

## Worksheet (2024-25)

Class: XI PT-II

### Worksheet

Subject: English Core

#### SECTION A :- Reading Skills

To make our life a meaningful one, we need to mind our thoughts, for our thoughts are the foundation, the inspiration and the motivating power of our deeds. We create our entire world by the way we think. Thoughts are the causes and the conditions are the effects.

Our circumstances and conditions are not dictated by the world outside; it is the world inside us that creates the outside. Self-awareness comes from the mind, which means soul. Mind is the sum total of the states of consciousness grouped under thought, will and feeling. Besides self-consciousness we have the power to choose and think.

Krishna says "no man resteth a moment inactive." Even when inactive on the bodily plane, we are all the time acting on the thought plane. Therefore if we observe ourselves, we can easily mould our thoughts. If our thoughts are pure and noble, naturally actions follow the same. If our thoughts are filled with jealousy, hatred and greed, our actions will be the same.

Karmically, however, thought or intent is more responsible and dynamic than an act. One may perform a charitable act, but if he does not think charitably and is doing the act just for the sake of gain and glory, it is his thoughts that will determine the result. Theosophy teaches us that every thought, no matter how fleeting, leaves a seed in the mind of the thinker. These small seeds together go to make up a large thought seed and determine one's general character. Our thoughts affect the whole body. Each thought once generated and sent out becomes independent of the brain and mind and will live upon its own energy depending upon its intensity.

Trying to keep a thought from our mind can produce the very state we are trying to avoid. We can alter our environment to create the mood. When, for instance, we are depressed, if we sit by ourselves trying to think cheerful thoughts, we often do not succeed. But if we mix with people who are cheerful we can bring about a change in our mood and thoughts. Every thought we think, every act we perform, creates in us an impression, like everything else. is subject to cyclic law and becomes repetitive in our mind. So, we alone have the choice to create our thoughts and develop the kind of impressions that make our actions more positive

#### QUESTIONS

(a) On the basis of your reading of the passage, answer the following questions briefly.

- i) How can we make our lives meaningful and why?
- ii) Why does Krishna say, "no man resteth a moment inactive"?
- iii) How do our thoughts affect the whole body?
- iv) How can we make our actions more positive?
- v) What happens to thoughts that are generated in us and communicated?
- vi) What determines the outcome of charitable actions?

(b) On the basis of your reading of the passage, complete the statements given below by choosing the most appropriate option.

i) The mind is a sum total of \_\_\_\_\_.

- (a) the power to choose and think      (b) consciousness and unconsciousness

- (c) thought, will and feeling (d) None of these
- (ii) We change our mood when we are depressed by \_\_\_\_\_.
- (a) thinking cheerful thoughts by ourselves (b) mixing with people who are cheerful  
(c) keeping thoughts totally away from our mind (d) None of these
- (iii) The synonym of 'foundation' used in paragraph 1 is \_\_\_\_\_.
- (a) basis (b) support  
(c) fundamental (d) reason
- (iv) The antonym of 'glory' used in paragraph 3 is \_\_\_\_\_
- (a) modesty (b) shame  
(c) distinction (d) sorrow
- (v) The word in paragraph 3 which means the same as 'full of activity' is
- (a) energetic (b) generated  
(c) dynamic (d) vigorous
- (vi) In paragraph 4, the word \_\_\_\_\_ means the same as 'happening in rotation'.
- (a) recurrent (b) rotary  
(c) repetitive (d) Cyclic

#### SECTION B: Writing Skills and Grammar

II (a) 'Entrance tests are the right method for selecting students for undergraduate courses.'

You are Anand/Aditi. Write a debate either for or against the motion the motion in 120-150 words.

(b) 'Do we lead a Better Life than our Forefathers?' Write a debate either for or against the motion in 120-150 words. You are Mohit/Maya.

III Combine each set of Simple Sentences into Compound sentences:

- The day dawned. The birds began to chirp.
- I do not like tea. I do not like coffee.
- Keep quiet. I shall turn you out of the room.
- He is poor. He is contented with his lot.
- The train was late. He felt impatient.

