spraying salt over clouds.
   (c) When a beam of light is passed through a colloidal sol, the path of the beam gets illuminated.

70. Give reasons for the following observations:
   (i) Leather gets hardened after tanning.
   (ii) Lyophilic sol is more stable than lyophobic sol.
   (iii) It is necessary to remove CO when ammonia is prepared by Haber's process.

71. Give reasons for the following observations:
   (i) Physisorption decreases with increase in temperature
   (ii) Addition of alum purifier the water.
   (iii) Brownian movement provides stability to the colloidal solution.
72 (a) In reference to Freundlich adsorption isotherm, write the expression for adsorption of gases on solids in the form of an equation.

(b) Write an important characteristic of lyophilic sols.

(c) Based on type of particles of dispersed phase, give one example each of associated colloid and multimolecular colloid.

73

(a) Write the mechanism of the following reaction: \( \text{CH}_3\text{CH}_2\text{OH} \xrightarrow{\text{HBr}} \text{CH}_3\text{CH}_2\text{Br} + \text{H}_2\text{O} \)  

Write the equation involved in Reimer-Tiemann reaction.

74 How would you convert the following:

(i) Phenol to benzoquinone  
(ii) Propanone to 2-methylpropan-2-ol  
(iii) Propene to propan-2-ol

75

\[ (i) \text{CH}_3\text{CH}_2\text{CH}_2\text{O} + \text{HBr} \rightarrow \text{CH}_3\text{CH}_2\text{CH}_2\text{Br} \]

\[ (ii) \text{CH}_3\text{CH}=\text{CH}_2 + \text{HBr} \rightarrow \text{CH}_2=\text{CH}-\text{CH}_2\text{Br} \]

\[ (iii) \text{C}(_3\text{H}_2\text{C})\text{OC}_2\text{H}_5 + \text{HBr} \rightarrow \text{C}(_3\text{H}_2\text{C})\text{OC}_2\text{H}_5\text{Br} \]

State the products of the following reactions:

76 How do you convert the following:

(i) Phenol to anisole  
(ii) Propan-2-ol to 2-methylpropan-2-ol  
(iii) Aniline to phenol

77 Write one chemical equation for each, to illustrate the following reactions:

(i) Rosenmund reduction  
(ii) Cannizzaro reaction  
(iii) Fischer esterification

78 How are the following conversions carried out?

(i) Ethylcyanide to ethanoic acid  
(ii) Butan-1-ol to butanoic acid  
(iii) Benzoic acid to m-bromobenzoic acid.

79 Convert:

(i) Acetophenone to ethylbenzene  
(ii) Ethanal to 2-aminoethanoic acid  
(iii) Methyl chloride to ethanoic acid.
Write the major products:

80

\[
\begin{align*}
(i) \quad & \text{CH}_3\text{C}═\text{O} + \text{H}_2\text{N−NHCONH}_2 \rightarrow ? \\
(ii) \quad & \text{C}_6\text{H}_5\text{CH}_2\text{CH}_3 \xrightarrow{(a) \text{KMnO}_4/\text{KOH, } \Delta \atop (b) \text{H}^+} ? \\
(iii) \quad & \text{C}_6\text{H}_5\text{COOH} \xrightarrow{\text{Conc. HNO}_3/\text{H}_2\text{SO}_4} ?
\end{align*}
\]

Predict the products of the following reactions.

81

\[
\begin{align*}
(i) \quad & \text{CH}_3\text{C}═\text{O} \xrightarrow{\text{HCONH}_2} ? \\
(ii) \quad & \text{C}_6\text{H}_5\text{MgBr} \xrightarrow{(a) \text{CO}_2 \atop (b) \text{H}_2\text{O/}\text{H}^+} ? \\
(iii) \quad & \text{CH}_3\text{CN} \xrightarrow{\text{LiAlH}_4} ?
\end{align*}
\]

82 An aliphatic compound ‘A’ with a molecular formula of C\(_3\)H\(_6\)O reacts with phenylhydrazine to give compound ‘B’. Reaction of ‘A’ with I\(_2\) in alkaline medium on warming, gives a yellow precipitate ‘C’. Identify the compounds A, B and C.

