ARMY PUBLIC SCHOOL GWALIOR
CLASS - X
ACADEMIC SESSION 2021-22
WORKSHEET (SELF –ASSESSMENT)

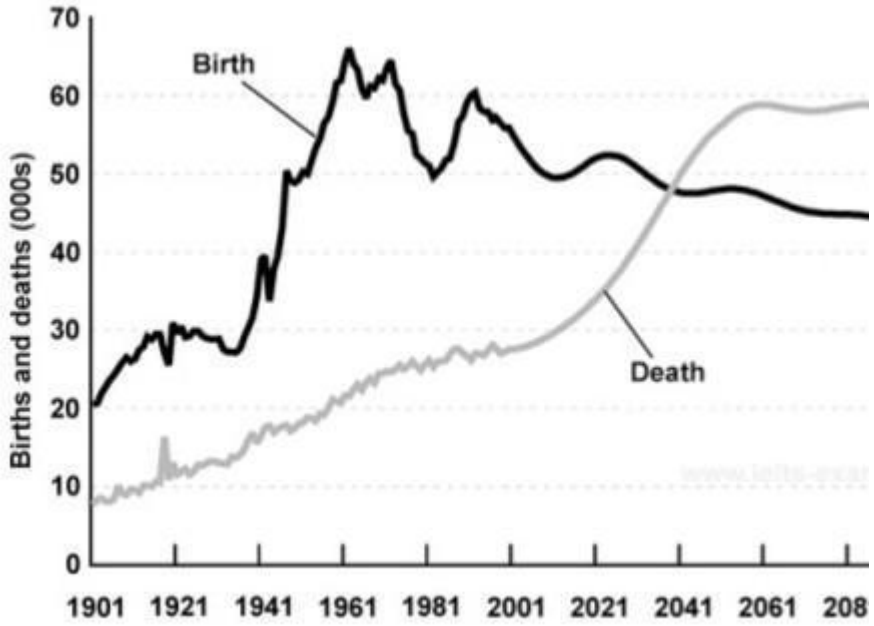
Subject: English **Assignment No. : 12**

Allotment Date: 12 March 2022

S. No.	QUESTIONS	MARKS	NATURE
1	**SECTION A- READING [10M]** Read the passage carefully given below. [ANY FIVE] The choices we make on a daily basis—wearing a seat belt, lifting heavy objects correctly or purposely staying out of any dangerous situation—can either ensure our safety or bring about potentially harmful circumstances. You and I need to make a decision that we are going to get our lives in order. Exercising self-control, self-discipline and establishing boundaries and borders in our lives are some of the most important things we can do. A life without discipline is one that's filled with carelessness. We can think it's kind of exciting to live life on the edge. We like the image of "Yeah! That's me! Living on the edge! Woo-hoo!" It's become a popular way to look at life. But if you see, even highways have lines, which provide margins for our safety while we're driving. If we go over one side, we'll go into the ditch. If we cross over the line in the middle, we could get killed. And we like those lines because they help to keep us safe. Sometimes we don't even realize how lines help to keep us safe. I'm not proud of this, but for the first 20 years of my life at work, I ignored my limits. I felt horrible, physically, most of the time. I used to tell myself "I know I have limits and that I've reached them, but I'm going to ignore them and see if or how long I can get by with it." I ran to doctors, trying to make myself feel better through pills, vitamins, natural stuff and anything I could get my hands on. Some of the doctors would tell me, "It's just stress." That just made me mad. I thought stress meant you don't like what you do or can't handle life, and I love what I do. But I kept pushing myself, travelling, doing speaking engagements and so on— simply exhausting myself. Finally, I understood I was living an unsustainable life and needed to make some changes in my outlook and lifestyle. Based on your understanding of the passage, answer <u>ANY FIVE</u> questions from the six given below.	**5M**	Understanding