IV Rearrange the following words/phrases to form meaningful sentences:

- nothing/so/it's/is open/ public holiday/a.
- can/with/write/either/hand/ Ankit.
- we/life/make/what/is/we.
- lest/you should/the train/miss/walk/fast.

#### SECTION C : LITERATURE

Read the exact and answer the questions :

And forever, by day and night, I give back life

To my own origin,

And make pure and beautify it

- Who is 'I' here?
- In what way does the rain help its place of origin?
- What is the importance of the word 'forever'?
- Name the poet and the poem.

Answer the following questions in 40-50 words:

- Did Professor Gaitonde ultimately make his presidential address at the seminar he had been invited to chair? Why or why not?

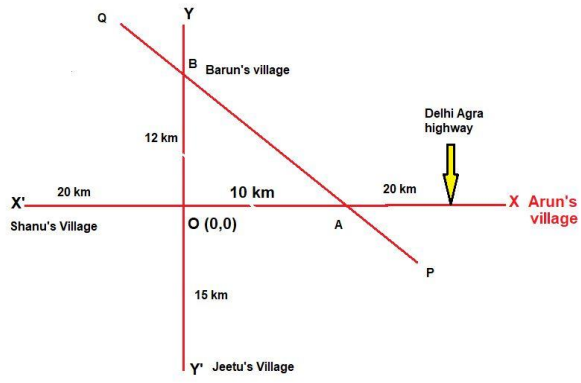
	<p>b) How does the rain justify its claim ‘ I am the Poem of Earth’?  c) Bring out the hypocrisy that the adults exhibit with regard to love.  d) What did the poet notice about independent thinking? How important was this discovery?  e) What was wrong in Mrs Annie Pearson’s family?  f) What change can be seen in Annie’s family in the end?  Answer the following questions in 120-150 words:  a) Write an article about childhood and the process of growing up.  b) Justify the title of the story ‘The Adventure’.</p>
	<p style="text-align: center;"><b>Worksheet</b>  <b>Subject: Chemistry</b></p> <ol style="list-style-type: none"> <li>1. Why He<sub>2</sub> molecule does not exist?</li> <li>2. Although B-F bonds are polar, BF<sub>3</sub> is a non-polar molecule. Explain.</li> <li>3. <i>O</i>- Nitro phenol is lower in boiling point than <i>p</i>-nitro phenol. Why?  Although NH<sub>3</sub> and H<sub>2</sub>O are sp<sup>3</sup> hybridized, bond angle in water is less than NH  Why?</li> <li>4. In SF<sub>4</sub> molecule, the lone pair of electrons occupies equatorial position in preference to axial position. Why? What is the shape the molecule?</li> <li>5. Explain the conditions for the formation of molecular orbitals from atomic orbital.</li> <li>6. What is meant by hybridization? Explain the hybridization of acetylene molecule.</li> <li>7. Describe hybridization of PCl<sub>5</sub>. Why is it more reactive?</li> <li>8. Account for the following : (a) ClF<sub>3</sub> is T-shaped. (b) Sigma bond is stronger than Pi-bond. (c) Oxygen is para magnetic. (d) Bonds in ozone are equivalent. (e) Acetic acid forms dimer. (g) HF has a higher boiling point than HCl.</li> <li>9. Explain the formation of H<sub>2</sub> molecule on the basis of valence bond theory. Also give the potential energy diagram.</li> <li>10. Differentiate between: (a) Bond enthalpy and bond dissociation enthalpy. (b) Sigma bond and pi bond. (c) Bonding and anti-bonding molecular orbitals.</li> <li>11. Explain why N<sub>2</sub> has greater bond dissociation energy than N<sub>2</sub><sup>+</sup> whereas O<sub>2</sub> has lesser bond dissociation energy than O<sub>2</sub><sup>+</sup></li> <li>12. Pick the one which is not an example of redox couple.  A. Zn<sup>2+</sup>/Zn</li> </ol>