83 Two moles of organic compound ‘A’ on treatment with a strong base gives two compounds B and C. Compound ‘B’ on dehydrogenation with Cu gives ‘A’ while acidification of ‘C’ yields carboxylic acid ‘D’ having molecular formula of CH\(_2\)O\(_2\). Identify the compounds A, B, C and D.

84 Distinguish between addition polymers and condensation polymers. Classify the following into addition and condensation polymers:

(a) Polythene
(b) PTFE
(c) Polybutadiene
(d) Bakelite

85 Identify the four groups into which the polymers are classified on the basis of the magnitude of intermolecular forces present in them. To which group or groups do polythene and bakelite belong?

86 Write the (i) structure and (ii) one use of each of the following polymers:

(a) PVC
(b) Urea-formaldehyde resin
(c) Bakelite

87 Explain the following types of substances with one suitable example, for each case:

(i) Cationic detergents.
(ii) Food preservatives.
(iii) Analgesics.

88 Mention one use each of the following drugs:

(i) Ranitidine
(ii) Paracetamol
(iii) Tincture of iodine

89 (a) Describe (i) Aldol condensation (ii) Cannizaro's reaction.
(b) Describe a chemical test to distinguish between
(i) Ethanal and Propanal (ii) Benzaldehyde and Acetophenone
(iii) Pentan-2-one and pentan-3-one

90 (a) Write structures of following compounds:
(i) 4-chloro pentan-2-one (ii) But-2-en-1-al
(b) Predict the products of following reactions:
 \( \text{CH}_3\text{COOH} \xrightarrow{\text{Br}_2/\text{P}} \text{CH}_3\text{CHO} \xrightarrow{\text{LiAlH}_4} \)
 \( \text{CH}_3\text{CH} = \text{CH}_{\text{CH}_3} \xrightarrow{\text{Zn-H}_2/\text{conc. HCl}} \)

91 (a) Write IUPAC name of the following compounds:
\[ \text{CH}_3\text{C} = \text{CH} = \text{CHO} \]

   (i) \( \text{CH}_3\text{CH} = \text{CHCH}_2\text{CH}_2\text{CH}_3 \) (ii) \( \text{CH}_3\text{C} = \text{CH} = \text{CHO} \)

   carry out following conversions:
(i) Ethanol to 3-hydroxy butanal
(ii) Benzoic acid to m-nitro benzyl alcohol.
(iii) Propanone to propene.

92 On the occasion of World Health Day, Dr. Satpal organized a 'health camp' for the poor farmers living in a nearby village. After check-up, he was shocked to see that most of the farmers suffered from cancer due to regular exposure to pesticides and many were diabetic. They distributed free medicines to them. Dr. Satpal immediately reported the matter to the National Human Rights Commission (NHRC). On the suggestions of NHRC, the government decided to provide medical care, financial assistance, setting up of super-speciality hospitals for treatment and prevention of the deadly disease in the affected villages all over India.
(i) Write the values shown by
   (a) Dr. Satpal (b) NHRC.
(ii) What type of analgesics are chiefly used for the relief of pain of terminal cancer?
(iii) Give an example of artificial sweetener that could have been recommended to diabetic patients.

93 Mamta, a housewife lives in Sonepat (Haryana). The tap water she gets is rich in dissolved salts. She uses ordinary washing soap for washing her clothes and she finds that soap is not very effective in cleaning her clothes. One of her neighbours, Shilpa is a student of science. Shilpa suggested to her to use synthetic detergent for washing clothes.

Answer the following questions:
(i) As a science student, why did Shilpa suggest to Mamta to use synthetic detergent.
(ii) Give one chemical reaction to justify not using ordinary soap.
(iii) What are values associated with the above decision?
Due to hectic and busy schedule, Mr. Angad made his life full of tensions and anxiety. He started taking sleeping pills to overcome the depression without consulting the doctor. Mr. Deepak, a close friend of Mr. Angad, advised him to stop taking sleeping pills and suggested to change his lifestyle by doing Yoga, meditation and some physical exercise. Mr. Angad followed his friend's advice and after few days he started feeling better.

After reading the above passage, answer the following:
(i) What are the values (at least two) displayed by Mr. Deepak?
(ii) Why is it not advisable to take sleeping pills without consulting doctor?
(iii) What are tranquilizers? Give two examples.