	a)Why has 'living on the edge' become popular? b)What things are important for a disciplined life? c)Explain the phrase 'potentially harmful circumstances'. d)What is the message conveyed in the last paragraph of the passage? e)Find the word from the passage which means the same as 'temporary'? f)Find two colloquial words used in the passage.		
2	**Read the passage given below.** **Read the following excerpt from a case study titled "Demographic Change in Tribal Habitats".** It is a demographic change nobody would celebrate. About 55 per cent of the country's tribal population now resides outside their traditional habitats. It is known that migration of tribal population, increasingly distress-driven, has been increasing. But the recently-released Tribal Health in India report by the Union Ministry of Health and Family Welfare has brought out some worrying aspects to this known development. More than half the country's 104 million tribal population now resides outside India's 809 tribal majority blocks. To support this fundamental change in tribal habitation, the report cites the Census 2011 that found a 32 per cent decline in the number of villages with 100 per cent tribal population between 2001 and 2011. "There is a movement of tribal people from tribal to non-tribal areas, possibly in search of livelihood and educational opportunities," says the report. But it is insistent on a livelihood crisis that is triggering this exodus. India's tribal population is over-dependent on agriculture and forest-related livelihood sources. While 43 per cent of non-tribals depend on agriculture, 66 per cent of the tribal population survives on these primary sector livelihood sources. But in recent decades, the number of tribal farmers is coming down, and more are becoming agricultural labourers. In the past decade, 3.5 million tribals have quit farming and other related activities. Between 2001 and 2011 census reports, the number of tribal cultivators reduced by 10 per cent while number of agricultural labourers increased by 9 per cent. This indicates a declining return from direct farming or people simply don't have the resources to do farming. In the absence of no other alternative, they are joining the informal labour force. "Displacement and enforced migration has also led to an increasing number of Scheduled Tribes working as contract labourers in the construction industry and as domestic workers in major cities. Currently, one of every two tribal households relies on manual labour for survival," says the report. **Distribution of Scheduled Tribe population by States- 2011** **Name of State** | **% of Distribution Tribe**	**5M**	Analytical

		Madhya Pradesh	14.7		
		Maharashtra	10.1		
		Odisha	9.2		
		Rajasthan	8.9		
		Gujrat	8.6		
		Jharkhand	8.3		
		Chhattisgarh	7.5		
		Andhra Pradesh	5.7		
		West Bengal	5.1		
		Karnataka	4.1		
		Assam	3.7		
		Meghalaya	2.5		
		Other	11.6		
	Q 2. On the basis of your understanding of the passage, answer <u>ANY FIVE</u> questions from the <u>SIX</u> given below. Q 1. What is the percentage of tribal population residing outside the traditional habitats? Q 2. Why there is a movement of tribal people from tribal to non-tribal areas? Q 3. How many tribals have quit farming and related activities between 2001 and 2011 census report and what is the percentage of tribal cultivators and agriculture labourers have decreased or increased? Q 4. What has led to a rise in the number of tribal population working as contract labourers? Q 5. According to the data provided, which states has, above one-tenth of the tribal population? Q 6. According to the data provided, which state has the second largest and the second lowest tribal population?				
3	**SECTION-B WRITING & GRAMMAR [10M]** Below is a graph given showing birth and death rates in a country from 1901 to 2101. Write an analytical paragraph in about 120 words.			**5M**	Communication

			
4	The following paragraph has not been edited. There is one error in each line. Identify the error and write its correction against the correct blank number. Error Correction Only those who work hard gets glory and success in life. E.g. __ __ Nothing great could be achieved without effort. (a)____ ____ A student can never comes out with flying colours unless he(b)__ ___ Has really worked hard throughout a year © _____ _____	**3M**	Critical Thinking
5	Read the conversation between Raghav and Ravi and complete the passage that follows. Raghav: Ravi, Varun and I are going to watch the cricket match tomorrow. Would you like to join us? Ravi: I would love to, but I have to take my father's permission first. Raghav: You must let me know by this evening because I have to arrange for the passes. Ravi: I will do so as soon as I get permission. Raghav informed Ravi that Varun and he were going to watch the cricket match the next day.He asked Ravi (a) _____ . Ravi replied that he would love to, but he had to take his father's permission first. Raghav told him (b) _____ because he had to arrange for the passes. Ravi said that he would do so as soon as he would get permission.	**2M**	Interdisciplinary
6	**SECTION C- LITERATURE [20M]** **Answer the following questions in 40-50 words: [ANY SIX]** 1. What did the bakers wear in the Portuguese days, and when the author was young? 2. Notice the use of the word 'turn' in the first line, "I think I could turn and live with animals…".What is the poet turning from?	**2x6=12**	Evaluation

