



# DELHI PUBLIC SCHOOL GAYA

(Under the aegis of the Delhi Public School Society, New Delhi)  
Affiliated to C.B.S.E, New Delhi Affiliation No.330530, School Code - 65572

## WINTER VACATION ASSIGNMENT CLASS-X (SESSION: 2023-24)

*Are you looking for some interesting fun learning assignment to make your learning session interesting and engaging? Here in this assignment, you will find some very interesting and engaging tasks that will be fun solving.*

Please click on <https://www.dpsgaya.com/sample-test-paper.php> to access and download the Sample Papers of all the subjects. You have to download/take a print of the sample papers and solve them and submit to the respective subject teachers when the school reopens.

### ENGLISH

1. A. Detachment is not physically renouncing our possessions, profession, home and family as many of us think. It is the ability to let go of all the desires, habits, emotions, thoughts, speech and behaviour patterns that are negative or detrimental to our well-being in any way. Detachment and discrimination are interdependent; they mutually strengthen each other and empower us. The more we are able to discriminate, the more we are able to segregate our harmful desires and discard them. The more mental trash we discard this way, the more we empower our faculty of discrimination.
- B. There is a simple technique we can all practise to strengthen our discrimination and detachment and get rid of unnecessary desires. This will generate the awareness we need to control our senses and mind and make them stop churning out desires every moment. To practise this technique, we should select a quiet place when we have some leisure time.
- C. Sit down with a few sheets of paper and pen or a computer and make two lists. In the first list, understand and write down your most important goal or agenda in this life. Then meticulously add all the other goals that you would like to achieve. While you make this list, you shouldn't think only about yourself. Include what you would like to contribute to the welfare of your dependants, children and their forthcoming generations.
- D. Once you complete this, set it aside and begin the second list. List all your desires here. They may be big or small, important or insignificant, right or wrong, demonic or divine. Just remove the lid on the Pandora's Box and allow them all to spill out freely. Don't try to censor or edit the list of desires at this stage. Complete the list first. After you have made an exhaustive list, go over it to see which of these desires are truly necessary, conducive to your meditation, helpful and favourable to you and beneficial to others.
- E. If you have been serious and honest in doing this exercise, you will have long lists of goals and desires and many of them may be selfish or detrimental to your goal of meditation, visualisation, self-realisation, peace, happiness and bliss. This exercise will help you develop frankness and honesty with yourself. You will touch your true feelings and bring many of your hidden ambitions and desires into the open.

Answer the following questions, based on the passage above.

- i. Why does the writer say that detachment is empowering?
- It makes us let go of our desires.
  - It helps us physically renounce our possessions.
  - It helps us get detached from family and relations.
  - It strengthens our sense of discrimination.
- ii. What are the popular misconceptions about detachment that are dispelled by the author? Rationalise your response in about 40 words.
- iii. Complete the sentence appropriately choosing appropriate words from the passage to complete the author's advice.

The author encourages the readers to 'remove the lid on the Pandora's Box and allow your desires and wishes to spill out freely' \_\_\_\_\_.

- iv. The passage includes some word-pairs that are similar to each other. From the sets (a)-(e) below, identify the word-pair that is the odd one out.
- (a) frankness and honesty  
 (b) goal and agenda  
 (c) censor and edit  
 (d) detachment and discrimination  
 (e) detachment and renunciation
- v. The writer correlates detachment and discrimination and says that we should make serious efforts to strengthen them (Paragraph 2).  
 State the most important outcome of this process.
- vi. Based on your reading of the text, list two reasons why the writer implies that the human mind is full of trash. Answer in about 40 words.
- vii. Evaluate the outcomes given below after completing both the lists of our desires and goals in life. Which of these is not advised by the author and therefore, should not be on the list?
- (a) They contain goals that are truly necessary.  
 (b) They may be censored or edited.  
 (c) They are beneficial to our family and their future generations.  
 (d) They are conducive to mental well-being.
- viii. Supply one point to justify the following.  
 Awareness puts a lid on our mind which keeps churning out desires every moment which can be confusing.
2. The insanitary conditions in your colony are causing multiple diseases. Write a letter in 100-120 words to the Municipal Commissioner bringing the problem to his notice and request him to take urgent action in the matter. You are Deepak/Deepa of C 2/8, Ankur Enclave, New Delhi.
3. You are Rajesh/Rajni Roy of 105 C, Chatterjee Lane, Kolkata. You have received a letter from your brother who is staying in the hostel of Shakti Mandir Public School, Darjeeling, stating that he is being bullied by some senior students who threatened him with dire consequences, if he complains. Write a letter in 100-120 words to the Hostel Warden requesting him to take urgent action.
4. The most important message is that all people have the right to live in freedom just because people may be a different religion or race, doesn't mean that they should be treated differently.  
 Prepare a set of dialogues that happened between Anne Frank and Nelson Mandela based on 'Diary of Anne Frank' and 'A Long Walk to Freedom'. You may begin like this :  
 Anne : I detest the world when they treat people differently on basis of their caste and creed.  
 Mandela : I also faced the same discrimination in my country \_\_\_\_\_.
5. The message of the poem 'The Trees' is that freedom and equality should be for all the living organisms in the world. If you had to use the message of the given quote based on 'The Trees' to understand the state of the Tiger in the Zoo, how will you elaborate it? Also, how it is relevant to both.