1) The first Sufi Tazkira was written in India by
   a. Ali bin Usman Hujwiri.
   b. Amir Hasan Sijzi Dehlavi.
   c. Abdul Haqq Muhaddis Dehlavi.
   d. Mir Khwurd Kirmani.
2) Kirtana-ghosha was composed by
   a. Shankaradeva.
   b. Surdas.
   c. Kabir Das.
   d. Sundaramurti.
3) Mirabai was a strong devotee of:
   a. Rama.
   b. Vishnu.
   c. Shiva.
   d. Krishna.
4) The preceptor of Mirabai was
   a. Surdas.
   b. Raidas.
   c. Kabir Das.
   d. Ram Das.
5) The Guru whose compositions were included in the Guru Granth Sahib, in late seventeenth century, was
   a. Baba Guru Nanak.
   b. Guru Arjan.
   c. Guru Gobind Singh.
   d. Guru Tegh Bahadur.
6) Baba Guru Nanak was born in
   a. 1459 AD.
   b. 1469 AD.
   c. 1479 AD.
   d. 1489 AD.
7) The anthologies of compositions by the Alvars, Nalayira Divyaprabandham, was described as the
   a. Kannda Veda.
   b. Malayalam Veda.
   c. Tamil Veda.
   d. Telugu Veda.
8) The 'khanqah' was the centre of
   a. cultural life.
   b. political life.
   c. social life.
d. spiritual life.

9) The biography of Shaikh Muinuddin Chishti, 'Munis al Arwah', was written by
   a. Amir Khusrau.
   b. Jahanara.
   c. Dara Shukoh.
   d. Quli Khan.

10) Mirabai was a princess of Merta in Marwar from the community of
    a. Julahas.
    b. Chaulukyas.
    c. Pariharas.
    d. Rajputs.

11) The ninth Guru, whose compositions were compiled in the *Guru Granth Sahib* was:
    a. Guru Tegh Bahadur
    b. Baba Guru Nanak
    c. Guru Gobind Singh
    d. Guru Arjan

12) Mirabai recognised, as her lover, Lord Krishna, who was the avatar of
    a. Brahma.
    b. Rama.
    c. Shiva.
    d. Vishnu.

13) Biographies of Mirabai have been reconstructed primarily from the
    a. bhajans.
    b. deities.
    c. inscriptions.
    d. palm leaves.

14) In the bhakti tradition, Mirabai is probable the best-known woman
    a. writer.
    b. poet.
    c. preacher.
    d. temple dancer.

15) Tondaradippodi, an Alvar, belonged to the caste of
    a. Brahmanas.
    b. Kshatriyas.
    c. Vaishyas.
    d. Shudras.

16) The first site to be discovered in the Indus Valley Civilisation was
    a. Chanhudaro.
    b. Banawali.
    c. Harappa.
    d. Mohenjodaro.

17) There has been growing international interest in the Harappan archaeology since...
    a. 1950s.
    b. 1960s.
    c. 1970s.
    d. 1980s.

18) Team of American excavators began excavations at Harappa in
    a. 1986.
d. 1989.
19) “Marshall left India three thousand years older than he had found her” was stated by
   a. B.B. Lal.
   b. Daya Ram Sahni.
   c. Rakhal Das Banerji.
   d. S.N. Roy.

21) Transformation of material culture happened in the few Harappan sites after
   a. 1600 BCE.
   b. 1700 BCE.
   c. 1800 BCE.
   d. 1900 BCE.

22) Craftsmen obtained the red colour of carnelian by
   a. dyeing.
   b. using fire.
   c. natural means.
   d. polishing.

23) Report of Alexander Cunningham on Harappan seal was published in the year...
   a. 1872.
   b. 1873.
   c. 1874.
   d. 1875.

24) The roads and streets in Harappan towns and cities were laid in a
   a. square pattern.
   b. grid pattern.
   c. circular pattern.
   d. semi-circular pattern.

25) Pots in Harappan Civilisation that were probably luxury items were made of
   a. lapis lazuli.
   b. faience.
   c. carnelian.
   d. copper.

26) Rows of distinctive fire altars with the provision of ritual bathing were discovered at
   a. Mohenjodaro.
   b. Harappan.
   c. Kalibangan.
   d. Dholavira.