	3. How old do you think Amanda is? How do you know this? 4. Why did Custard cry for a nice safe cage? Why is the dragon called “cowardly dragon”? 5. Which qualities are common in all three characters of the play ‘The Proposal’? 6. Do you think Richard’s mother was too indulgent when she bought him cameras,telescopes,microscopes? Give two reasons to support your answer. 7. Mention two things you would have done,other than what M Loisel did, to help resolve the problem of the lost necklace.		
7	**Answer the following questions in 100-120 words: [ANY TWO]** 1. The author describes the things that Valli sees from an eight-year-old’s point of view. Can you find evidence from the text for this statement? 2. Lomov and Natalya have a complex relationship. Reflecting upon their character traits, develop a conversation between Natalya and Chubokov where they are discussing about Natalya’s future husband. 3. “Mother is the first teacher of a child”. Evaluate the quote given above in the light of contribution of Richard Ebright’s mother in ‘making him a scientist’	**2x4=8**	HOT

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CLASS - X
ACADEMIC SESSION 2021-22
WORKSHEET (SELF –ASSESSMENT)

Subject: Hindi **Assignment No. : 12**

Allotment Date: 12 March 2022

S. NO.	QUESTIONS	MARKS	NATURE
1	**(क)-** कवि ने सबको एक होकर चलने की प्रेरणा क्यों दी है? मनुष्यता कविता के आधार पर स्पष्ट कीजिए। **(ख)-** झरने किसके गौरव का गान कर रहे हैं? बहते हुए झरने की तुलना किससे की गई है?	**2** **2**	Information
2	**'कर चले हम फ़िदा' कविता की प्रासंगिकता स्पष्ट कीजिए।**	**4**	Analytical Skill
3	**निम्नलिखित प्रश्नों के उत्तर दीजिए** **(क)-** स्काउट परेड करते समय लेखक अपने को महत्त्वपूर्ण 'आदमी' फ़ौजी जवान क्यों समझने लगता था? **(ख)- दस अक्तूबर सन पैंतालीस का दिन टोपी के जीवन में क्या महत्त्व रखता है?**	**3** **3**	Evaluation

4	**निम्नलिखित में से किसी एक विषय पर संकेत बिंदुओं के आधार पर 150 शब्दों में अनुच्छेद लिखिए।** **(क)- समाचार-पत्र एक : लाभ अनेक** **संकेत बिंदु** • जिज्ञासा पूर्ति का सस्ता एवं सुलभ साधन • रोज़गार का साधन • समाचार पत्रों के प्रकार • जानकारी के साधन । **अथवा** **(ख) सुरक्षा का आवरण ओजोन :** **संकेत बिंदु** • ओजोन परत क्या है? • मनुष्य की प्रगति और ओजोन परत • ओजोन नष्ट होने का कारण • ओजोन बचाएँ जीवन बचाएँ।	**6**	Critical Thinking and Problem Solving
5	**(क)-** अपनी शैक्षिक एवं अन्य उपलब्धियों का उल्लेख करते हुए अपने विद्यालय के प्रधानाचार्य को प्रार्थना देने छात्रवृत्ति जिसमें लिखिए पत्र-का उल्लेख किया गया हो। **अथवा**	**5**	Communication Skills