## हिन्दी

1. लोकगीत हमें अपनी संस्कृति से जोड़ते हैं। 'तीसरी कसम' फिल्म में लोकगीतों का प्रयोग किया गया है। आप अपने क्षेत्र के प्रचलित दो लोकगीतों को एकत्र कर अपनी उत्तर-पुस्तिका में लिखिए।
2. सैनिक जीवन की चुनौतियों को ध्यान में रखते हुए एक अनुच्छेद लगभग 100 शब्दों में लिखिए।

## SANSKRIT

1. तत्, एतत्, किम्, अस्मद् और युष्मद्, गुणिन् और विद्वस् शब्दरूप लिंगों के अनुसार लिखें और याद करें।  
 \*\*गृहकार्य- पुस्तिका में (Assignment copy) कार्य करें।

**1. Case Study-I**

Quadratic polynomial can be used to model the shape of many architectural structures in the world. Pershing field of Jersey city in US is one such structure



(i) If the Arch is represented by  $10x^2 - x - 3$ , then its zeroes are

- (a)  $\frac{1}{2}, \frac{-3}{2}$  (b)  $\frac{-1}{2}, \frac{3}{5}$   
 (c)  $\frac{-1}{2}, \frac{1}{3}$  (d)  $\frac{-1}{3}, \frac{2}{3}$

(ii) The zeroes of the polynomial are the points where its graph

- (a) Intersect the x-axis (b) Intersect the y-axis  
 (c) Intersect either of the axes (d) Can't say

(iii) The quadratic polynomial whose sum of zeroes is 0 and product of zeroes is 1, is given by

- (a)  $x^2 - x$  (b)  $x^2 + x$   
 (c)  $x^2 - 1$  (d)  $x^2 + 1$

(iv) Which of the following has  $\frac{-1}{2}$  and 2 as their zeroes?

- (a)  $6x^2 - 4x + 6$  (b)  $3x^2 - x + 2$   
 (c)  $2x^2 - 7x + 2$  (d)  $2x^2 - 3x - 2$

(v) The product of zeroes of the polynomial  $\sqrt{3}x^2 - 14x + 8\sqrt{3}$  is

- (a) 4 (b) 6  
 (c) 8 (d) 10

**2. Case Study-II**

Students of residential society undertake to work for the campaign "Say no to Plastics". Group A took the region under the coordinates (3, 3), (6, y), (x, 7) and (5, 6) and group B took the region under the coordinates (1, 3), (2, 6), (5, 7) and (4, 4)



- (i) If region covered by group A forms a parallelogram, where the coordinates are taken in the given order, then
- (a)  $x = 8, y = 4$  (b)  $x = 4, y = 8$   
(c)  $x = 2, y = 4$  (d)  $x = 4, y = 2$
- (ii) Perimeter of the region covered by group A is
- (a)  $\sqrt{10}$  units (b)  $\sqrt{13}$  units  
(c)  $(\sqrt{10} + \sqrt{13})$  units (d) None of these
- (iii) If the coordinates of region covered by group B, taken in the same order forms a quadrilateral, then the length of each of its diagonals is
- (a)  $4\sqrt{2}$  units,  $2\sqrt{2}$  units (b)  $6\sqrt{2}$  units,  $\sqrt{2}$  units  
(c)  $3\sqrt{2}$  units,  $2\sqrt{2}$  units (d) None of these
- (iv) If region covered by group B forms a rhombus, where the coordinates are taken in given order, then the perimeter of this region is
- (a)  $\sqrt{10}$  units (b)  $2\sqrt{10}$  units  
(c)  $3\sqrt{10}$  units (d)  $4\sqrt{10}$  units
- (v) The coordinates of the point which divides the join of points  $P(x_1, y_1)$  and  $Q(x_2, y_2)$  internally in the ratio  $m : n$  is
- (a)  $\left(\frac{mx_2+ny_2}{m+n}, \frac{mx_1+ny_1}{m+n}\right)$  (b)  $\left(\frac{mx_1+ny_1}{m+n}, \frac{mx_2+ny_2}{m+n}\right)$   
(c)  $\left(\frac{mx_2+ny_1}{m+n}, \frac{mx_2+ny_1}{m+n}\right)$  (d) None of these