27) A seemingly mythical animal engraved on most of the Harappan seals is the
   a. unicorn.
   b. elephant.
   c. bison.
   d. tiger.

28) The latest Harappan site discovered in Gujarat is
   a. Dholavira.
   b. Rangpur.
   c. Lothal.
   d. Nageshwar.

29) The name Dilmun, which is mentioned in Mesopotamian texts, probably refers to the Island of...
   a. Harappa.
   b. Oman.
c. Bahrain.
d. Persia.

30) The Harappan deity known as 'Pashupati' was known as the lord of all animals, especially...
   a. tiger.
   b. elephant.
   c. rhinoceros.
   d. cattle.

31) The metal procured by the Indus Valley people from Rajasthan was
   a. copper.
   b. bronze.
   c. gold and silver.
   d. tin.

32) How do archeologists identify centres of craft production?
33) Why was seal important on the bags in which the goods were sent by the people in Harappan culture?
34) What were the characteristics of the seals used by the Harappans?
35) What is meant by the term ‘Chert’? Describe the purpose it served?
36) What kind of evidence has proved most useful to archeologists to study the Mohenjodaro and Harappan cultures?
37) What are the five pillars of faith in Islam?
38) Define the term Zimmi.
39) What is Shari’a?
40) Who were the Ulama?
41) Why were the Alvars and the Nayanars in conflict with Buddhism and Jainism?
42) How do the historians of religion classify bhakti traditions?
43) What were the conflicts that arose during the Bhakti Movement?
44) What is the meaning of “Tantric”?
45) Who coined the sociological terms “great” and “little” traditions?
46) What was the most striking feature regarding religion, during the period between eighth to eighteenth centuries?
47) Mention about the Sufis’ relationship with the state.
48) Write a note on Kabir and his teachings.
49) Write a note on Guru Nanak and his teachings.
50) Write a note on Mirabai.
51) Read the following passage and answer the questions give below: This is an excerpt from the Mahaparinibbana Sutta, part of the Sutta Pitaka:

As the Buddha lay dying, Ananda asked him:

“What are we to do Lord, with the remains of the Tathagata (another name for the Buddha)?”

The Buddha replied: “Hinder not yourselves Ananda by honouring the remains of the Tathagata. Be zealous, be intent on your own good.”

But when pressed further, the Buddha said: “At the four crossroads they should erect a thupa (Pali for stupa) to the Tathagata. And whosoever shall there place garlands or perfume … or make a salutation there, or become in its presence calm of heart, that shall long be to them for a profit and joy.”

[3+2+3=8]

(a) What is a Stupa? Why were they regarded as sacred?
(b) Where were the early Stupas built?

(c) Who all made donations for the construction of Stupas?

52) What was the philosophy of Buddhism?

53) Describe the sculpture and its interpretation in the Sanchi Stupa.

54) Discuss the changes within Hindu traditions by around 1st century CE.

55) Describe the architecture of temples around the time when Stupas were being built.
16. Describe the crucial role played by India in the NAM during the cold war period. 6

17. Assess any six outcomes of planning in India. 6

MODEL PAPER 12 ECONOMICS

1. Explain the main steps involved in the expenditure method of estimating national income. 6

2. How are the following treated in the estimation of national income?
   (a) Transfer payments. 6
   (b) Services of owner occupied houses.
   (c) Commission received from sale of second hand goods.
   (d) Non-marketable goods.

3. Are the following a part of a country's 'net domestic product at market price'? Explain.
   (a) Net indirect taxes 6
   (b) Net exports
   (c) Net factor income from abroad
   (d) Consumption of fixed capital

4. Will the following be a part of domestic factor income of India? Give reasons for your answer.
   (a) Factor income from abroad.
   (b) Salaries to Indian residents working in Russian Embassy in India.
   (c) Profits earned by a company in India, which is owned by a non resident.