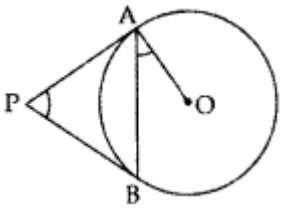
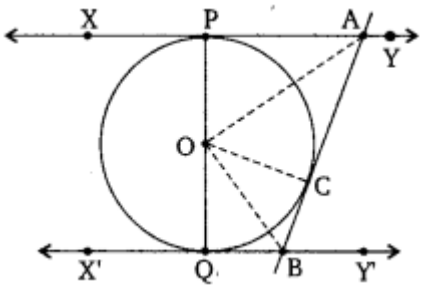
	(ख) आप 29/5 संस्कार अपार्टमेंट, सेक्टर-14 रोहिणी, दिल्ली के निवासी हैं। आप चाहते हैं कि लोग दीपावली में पटाखों का कम से कम प्रयोग करें। पटाखों से होने वाली हानियों से अवगत कराते हुए नवभारत टाइम्स के संपादक को पत्र लिखिए।		
6	**निम्नलिखित प्रश्नों के उत्तर दीजिए**। (**क)** आपकी *कॉलोनी* में रियायती दर पर हेपेटाइटिस का लगवाने इंजेक्शन के बी-पनीअ है। गया लिया द्वारा दिल्ली बाग पंजाबी क्लब लायंस सदर निर्णय *कॉलोनी* के सूचनापट्ट पर लिखने के लिए एक सूचना आलेख तैयार कीजिए। आप *कॉलोनी* विकास समिति के सचिव हैं। **(ख)** आपके विद्यालय में परीक्षाएं शुरू होने वाली हैं। इससे विद्यालय के समय में परिवर्तन किया जा रहा है। विद्यालय की हेड गर्ल की सूचना एक से तरफ कीजिए तैयार आलेख	**2.5** **2.5**	Communication Skills
7	**निम्नलिखित प्रश्नों के उत्तर दीजिए** (**क)** आपके मित्र फूलों से बनी वस्तुओं-गुलदस्ते, हार, मालाएँ, बुके आदि की बिक्री बढ़ाना चाहता है। उसकी मदद के लिए एक विज्ञान तैयार कीजिए। **(ख)** 'पवन' पंखा बनाने वाली कंपनी अपने पंखों की बिक्री बढ़ाना चाहती है। आप उसके लिए एक आकर्षक विज्ञापन तैयार कीजिए।	**2.5** **2.5**	Interdisciplinary
8	**निम्नलिखित में से किसी एक विषय पर 120 शब्दों में** लघुकथा **लिखिए।** *लालच बुरी बला है* **अथवा** *ले डूबती* **है** *आपस* **की** *शत्रुता*	**5**	Critical Thinking and Problem Solving

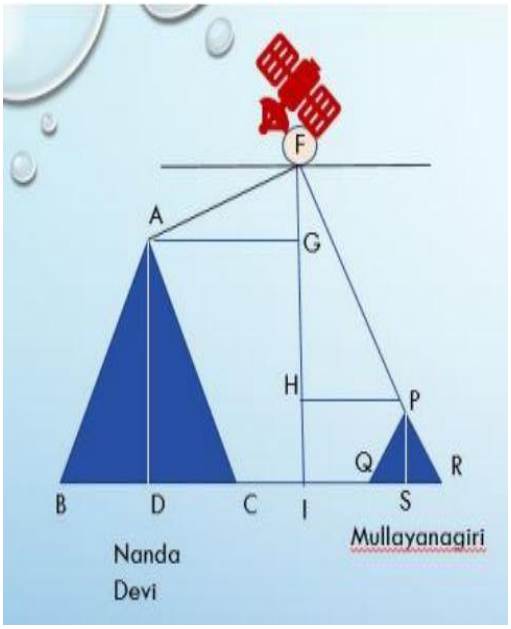
ARMY PUBLIC SCHOOL GWALIOR
CLASS - X
ACADEMIC SESSION 2021-22
WORKSHEET (SELF –ASSESSMENT)

Subject: Mathematics **Assignment No. : 12**

Allotment Date: 12 March 2022

<table>
<tr><th>S. NO.</th><th>QUESTIONS</th><th>MARKS</th><th>NATURE</th></tr>
<tr><td>1</td><td>Find two consecutive positive integers, the sum of whose squares is 365.
OR
Solve the quadratic equation $2x^2 - 7x + 3 = 0$ by using quadratic formula.</td><td>2</td><td>Understanding</td></tr>
<tr><td>2</td><td>Find the number of solid spheres, each of diameter 6 cm that can be made by melting a solid metal cylinder of height 45 cm and diameter 4 cm
.</td><td>2</td><td>Application</td></tr>
<tr><td>3</td><td>The width of 50 leaves of a plant were measured in mm and their cumulative frequency distribution is shown in the following table. Make frequency distribution table for this
<table><tr><td>Width (in mm)</td><td>≥20</td><td>≥30</td><td>≥40</td><td>≥</td></tr><tr><td>Cumulative frequency</td><td>50</td><td>44</td><td>28</td><td>2</td></tr></table></td><td>2</td><td>Interdisciplinary</td></tr>
<tr><td>4</td><td>If the 3rd and the 9th terms of an A.P. are 4 and − 8 respectively, then which term of this A.P is zero.</td><td>2</td><td>Application</td></tr>
<tr><td>5</td><td>The Median of the following distribution is 35.Find the value of x:
<table><tr><td>Class Interval</td><td>0–10</td><td>10–20</td><td>20–30</td><td>30–40</td></tr><tr><td>Frequency</td><td>2</td><td>3</td><td>x</td><td>6</td></tr></table></td><td>2</td><td>Evaluation</td></tr>
</table>