## PHYSICS

- How many electrons in 1 s constitute a current of 1A?
 

(a)  $6.25 \times 10^{12}$  (b)  $6.25 \times 10^{12}$   
 (c)  $6.25 \times 10^{11}$  (d) 6.25
- When a body is negatively charged by friction, it means :
 

(a) The body has acquired excess of electrons (b) The body has acquired excess of protons  
 (c) The body has lost some electrons (d) The body has lost some neutrons
- If a charged body attracts another body, the charge on the other body :
 

(a) Must be negative (b) Must be positive  
 (c) Must be zero (d) Must be negative or positive or zero
- One ampere equals :
 

(a)  $106\mu\text{A}$  (b)  $10^{-6}\mu\text{A}$   
 (c)  $10^{-3}\mu\text{A}$  (d) 10 mA
- If  $I$  is the current through the wire and  $e$  is the charge of electron, then the number of electrons in  $t$  seconds will be given by –
 

(a)  $Ie/t$  (b)  $e/It$   
 (c)  $It/e$  (d)  $Ite$
- Conventionally, the direction of current is taken as -
 

(a) The direction of flow of negative charges (b) The direction of flow of atoms  
 (c) The direction of flow of positive charges (d) The direction of flow of molecules
- A wire of resistance  $R$  is cut into  $n$  equal parts. These parts are then connected in parallel. The equivalent resistance of combination will be:
 

(a)  $nR$  (b)  $R/n$   
 (c)  $n/R$  (d)  $R/n$
- Three resistances each of  $8 \Omega$  are connected to a triangle. The resistance between any two terminals will be :
 

(a)  $12 \Omega$  (b)  $2 \Omega$   
 (c)  $6 \Omega$  (d)  $16/3 \Omega$

9. In how many equal parts can a wire of  $100 \Omega$  be cut so that the resistance of  $1 \Omega$  is obtained by connecting them in parallel?
  - (a) 10
  - (b) 5
  - (c) 100
  - (d) 50
10. The filament of an electric bulb is made of tungsten because :
  - (a) Its resistance is negligible
  - (b) It is cheaper
  - (c) Its melting point is high
  - (d) Its filament is easily made
11. If a wire of resistance of  $1 \Omega$  is stretched to double its length, then the resistance will become :
  - (a)  $1/2 \Omega$
  - (b)  $2 \Omega$
  - (c)  $1/4 \Omega$
  - (d)  $4 \Omega$
12. What is conventional current?
13. Which of the two is connected in series, ammeter or voltmeter?
14. What will be the potential difference between the terminals of battery if 250 joules of work is required to transfer 20 coulomb of charge from one terminal of the battery to the other?
15. Compare the resistance of two wires of same material. Their lengths are in the ratio 2: 3 and their diameters are in the ratio 1: 2.
16. A cylindrical wire of length 'l' and diameter 'd' is stretched to double its length '2l'. What is the ratio of new resistance to old resistance?
17. If 6A current flows through a conductor, then how many electrons flow through cross sectional area  $HS$ ?
18. Why is ammeter connected in series?
19. What is the work done to move 100 electrons from one end to the other of a battery with a potential difference of 20 V?