5. If the Real GDP is ₹300 and Nominal GDP is ₹330, calculate Price Index (base = 100). 3

6. If the real GDP is ₹400 and Nominal GDP is ₹450, calculate the Price Index (base = 100). 3

7. If the Nominal GDP is ₹600 and Price Index (base = 100) is 120, calculate the Real GDP. 3

8. If the Real Gross Domestic Product is ₹200 and the Nominal Gross Domestic Product is ₹210, calculate the Price Index (base = 100). 3

9. If the Real Gross Domestic Product is ₹250 and the Price Index (base = 100) is 120, calculate the Nominal Gross Domestic Product. 3

10. From the following data, calculate (a) NNP at FC and (b) NDP at FC. 4
    (₹ in crores)
11 Given the following data:

(i) Net domestic product at market price 24,000 crores
(ii) Depreciation 4,000
(iii) Indirect taxes 120
(iv) Subsidies 30
(v) Factor income from abroad 400
(vi) Factor income to the rest of the world 600

Calculate GNP at factor cost.

12 From the following data, calculate ‘gross value added at factor cost’:

(i) Sales 180 lakhs
(ii) Rent 5
(iii) Subsidy 10
(iv) Change in stock 15
(v) Purchase of raw materials 100
(vi) Profits 25

13 Calculate ‘value of output’ from the following data:

(i) Net value added at factor cost 100 lakhs
(ii) Intermediate consumption 75
(iii) Excise duty 20
(iv) Subsidy 5
(v) Depreciation 10

14 Calculate ‘intermediate consumption’ from the following data:

(i) Value of output 200 lakhs
(ii) Net value added at factor cost 80
(iii) Sales tax 15
(iv) Subsidy 5
(v) Depreciation 20

15 Calculate net value added at factor cost from the following data:

(i) Purchase of machinery to be used in the production unit 100 lakhs
(ii) Sales 200
(iii) Intermediate costs 90
(iv) Indirect taxes 12
(v) Change in stock 10
(vi) Excise duty 6
(vii) Stock of raw material 5

16 From the following data calculate net value added at factor cost:
(\text{in lakhs})
(i) Net factor income from abroad 30
(ii) Sales 3,500
(iii) Purchase of intermediate goods 2,000
(iv) Consumption of fixed capital 500
(v) Exports 400
(vi) Indirect taxes 350
(vii) Change in stock 50

17 Calculate (a) value added by firm X and (b) firm Y from the following data:
(\text{in lakhs})
(i) Sales by firm Y to general government 100
(ii) Sales by firm X 500
(iii) Purchases by households from firm Y 300
(iv) Exports by firm Y 50
(v) Change in stock of firm X 20
(vi) Change in stock of firm Y 10
(vii) Imports by firm X 70
(viii) Sales by firm Z to firm X 250
(ix) Purchases by firm Y from firm X 200

18 There are only two producing sectors A and B in an economy. Calculate:
(a) Gross value added at market price by each sector
(b) National Income
(\text{in crores})
(i) Net factor income from abroad 20
(ii) Sales by A 1,000
(iii) Sales by B 2,000
(iv) Change in stock of B (–) 200
(v) Closing Stock of A 50
(vi) Opening stock of A 100
(vii) Consumption of fixed capital by A and B 180
(viii) Indirect taxes paid by A and B 120
(ix) Purchase of raw materials etc. by A 500
(x) Purchase of raw materials etc. by B 600
(xi) Exports by B 70

19 From the following data, calculate National Income by (a) Income method and (b) Expenditure method:
(\text{in lakhs})
(i) Current transfers from rest of the world 100
(ii) Government final consumption expenditure 1,000
(iii) Wages and salaries 3,800
(iv) Dividend 500
(v) Rent 200
(vi) Interest 150
(vii) Net domestic capital formation 500
(viii) Profits 800
(ix) Employers’ contribution to social security schemes 200
(x) Net exports (–) 50
(xi) Net factor income from abroad (–) 30
(xii) Consumption of fixed capital 40
(xiii) Private final consumption expenditure 4,000
(xiv) Net indirect tax 300

20 From the following data, calculate (a) Gross Domestic Product at Factor Cost and (b) Factor Income to Abroad:

(\text{in 000 crores})

(i) Compensation of employees 800
(ii) Profits 200
(iii) Dividends 50
(iv) Gross national product at market price 1,400
(v) Rent 150
(vi) Interest 100
(vii) Gross domestic capital formation 300
(viii) Net fixed capital formation 200
(ix) Change in stock 50
(x) Factor income from abroad 60
(xi) Net indirect taxes 120