	<p>B. <math>\text{Cu}^{2+}/\text{Cu}</math>  C. <math>\text{Cu}^{2+}/\text{Zn}</math>  D. <math>\text{Ag}^+/\text{Ag}</math></p>
13.	<p>What is an oxidation reaction? What is the reduction reaction?  What are the most essential conditions that must be satisfied in a redox reaction?  What happens to the oxidation number of an element in oxidation?  Name the different types of redox reactions.</p>
14.	<p>All decomposition reactions are not redox reactions. Give justification. .  Define half-cell.</p>
15.	<p>What is the role of a salt bridge in an electrochemical cell?  Define a redox couple.</p>
16.	<p>Explain why  <math>3\text{Fe}_3\text{O}_4(\text{s}) + 8\text{Al}(\text{s}) \rightarrow 9\text{Fe}(\text{s}) + 4\text{Al}_2\text{O}_3(\text{g})</math></p>
17.	<p>is an oxidation reaction?  It is an oxidation reaction because aluminium is getting oxidised. It forms <math>\text{Al}_2\text{O}_3</math> in</p>
18.	<p>the product indicating that the addition of oxygen has taken place.  The reaction</p>
19.	<p><math>\text{Cl}_2(\text{g}) + 2\text{OH}^-(\text{aq}) \rightarrow \text{ClO}^-(\text{aq}) + \text{Cl}^-(\text{aq}) + \text{H}_2\text{O}(\text{l})</math></p>
20.	<p>represents the process of bleaching. Identify and name the species that bleaches the</p>
21.	<p>substances due to their oxidising action.   Fluorine reacts with ice and results in the change:   <math>\text{H}_2\text{O}(\text{s}) + \text{F}_2(\text{g}) \rightarrow \text{HF}(\text{g}) + \text{HOF}(\text{g})</math>   Justify that this reaction is a redox reaction:</p>
22.	<p><math>\text{MnO}_4^{2-}</math> undergoes a disproportionation reaction in an acidic medium but <math>\text{MnO}_4^-</math> does not. Give a reason.</p>
23.	<p>Write the formula for the following compounds:  (a)Mercury(II) chloride(b)Nickel(II) sulphate(c)Tin(IV) oxide  (d)Thallium(I) sulphate(e)Iron(III) sulphate  (f)Chromium(III) oxide.</p>
24.	<p><math>\text{PbO}</math> and <math>\text{PbO}_2</math> react with <math>\text{HCl}</math> according to the following chemical equations:  <math>2\text{PbO} + 4\text{HCl} \rightarrow 2\text{PbCl}_2 + 2\text{H}_2\text{O}</math>  <math>\text{PbO}_2 + 4\text{HCl} \rightarrow \text{PbCl}_2 + \text{Cl}_2 + 2\text{H}_2\text{O}</math></p>