## CHEMISTRY

1. Which of the following is not the property of diamond?
  - (a) It is insoluble in all solvents.
  - (b) It is an isomer of graphite.
  - (c) It is purest form of carbon.
  - (d) It is oxidized with a mixture of  $K_2Cr_2O_7$  and  $H_2SO_4$  at  $200^\circ C$ .
2. Total number of non-cyclic structural isomers of  $C_4H_{10}$  are:
  - (a) 5
  - (b) 7
  - (c) 2
  - (d) 4
3. Which of the following pairs is an example of chain isomer?
  - (a)  $CH_3-CH_2-OH$  and  $CH_3OCH_3$
  - (b)  $CH_3-CH_2-CHO$  and  $CH_3-CO-CH_3$
  - (c)  $CH_3-CH_2-CH_2CH_2CH_3$  and  $CH_3-CH-CH_2-CH_3$   $CH_3$
  - (d) All the above.
4. Which of the following is a functional isomer of  $CH_3-COOH$ ?
  - (a)  $CH_3-CH_2-OH$
  - (b)  $CH_3-C-CH_3$
  - (c)  $H-C-OCH_3$
  - (d) All of these
5. Isomers have -
  - (a) Same molecular formula and same structure.
  - (b) Different molecular formula and different structure.
  - (c) Same molecular formula and different structure.
  - (d) Different molecular formula and same structure.
6. The number of C-H bonds in ethane ( $C_2H_6$ ) molecule:
  - (a) Four
  - (b) Six
  - (c) Eight
  - (d) Ten
7. Which of the following is/are saturated hydrocarbon?
  - (a)  $C_2H_6$
  - (b)  $C_2H_4$
  - (c)  $C_2H_5$
  - (d) All of these

8. The IUPAC name of the compound having the formula  $(\text{CH}_3)_3\text{CCH}=\text{CH}_2$  is:  
 (a) 3,3,3-trimethyl-1-propane (b) 1,1,1-trimethyl-1-butene  
 (c) 3,3-dimethyl-1-butene (d) 1,1-dimethyl-1,3-butene
9. IUPAC name of second member of homologous series of carboxylic acids is:  
 (a) Methanoic acid (b) Ethanoic acid  
 (c) Propanoic acid (d) Butanoic acid
10. Which of the following gives ethane when heated with conc. Sulphuric acid?  
 (a)  $\text{CH}_3\text{CHO}$  (b)  $\text{CH}_3\text{COOH}$   
 (c)  $\text{CH}_3\text{OH}$  (d)  $\text{CH}_3\text{CH}_2\text{OH}$
11. Cleansing action of soaps include:  
 (a) Formation of micelles. (b) Emulsification of oil or grease.  
 (c) Lowering of surface tension of water. (d) All of the above.
12. Give the chemical reaction involved in the preparation of soap?
13. What happens when a small piece of sodium is dropped into ethanol?
14. Write the formula of the following:  
 (a) Simplest ketone  
 (b) Next higher homologue of butanoic acid  
 (c) Acetic acid  
 (d) n-butyl alcohol.
15. What are saturated hydrocarbons? Give one example?
16. Name one electrovalent and one covalent compound containing chlorine?
17. Name a carbon containing molecule in which two double bonds are present?

## BIOLOGY

1. A cross between two individuals results in a ratio of 9 : 3 : 3 : 1 for four possible phenotypes of progeny is called?  
 (a) Dihybrid cross (b) Monohybrid cross  
 (c) Test cross (d) None of these
2. The science of heredity is known as:  
 (a) Biology (b) Embryology  
 (c) Genetics (d) Biochemistry
3. A plant with two 'small' genes breeds with a plant with two 'tall' genes to produce:  
 (a) Small plants and tall plants in the ratio 1 : 3  
 (b) All small plants  
 (c) All tall plants  
 (d) Tall plants and small plants in the ratio 3 : 1
4. Which of the following may be used to obtain generation?  
 (a) Allowing flowers on a parent plant to be self-pollinated  
 (b) Allowing flowers on an plant to be self-pollinated  
 (c) Cross-pollinating plant with a parent plant  
 (d) Cross-pollinating two parent plants
5. A Mendelian experiment consisted of breeding tall pea plants bearing violet flowers with short pea plants bearing white flowers. The progeny all bore violet flowers, but almost half of them were short. This suggests that the genetic make-up of the tall parent can be depicted as  
 (a) TTWW (b) TTww  
 (c) TtWW (d) TtWw
6. Photosynthesis takes place  
 (a) Only in green light (b) Only in sunlight  
 (c) In visible light obtained from any source (d) Only in high intensity of light
7.  $\text{C}_{55}\text{H}_{70}\text{O}_6\text{N}_4\text{Mg}$  is  
 (a) An accessory pigment in photosynthesis (b) Present in PS-II  
 (c) Present in all green plants (d) All of these