21 Calculate (a) Gross domestic product at market price, and (b) Factor income from abroad from the following data:

(\text{in crores})

(i) Profits 500
(ii) Exports 40
(iii) Compensation of employees 1,500
(iv) Gross national product at factor cost 2,800
(v) Net current transfers from rest of the world 90
(vi) Rent 300
(vii) Interest 400
(viii) Factor income to abroad 120
(ix) Net indirect taxes 250
(x) Net domestic capital formation 650
(xi) Gross fixed capital formation 700
(xii) Change in stock 50

22 Calculate ‘Net Domestic Product at Factor Cost’ by the expenditure method and the production method:

(\text{in crores})

(i) Value of output in the economic territory 4,100
(ii) Net imports (–) 50
(iii) Intermediate purchases by the primary sector 600
(iv) Private final consumption expenditure 1,450
(v) Intermediate purchases by the secondary sector 700
(vi) Government final consumption expenditure 400
(vii) Net domestic fixed capital formation 200
(viii) Intermediate purchases by the tertiary sector 700
(ix) Net change in stocks (–) 50
(x) Indirect taxes 100
(xi) Consumption of fixed capital 50

23 Calculate National Income by (a) expenditure method and (b) production method from the following data:

(a) Expenditure Method (in crores):
(i) Gross value added at market price by the primary sector 300
(ii) Private final consumption expenditure 750
(iii) Consumption of fixed capital 150
(iv) Net indirect taxes 120
(v) Gross value added at market price by secondary sector 200
(vi) Net domestic fixed capital formation 220
(vii) Change in stocks (–) 20
(viii) Gross value added at market price by the tertiary sector 700
(ix) Net imports 50
(x) Government final consumption expenditure 150
(xi) Net factor income from abroad 20

(b) Production Method (in crores):
(i) Gross value added at market price by the primary sector 300
(ii) Private final consumption expenditure 750
(iii) Consumption of fixed capital 150
(iv) Net indirect taxes 120
(v) Gross value added at market price by secondary sector 200
(vi) Net domestic fixed capital formation 220
(vii) Change in stocks (–) 20
(viii) Gross value added at market price by the tertiary sector 700
(ix) Net imports 50
(x) Government final consumption expenditure 150
(xi) Net factor income from abroad 20

24 On the basis of the following data about an economy which constitutes of only two firms, find out:

(a) Value added by firms A and B,
(b) Gross domestic product at factor cost.

(a) in lakhs:
(i) Sales by firm A 300
(ii) Purchases from firm B by firm A 120
(iii) Purchases from firm A by firm B 180
(iv) Sales by firm B 600
(v) Closing stock of firm A 60
(vi) Closing stock of firm B 105
(vii) Opening stock of firm A 75
(viii) Opening stock of firm B 135
(ix) Indirect taxes by both firms 90

(b) in lakhs:
(i) Sales by firm A 300
(ii) Purchases from firm B by firm A 120
(iii) Purchases from firm A by firm B 180
(iv) Sales by firm B 600
(v) Closing stock of firm A 60
(vi) Closing stock of firm B 105
(vii) Opening stock of firm A 75
(viii) Opening stock of firm B 135
(ix) Indirect taxes by both firms 90

25 Frequent traffic-jams, at the peak hours, which result in social wastage, could be avoided by

(a) Widening of roads
(b) Proper traffic lights
(c) All means of transport like metro
(d) All (a), (b) and (c)

26 Give any one product whose production/sale should be totally banned on ethical grounds and why?

27 Explain the role played by the 'law and order situation' in promoting social welfare.

28 Mothers or housewife render services to the family out of sheer love, care and responsibility towards it. Give your opinion on their inclusion or exclusion in the estimation of NI.
29 By providing many services like street lighting, maintenance of law and order etc., which value is observed in the government’s attitude towards the public and why?

30 Production of organic foods is beneficial because they are:
   (a) Health friendly
   (b) Boost happiness
   (c) Better in taste
   (d) All (a), (b) and (c)

31 Mention any one positive externality arising from a morning walk in a park in the neighbourhood.

32 ‘Production of eco-friendly products is beneficial for an economy.’ Examine this fact in the light of real GDP as an indicator of welfare.