<p>25.</p> <p>26.</p> <p>27.</p> <p>28.</p> <p>29.</p> <p>30.</p>	<p>Why do these compounds differ in their reactivity?</p> <p>Nitric acid is an oxidising agent and reacts with PbO, but it does not react with PbO<sub>2</sub>. Explain why.</p> <p>The compound AgF<sub>2</sub> is an unstable compound. However, if formed, the compound acts as a very strong oxidising agent. Why?</p> <p>Calculate the oxidation number of phosphorus in the following species.</p> <p>(a) HPO<sub>3</sub><sup>2-</sup> and (b) PO<sub>4</sub><sup>3-</sup></p> <p>What sorts of information can you draw from the following reaction?</p> $(\text{CN})_2(\text{g}) + 2\text{OH}^-(\text{aq}) \rightarrow \text{CN}^-(\text{aq}) + \text{CNO}^-(\text{aq}) + \text{H}_2\text{O}(\text{l})$ <p>Identify the redox reactions out of the following reactions and identify the oxidising and reducing agents in them.</p> <p>(i) <math>3 \text{HCl}(\text{aq}) + \text{HNO}_3(\text{aq}) \rightarrow \text{Cl}_2(\text{g}) + \text{NOCl}(\text{g}) + 2\text{H}_2\text{O}(\text{l})</math></p> <p>(ii) <math>\text{HgCl}_2(\text{aq}) + 2\text{KI}(\text{aq}) \rightarrow \text{HgI}_2(\text{s}) + 2\text{KCl}(\text{aq})</math></p> <p>(iii) <math>\text{Fe}_2\text{O}_3(\text{s}) + 3\text{CO}(\text{g}) \rightarrow 2\text{Fe}(\text{s}) + 3\text{CO}_2(\text{g})</math></p> <p>(iv) <math>\text{PCl}_3(\text{l}) + 3\text{H}_2\text{O}(\text{l}) \rightarrow 3\text{HCl}(\text{aq}) + \text{H}_3\text{PO}_4(\text{aq})</math></p> <p>(v) <math>4\text{NH}_3 + 3\text{O}_2(\text{g}) \rightarrow 2\text{N}_2(\text{g}) + 6\text{H}_2\text{O}(\text{g})</math></p> <p>Refer to the periodic table given in your book and now answer the following questions:</p> <p>(a) Select the possible non-metals that can show a disproportionation reaction.</p> <p>(b) Select three metals that can show a disproportionation reaction.</p> <p>Explain redox reactions on the basis of electron transfer. Give suitable examples.</p> <p>One phase of each of the processes above involves electron loss, and the other phase involves electron gain. We can elaborate on one of them, like the production of sodium chloride.</p> $2\text{Na}(\text{s}) \rightarrow 2\text{Na}^+(\text{g}) + 2\text{e}^-$ $\text{Cl}_2 + 2\text{e}^- \rightarrow 2\text{Cl}^-(\text{g})$ <p>Since the involvement of electrons is evident, each preceding step is referred to as a half-reaction. The sum of the half-reactions determines the total reaction:</p>
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	<p><math>2\text{Na(s)} + \text{Cl}_2\text{(g)} \rightarrow 2\text{Na} + \text{Cl}^-\text{(s)} \text{ or } 2\text{NaCl(s)}</math></p> <p>31. According to the reactions above, oxidation reactions account for 50% of all reactions involving electron loss. Similar to this, electron gain-related half-reactions are referred to as reduction reactions.</p> <p>Redox reactions are the fundamental processes of life, including photosynthesis, respiration, combustion, and corrosion or rusting.</p> <p>32. Arrange the given metals in the order in which they displace each other from the solution of their salts.</p> <p>(i) Al (ii) Fe (iii) Cu (iv) Zn (v) Mg</p> <p>33. Why does fluorine not show a disproportionation reaction?</p> <p>34. Which method can be used to find out the strength of the reductant/oxidant in a solution? Explain with an example.</p> <p>35. What will happen when chlorine is passed through an aqueous solution of potassium bromide? Write the chemical reaction also.</p> <p>36. Why does <math>\text{H}_2\text{S}</math> acts only as a reducing agent while <math>\text{SO}_2</math> can act an oxidising as well as reducing agent.</p> <p>37. Why does fluorine not show disproportionation reaction? What is the oxidation number of C in <math>\text{CH}_2\text{O}</math>? Pick the one which is not an example of redox couple.</p> <p>38. A. <math>\text{Zn}^{2+}/\text{Zn}</math>  B. <math>\text{Cu}^{2+}/\text{Cu}</math>  C. <math>\text{Cu}^{2+}/\text{Zn}</math>  D. <math>\text{Ag}^+/\text{Ag}</math></p>				
	<p style="text-align: center;"><b>Mathematics</b></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 5%; text-align: center;">1</td> <td>Find an approximation of <math>(0.99)^5</math> using the first three terms of its expansion.</td> </tr> <tr> <td style="text-align: center;">2</td> <td>Find the value of <math>(1.01)^5</math> correct to 5 decimal places.</td> </tr> </table>	1	Find an approximation of $(0.99)^5$ using the first three terms of its expansion.	2	Find the value of $(1.01)^5$ correct to 5 decimal places.
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2	Find the value of $(1.01)^5$ correct to 5 decimal places.				