8. During light phase of photosynthesis \_\_\_\_\_ is oxidized and \_\_\_\_\_ is reduced.  
(a) CO<sub>2</sub> and Water (b) Water and CO<sub>2</sub>  
(c) Water and NADP (d) NADPH<sub>2</sub> and CO<sub>2</sub>
9. \_\_\_\_\_ are placed one above the other to form stack of coins  
(a) Oxysomes (b) F1 particles  
(c) Cristae (d) Thylakoids
10. The number of pairs of nerves which arises from the spinal cord is:  
(a) 21 (b) 31  
(c) 41 (d) 51
11. The spinal cord originates from:  
(a) Cerebrum (b) Cerebellum  
(c) Medulla (d) Pons
12. All the voluntary actions of our body are controlled by:  
(a) Cerebrum (b) Cerebellum  
(c) Pons (d) Medulla
13. The junction between two adjacent neurons is called:  
(a) Nerve junction (b) Sensory junction  
(c) Synapse (d) Neuro-muscular joint
14. Asexual reproduction through budding take place in:  
(a) Amoeba and Yeast (b) Yeast and Hydra  
(c) Hydra and Plasmodium (d) Corals and Sponges
15. The ability of a cell to divide into several cells during reproduction in Plasmodium is called:  
(a) budding (b) fragmentation  
(c) binary fission (d) multiple fission
16. In Rhizopus fungus, the final thread-like structures spread on the whole surface of slice of bread are called:  
(a) rhizoids (b) stems  
(c) roots (d) hyphae
17. The Bishnoi community of Rajasthan is associated with the conservation of:  
(a) Coal and Petroleum (b) Forests and wildlife  
(c) Water resources (d) Abiotic environment
18. One of the following is not a direct stakeholder in the management (or conservation) of forests. This is:  
(a) The people who have paper mills  
(b) The people who run the forest department  
(c) The people who campaign for the conservation of forests  
(d) The people who run the forest department
19. Extensive planting of trees to increase forest cover is called:  
(a) Deforestation (b) Social forestry  
(c) Agro forestry (d) Afforestation
20. Arabari forest of Bengal is dominated by:  
(a) Teak (b) Sal  
(c) Bamboo (d) Mangrove

## SOCIAL SCIENCE

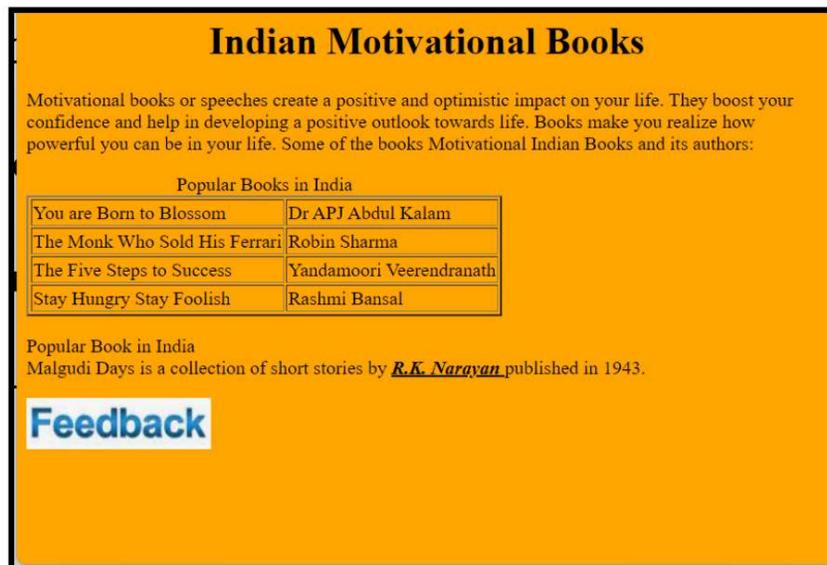
1. Explain any three causes of conflict in the 'Balkan area after 1871.
2. Explain four types of resources based on ownership and give one example of each type.
3. What makes India a Federal Country?
4. Demarcate the following on an outline map of India:
  - (a) Congress session 1920 (Calcutta and Nagpur)
  - (b) Congress session 1927 Madras
  - (c) Satyagraha movement Kheda, Champaran, Ahmedabad
  - (d) Major soil types
  - (e) Iron Ore mines