6	**In the given figure, PA and PB are tangents to the circle with centre O. If ∠APB = 60°, then calculate ∠OAB,**  **OR** **A chord of a circle of radius 10 cm subtends a right angle at its centre. Calculate the length of the chord (in cm).**	**2**	**Analytical Thinking**
7	**Find the sum of the first 22 terms of an AP in which *d* = 7 and 22nd term is 149.**	**3**	**Evaluation**
8.	**The angles of depression of the top and bottom of a 50 m high building from the top of a tower are 45° and 60° respectively. Find the height of the tower and the horizontal distance between the tower and the building,** **OR** **A man standing on the deck of a ship, which is 10 m above water level, observes the angle of elevation of the top of a hill as 60° and the angle of depression of the base of hill as 30°. Find the distance of the hill from the ship and the height of the hill.**	**3**	**CRITICL THINKING Evaluation**
9	**In figure, XY and X'Y' are two parallel tangents to a circle , x with centre O and another tangent AB with point of contact C intersecting XY at A and X'Y' at B. Prove that ∠AOB = 90°.**  	**3**	**Analytical thinking**
10	**If -5 is a root of the quadratic equation $2x^2 + px – 15 = 0$ and the quadratic equation $p(x^2 + x) + k = 0$ has equal roots, find the value of k.**	**3**	**Problem solving**
11	**Draw a line segment AB of length 8 cm. Taking A as centre, draw a circle of radius 4 cm and taking B as centre, draw another circle of radius 3 cm. Construct tangents to each circle from the centre of the other circle.** **OR** **Construct a tangent to a circle of radius 4 cm from a**	**4**	**Evaluation**

	point on the concentric circle of radius 6 cm.		
12.	**Find the mode of the following frequency distribution:** **Class** | **0–6** | **6–12** | **12–18** | **18–24** **Frequency** | **7** | **5** | **10** | **12**	**4**	**Interdisciplinary**
13	**Case study based question 1** **A Satellite flying at height h is watching the top of the two tallest mountains in Uttarakhand and Karnataka, them being Nanda Devi(height 7,816m) and Mullayanagiri (height 1,930 m). The angles of depression from the satellite, to the top of Nanda Devi and Mullayanagiri are 30° and 60° respectively. If the distance between the peaks of the two mountains is 1937 km, and the satellite is vertically above the midpoint of the distance between the two mountains.**  **a Find the distance of the satellite from the top of Nanda Devi is** **b. Find the distance of the satellite from the top of Mullayanagiri**	**2+2**	**Interdisciplinary**

14	**CASE STUDY QUESTION 2** **On a Sunday, your Parents took you to a fair. You could see lot of toys displayed, and you wanted them to buy a RUBIK's cube and strawberry ice-cream for you. Observe the figures and answer the questions:-** **a Find the length of the diagonal if each edge measures 6cm** **b What is the curved surface area of hemisphere (ice cream) if the base radius is 7cm?**		**Interdisciplinary**

ARMY PUBLIC SCHOOL GWALIOR
CLASS - X
ACADEMIC SESSION 2021-22
WORKSHEET (SELF –ASSESSMENT)

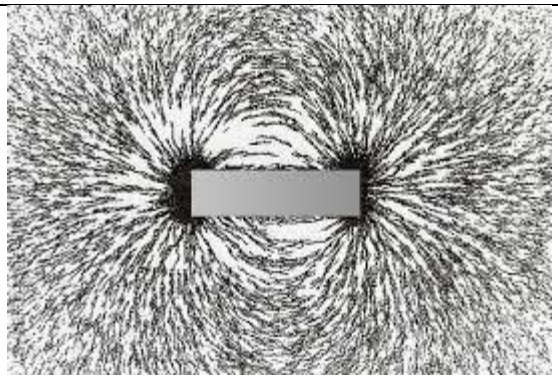
Subject: Science **Assignment No. : 12**