MODEL QUESTIONS

CLASS : XII                  SUB: GEOGRAPHY

1. Evaluate the importance of ‘quaternary activities’. 1.
   •
   o Answer
     i. Quaternary activities are advance and specialized economic activities.
     ii. These services concern mainly with information processing, research and development.
     iii. These services offer high income and are mainly concentrated in developed countries and growing fast.
   o 2. Mention any two factors responsible for the establishment of cotton textile mills in Mumbai.
      Chapter: [Manufacturing Industries]
      o Answer
      Factors responsible for establishment of cotton textile mills in Mumbai:
      i. Close proximity to the cotton producing areas of Gujarat and Maharashtra.
      ii. Humid climate
   o 3. State any two advantages of air transport in the International trade.
      Chapter: [International Trade (Part-A)]
      •
      o Answer
Two advantages of air transport in the international trade:
i. Valuable cargo can be moved rapidly on a world-wide scale.
ii. Highly suitable for handling perishable goods over long distances.

4. Why is India a popular tourist destination in the world?

**Chapter**: [Tertiary and Quaternary Activities]

[ Marks: 1 ]

**Answer**

India is a popular tourist destination because of the following reasons
i. Favorable climatic conditions
ii. Heritage homes
iii. Historical places
iv. Scenic landscapes
v. National parks
vi. Medical services, etc.

5. Differentiate between growth and development.

**Chapter**: [Human Development (Part-A)]

[ Marks: 1 ]

**Answer**

<table>
<thead>
<tr>
<th>Growth</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth is quantitative and value neutral.</td>
<td>Development means a qualitative change which is always value positive.</td>
</tr>
<tr>
<td>This means that the change may be either positive or negative.</td>
<td>Development occurs when positive growth take place. It occurs when there is a positive change in quality.</td>
</tr>
<tr>
<td>It may have positive or negative sign.</td>
<td>Development will always be positive.</td>
</tr>
</tbody>
</table>

6. Examine the concept of ‘regional planning’.

**Chapter**: [Planning and Sustainable Development in Indian Context]

[ Marks: 1 ]

**Answer**
Regional planning deals with the efficient placement of land use activities, infrastructure, and settlement growth across a larger area than an individual city or town.

7. State the major problem being faced by Kolkata sea-port.

**Chapter:** [Transport and Communication (Part-B)]

[ Marks: 1 ]

**Answer**

Kolkata port is confronted with the problem of silt accumulation in the Hugli River, which provides a link to the Bay of Bengal.

8. Study the diagram given below and answer the questions that follow:

(i) which class of towns/cities support the largest urban population?

(ii) Explain any two reasons for such a high concentration of population in this class of towns/cities.

Note: The following question is for the Visually Impaired Candidates only, in lieu of the above question:

Explain any three features of urban settlements in India.

**Chapter:** [Human Settlements (Part-B)]

[ Marks: 3 ]

9. “Indiscriminate use of water by increasing population and industrial expansion has led to degradation of the quality of water considerably.” Evaluate the statement.
**Chapter:** [Water Resources]

**Answer**

Increasing population and industrial expansion are responsible for water pollution:
i. An estimated 75% to 80% of water pollution is from domestic sewage, discharged untreated into local water bodies.
ii. Excessive use of fertilizers and pesticides in farming results in water pollution.
iii. Major polluting industries are - leather, pulp, paper, textiles, chemicals, etc.

**10. Differentiate between small scale manufacturing and large scale manufacturing.**

**Chapter:** [Secondary Activities]

[ Marks: 3 ]

**Answer**

<table>
<thead>
<tr>
<th>Small scale manufacturing</th>
<th>Large Scale manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industries use local raw material.</td>
<td>Industries use variety of raw materials brought from far and near.</td>
</tr>
<tr>
<td>Use simple powered machines.</td>
<td>Use advanced technology and work on assembly line production.</td>
</tr>
<tr>
<td>Industries use skilled and semi-skilled labour.</td>
<td>Industries use skilled labour.</td>
</tr>
</tbody>
</table>

**11. “The primitive communities lived in complete harmony with their natural environment and as such the humans were naturalised.” Support the statement.**

**Chapter:** [Human Geography Nature and Scope]

[ Marks: 3 ]

**Answer**

The primitive society live in complete harmony with their natural environment.
i. It is realized that in all such cases nature is a powerful force, worshipped, revered and conserved.

ii. They create possibilities with the resources obtained from the environment.

iii. With Social and Cultural development, humans develop better and more efficient technology.