	Mayurbhanj	Durg
	Bailadila	Bellary
	Kudremukh	
(f)	Coal Mines	
	Raniganj	Bokaro
	Talcher	Neyveli
(g)	Oil Fields	
	Digboi	Naharkatia
	Mumbai High	Bassien
	Kalol	Ankaleshwar
	Locate & label: Power Plants	
(h)	Thermal	Namrup
	Singrauli	Ramagundam

## COMPUTER APPLICATIONS

1. What is a Hypertext link? Give the name and the syntax for the HTML tag which is used for creating a Hypertext Link.
2. "CSS is the most popular choice for the web developers these days". Write any four advantages of CSS.
3. Write the difference between <dt>and <dd>tags.
4. "Plagiarism is a major problem in the world now a days". What do mean by plagiarism? Write any two steps to avoid plagiarism.
5. Consider the URL:https://www.shiskha.com and answer the following questions:
  - (a) What does .com suggest?
  - (b) Which component identifies the type of protocol?
  - (c) What is the significance of "s" in https?
6. Write the equivalent inline CSS for the following HTML tag.
  - (a) <body bgcolor="green">
  - (b) 
7. Explain the concept of Submit and Reset buttons in HTML forms.
8.
  - (a) Write an external CSS code snippet to set all four margins of the body tag with 5px each.
  - (b) Write an inline CSS code to set the background color for the first level heading as 'green' containing the text "My CA Exam".
9. Mr. Amit is a new Internet User. You, being, his friend, suggest him some tips which he should follow while using the internet.
10. Write any two differences between proprietary and open-source software.
11. Write the difference between alink and vlink. Write an HTML statement to illustrate the usage of these 2 attributes.
12. Define E-Commerce. Name any 2 issues related to privacy in e-commerce.

13. Write the HTML code to design the web page as shown below, considering the specifications that follow. You can write code for any 4 specifications out of the given 5 specifications:



**Specification-1:** Title of the web page is "Motivational Books" and the heading of level -1 at the middle of the webpage is "Indian Motivational Books".

**Specification-2:** The caption of the table is "Popular Books in India"

**Specification-3:** The tabular data of 4 rows and 2 columns is with border size as 2.

**Specification-4:** The content "R.K.Narayan" is Bold, Italics and Underline

**Specification-5:** The image "fdbk.jpg" at the end will give feedback on the email [sendfeedback@me.com](mailto:sendfeedback@me.com)

14. Naveen went to an interview for the post of web developer. In the technical test, he was supposed to design an HTML table as given below. Help him to complete the table with the right statements in the blanks. Observe the table and attempt any four questions (out of 5) given after the table).

Futuristic Time Table

Period-No	Monday	Wednesday	Friday
1	Robotics	NLG	NLU
2		Data Science	Sound
3	Light	Machine Learning	
4	Speed		Velocity

```

<HTML>
<HEAD>
  <TITLE> Table Concept </TITLE>
</HEAD>
<BODY>
  <Table _____ =2> _____ <!-- STATEMENT-1>
  < _____ > Futuristic Time Table</ _____ > <!-- STATEMENT-2>
  <tr>
    <th> Period-No </th>
    <th> Monday </th>
    <th> Wednesday </th>
    <th> Friday </th>
  </tr>
  <tr>
    <td> 1 </td>
    <td _____ =2> Robotics </td> <!-- STATEMENT-3>
    <td> NLG </td>
    <td> NLU </td>
  </tr>
  <tr>
    <td> 2 </td>
    <td> Data Science </td>
    <td> Sound </td>
  </tr>
  <tr>
    <td> 3 </td>
    <td> Light </td>
    <td _____ =2> Machine Learning </td> <!-- STATEMENT-4>
  </tr>
  <tr>
    <td> 4 </td>
    <td> Speed </td>
    <td></td>
    <td> Velocity </td>
  </tr>
  <!-- STATEMENT-5>
  _____
  _____
  _____

```

- (a) Write the attribute value to complete Statement-1 to achieve the output given in the above table.
- (b) Write suitable option for the blanks given in Statement-2.
- (c) Write the appropriate answer for the blank given in Statement-3
- (d) Write the appropriate answer for the blank given in Statement-4
- (e) What will be the complete sequence of closing the above html document in statement 5?

-----X-----