Allotment Date: 12 March 2022

S. NO.	QUESTIONS	MARKS	NATURE
1	Q1. Draw a schematic diagrams of an electric circuit comprising of 3 cells and an electric bulb, ammeter, plug-key in the ON mode and another with same components but with two bulbs in parallel and a voltmeter across the combination. Q2.Name the organs producing sperms and ova respectively in humans. Q3.Choose an element from period 3 of modern periodic table that matches the description given below in each instance. Give reason for your choice. (a) It has a similar structure to diamond. (b) It has variable valency and is a member of oxygen family.	2 2 2	Information
2	Q4. A 9Ω resistance is cut into three equal parts and connected in parallel. Find the equivalent resistance of the combination. Q5.In an experiment, Mendel obtained 1014 plants out of which 787 were having round seeds and 227 had wrinkled seeds in F2 generation. a. What is the approximate ratio obtained in F2 generation? Under which law of Mendel do you find this ratio? b. Why is this law so called? Q6.(a) How many isomers are possible for the compounds with molecular formula C_4H_8? Draw electron dot structure of branched chain isomer. (b) How will you prove that C_4H_8 and C_5H_{10} are homologous?	2 2 2	Understanding
3	Q7. Define a solenoid. Compare the magnetic field produced by a solenoid with that of a bar magnet? Q8. What is electromagnetic induction? Explain how the movement of a magnet towards or away from a coil carrying a galvanometer produce current? Write the rule to find the direction of current in this above coil.	2 3	HOT
4	Q9. What is meant by electrical resistivity of a material? Derive its S.I. unit. Describe an experiment to study the factor on which the resistance of a conducting wire depends**.** Q10.List the changes in habit that people must adopt to dispose non-biodegradable waste, for saving, the environment,	3 3	Interdisciplinary

<table>
<tr>
<td>5</td>
<td>Q11.Shivani tried to cross a homozygous purple flower variety of pea plant (PP) with white flower variety of pea plant(pp). Mention the phenotype and genotype of the F_1 generation of off springs. If the off springs of the F_1 generation are self bred. What will be the phenotypic and genotypic ratios of the F_2 generation? State Mendel's law of dominance.
Q12. Study the data of the following three categories A, B and C.
<table>
<tr><th>Category</th><th>Name of the element</th><th>Atomic mass</th></tr>
<tr><td rowspan="3">A</td><td>Li</td><td>7</td></tr>
<tr><td>Na</td><td>23</td></tr>
<tr><td>K</td><td>39</td></tr>
<tr><td rowspan="3">B</td><td>N</td><td>14</td></tr>
<tr><td>P</td><td>31</td></tr>
<tr><td>As</td><td>74</td></tr>
<tr><td rowspan="3">C</td><td>B</td><td>10.8</td></tr>
<tr><td>Al</td><td>27</td></tr>
<tr><td>Ga</td><td>69.7</td></tr>
</table>
(i) From the given three categories A, B and C, pick the one which forms Dobereiner's Triads.
(ii) Why did Mendeleev placed elements of category A, B and C in three different groups?
(iii) Is Newland law of octaves applicable to all the three categories?
Give reason to justify your answer.</td>
<td>3

3</td>
<td>Analytical Skill</td>
</tr>
<tr>
<td>6</td>
<td>Q13. Three elements 'X', 'Y' and 'Z' have atomic numbers 7,8 and 9, respectively.
(a) Arrange these elements in the decreasing order of their atomic radii.
(b) State their position (group and period number) in the modern periodic table.
(c) Write the formula of the compound formed when 'X' combined with 'Z'.</td>
<td>3</td>
<td>Critical Thinking and Problem Solving</td>
</tr>
<tr>
<td>7</td>
<td>Q14. Michael Faraday was an experimental physicist. He introduces the concept of the magnetic line of force to represent a magnetic field visually. According to his experiment, when bar magnet is surrounded by little bits of iron filings, each a little magnet of its own. By tapping the surface, the iron filings arrange themselves in a particular pattern. They respond to an unseen presence— what Faraday called it "lines of force." The following sketch shows the lines of force due to a bar magnet on the accumulated action on little iron filings.</td>
<td>4</td>
<td>Evaluation</td>
</tr>
</table>