**12. “Every January after the harvest season ‘Jonbeel Mela’ takes place in Jagiroad, 35 kilometres away from Guwahati and it is possibly the only fair in India, where ‘barter system’ is still alive. A big market is organised during this fair and people from various tribes and**
communities exchange their products.’’ In light of the above paragraph, justify the values of ‘barter system’ in the lives of the tribal communities.

Chapter: [International Trade (Part-A)]

[ Marks: 3 ]

Answer

Values of barter system in the lives of the tribal community:
i. The barter system fosters mutual cooperation and it is very simple system. There is no complex problems due to the present monetary system.
ii. There is less possibility of concentration of wealth in the hands of few people
iii. There is no monopoly in the economy.

13. Describe any three major problems of road transport in the world.

Chapter: [Transport and Communication (Part-A)]

[ Marks: 3 ]

Answer

Major problems of road transport in the world are:
i. Roads are unusable during the time of natural calamity and bad weather conditions.
ii. Road network cannot cope with the demands of traffic as a result congestion occurs.
iii. Road construction requires heavy investment in construction and maintenance.

14. Explain how ‘watershed management’ and ‘rainwater harvesting’ are the methods of efficient management and conservation of surface water resources in India.

Chapter: [Geographical Perspective on Selected Issues and Problems]

[ Marks: 5 ]

Answer

Watershed management:

i. The programme envisages restoring the ecological balance by harnessing, conserving and developing degraded natural resources such as soil, vegetative cover & water through watershed management initiatives.

ii. It prevents runoff, recharges ground water through percolation tanks, recharge wells, etc.

iii. Neeru-Meeru programme in Andhra Pradesh and Arvary Pani Sansad in Rajasthan have taken up construction of various water harvesting structures such as percolation tanks, check dams etc.
Rainwater Harvesting:

i. Traditional rainwater harvesting mainly in rural areas is done by using surface storage bodies like lakes, ponds, irrigation tanks etc.

ii. In Rajasthan rainwater harvesting structures, locally known as kunds or tankas are constructed near or in the house or village to store harvested rainwater. In both urban and rural setting, harvesting can be done by the use of infrastructure.

15. “The non-conventional sources of energy will provide more sustained, eco-friendly and cheaper energy if the initial cost is taken care of.” Examine the statement.

Chapter: [Mineral and Energy Resources] 5

Answer

Non-conventional sources of energy:

i. Non-conventional energy sources are solar energy, wind energy, tidal energy, geothermal energy, biomass, etc.

ii. All these sources are sustainable and are more equitably distributed.

iii. They are eco-friendly and cost effective.

iv. Solar Energy is the most important non-conventional source of energy and it gives non-polluting environment-friendly output and is available in abundant.

v. Wind energy like other non-conventional sources of energy is absolutely pollution free.

vi. Ocean currents are store house of infinite energy.

vii. Biomass energy is also applicable for cooking, lighting, and generation of electricity.

viii. Geothermal energy can successfully be tapped, converted to electrical energy and can be developed as an effective source of energy.

16. Study the following map of the Suez Canal carefully and answer the questions that follow:
(i) Name the country through which this canal passes.

(ii) Name the seas connected by this canal.

(iii) Why is this canal considered a gateway of Europe to the Indian Ocean?

or

(i) In which country has the Suez Canal been constructed?

(ii) Name the sea-ports on either end of this canal.

(iii) Explain the economic significance of this canal to Europe and Asia.

**Chapter:** [Transport and Communication (Part-A)]

[ Marks: 5 ]

**Answer**

(i) Egypt

(ii) Mediterranean Sea and Red Sea

(iii) Gateway of Europe to the Indian Ocean:

1. It is considered a gateway of Europe to the Indian Ocean as it reduces the distance between Europe and Asia;
2. Gives direct sea route distance between Liverpool and Colombo compared to Cape of Good Hope route.
3. It saves time and fuel.