	 a. What does the degree of closeness of magnetic field lines near the poles signify? b. What happens if a bar magnet is cut into two pieces along its length? c. i. Draw a diagram indicating uniform magnetic field. ii. What is the direction of magnetic field lines outside a bar magnet? Q.15In a cross between plants with purple flowers and plants with white flowers, the F_1generation had all purple flowers. When F_1 generation was self-bred, the F_2 generation gave rise to 100 individuals, 75 of which had purple flowers. Make a cross and answer. (a) What is the ratio of purple flowered plants in F_2 generation? (b) What are the genotypes of F_2 individuals? (c) If F_2 generation gave rise to 400 individuals, how many flowers would be pure homozygous? Give the genotype of these plants.	4	

ARMY PUBLIC SCHOOL GWALIOR
CLASS - X
ACADEMIC SESSION 2021-22
WORKSHEET (SELF –ASSESSMENT)

Subject: Social Science **Assignment No. : 12**

Allotment Date: 12 March 2022

S. NO.	QUESTIONS	MARKS	NATURE
1	Write any two limitations of CDM.	2	Information
2	Why is iron and steel industry called the basic industry ? Explain.	2	Understanding
3	Explain any two features each of formal sector loans and informal sector loans .	2	Understanding
4	Write a short note on growth of regional political parties in India.	2	Knowledge
5	Explain reasons for dense railway network in the North Indian Plains?	2	Knowledge

6	State any three factors responsible for the growth of nationalism in India .	**3**	Knowlegde
7	What are the suggestions often made to reform political parties?	**3**	Understanding
8	In what ways does the Reserve bank of India supervise the functioning of banks ?	**3**	Information
9	Read the given text and answer the following questions: On 31 January 1930, Mahatma Gandhi sent a letter to Viceroy Irwin stating eleven demands. His letter was , in a way, an ultimatum. If the demands were not fulfilled by 11 March, the letter stated, the Congress would launch a civil disobedience campaign. Irwin was unwilling to negotiate. So Mahatma Gandhi started his famoussalt march accompanied by 78 of his trusted volunteers. The march was over 240 miles, from Sabarmati ashramto the Gujarati coastal town of Dandi. The volunteers walked for 24 days, about 10 miles a day. Thousands came to hear Mahatma Gandhi wherever he stopped, and he told them what he meant by swaraj and urged themto peacefully defy the British. On 6 April he reached Dandi, and ceremonially violated the law, manufacturing salt by boiling sea water. (i) To whom a letter was sent by Mahatma Gandhi ? Write any two demands of Gandhiji. (2) (ii) What was the distance between Sabarmati ashram and Dandi? (1) (iii) How many volunteers accompanied Mahatma Gandhi in salt march? (1)	**4**	Understanding
10	Read the given text and answer the following questions: The air travel, today, is the fastest, most comfortable and prestigious mode of transport. It cancover very difficult terrains like high mountains, deserts, dense forests and also long Oceanic stretches with great ease. Think of the north- eastern part of the country, marked with the presence of big rivers, dissected relief, dense forests and frequent floods and international frontiers, etc. in the absence of air transport .air travel has made access easier. The air transport was nationalised in 1953. Air India provides international air services. air travel is not within the reach of the common people it is only in the north-eastern states that special	4	Information

	provisions are made to extend the services to the common people. (i) What are the advantages of air travel ? (2) (ii) Why air transport is not in the reach of common people (1) (iii) Name the regions which have been benefitted most by air travel ? (1)		
11	What is the main impact of Globalisation on Indian Economy?	**5**	Knowledge
12	How does democracy lead to peaceful and harmonious life among citizens? Explain	**5**	Critical Thinking
13	13.1 On the given outline Political Map of India, identify the place marked as A with the help of following information and write its correct name on the line marked near it. (A)The place associated with massacre of Jallianwala. (1) 13.2 On the same given map of India, locate the following: Singrauli Thermal Plant (1) OR Hyderabad Software Technology Park (II) Indira Gandhi International Airport (1)	**3**	Map Skill