3	Simplify the following: $(x^2 - \sqrt{1-x^2})^4 + (x^2 + \sqrt{1-x^2})^4$
4	Using binomial theorem, evaluate the following: $(\sqrt{3} + \sqrt{2})^3 + (\sqrt{3} - \sqrt{2})^3$
5	The 2 <sup>nd</sup> and 5 <sup>th</sup> terms of a geometric series are $\frac{1}{2}$ and $\frac{1}{16}$ respectively. Find the sum of the series upto 8 terms.
6	Find the first term of the G.P. whose common ratio is 3, last term is 486 and the sum of whose terms is 728.
7	In a G.P. the first term is 7, the last term is 448, and the sum is 889. Find the common ratio.
8	If the first term of first three terms is of a G.P. is 5 and the sum is $\frac{31}{5}$ find the common ratio.
9	The sum of first three terms of a G.P. is to the sum of first six terms as 125:152. Find the common ratio of the G.P.
10	The vertices of a triangle PQR are P(2,1), Q(-2,3) and R(4,5) Find the equation of the median through the vertex R.
11	Find the equations of the sides of the triangle whose vertices are (2, 1) (-2,3) (4, 3).
12	Points A(2,-2) B(1,1) and C(-1,0) are the vertices of the triangle ABC Find the equations of its altitudes.
13	The points A(1,3) and C(6,8) are the two opposite vertices of the square ABCD. Find the equation of the diagonal BD.
14	Find the equation of the line passing through (-3, 5) and perpendicular to the line through the points (2, 5) and (-3, 6)
15	A line perpendicular to the line segment joining the point (1, 0) and (2, 3) divides it in the ratio 1: n. Find the equation of the line.
16	The base of an equilateral triangle is x-axis and the vertex is (0, 4). Find the equations of the other two sides.
17	Find the equation of hyperbolas satisfying the following conditions: (i) Vertices at $(0, \pm 7)$ (ii) Foci at $(\pm 2, 0)$ and eccentricity $= \frac{3}{2}$ (iii) Foci at $(0, \pm 6)$ and length of conjugate is $= 2\sqrt{11}$
18	Find the equation of the hyperbola whose centre is at origin, foci on x-axis, distance between foci is 5 and length of conjugate axis is 3.
19	Find the equation of the hyperbola whose centre is at origin, transverse axis along x-axis length of conjugate axis is 5 and passing through the point (1,-2).
20	Find the equation of the ellipse whose eccentricity is $\frac{4}{5}$ and whose foci coincide with the foci of the hyperbola $9x^2 - 16y^2 + 144 = 0$ .
21	Find the equation of the ellipse whose centre is at origin, foci on x-axis, distance of a foci from centre is 4 and length of semi-minor axis is 3.
22	Find the equation of ellipse satisfying the following conditions:  (i) Vertices at $(0, \pm 10)$ , $e = \frac{4}{5}$  (ii) Foci at $(\pm 3, 0)$ , passing through (4, 1).  (iii) Foci at $(0, \pm 4)$ , $e = \frac{4}{5}$

23	Find the equation of the ellipse whose centre is at origin, major axis on y-axis and pass through the points (3, 2) and (1, 6).
24	Find the third term of a G.P. whose common ratio is 3 and the sum of whose first seven terms is 2186.
25	Find the equation of the ellipse which passes through the point (-3, 1) and has eccentricity $\frac{\sqrt{2}}{\sqrt{5}}$ with x-axis as its major axis and centre at the origin.
26	Find the angle between the lines $y = (2 - \sqrt{3})(x + 5)$ and $y = (2 + \sqrt{3})(x - 7)$
27	For what values of a and b the intercepts cut off on the coordinate axes by the line $ax + by + 8 = 0$ are equal in length but opposite in signs to those cut off by the line $2x - 3y + 6 = 0$ on the axes.
28	<p>Villages of Shanu and Arun's are 50km apart and are situated on Delhi Agra highway as shown in the following picture. Another highway YY' crosses Agra Delhi highway at O(0,0). A small local road PQ crosses both the highways at points A and B such that OA=10 km and OB =12 km. Also, the villages of Barun and Jeetu are on the smaller high way YY'. Barun's village B is 12km from O and that of Jeetu is 15 km from O.</p> 
<b>Now answer the following questions:</b>	
<ol style="list-style-type: none"> <li>1. What are the coordinates of A? <ol style="list-style-type: none"> <li>1. (10, 0)</li> <li>2. (10, 12)</li> <li>3. (0,10)</li> <li>4. (0,15)</li> </ol> </li> <li>2. What is the equation of line AB? <ol style="list-style-type: none"> <li>1. <math>5x + 6y = 60</math></li> <li>2. <math>6x + 5y = 60</math></li> <li>3. <math>x = 10</math></li> <li>4. <math>y = 12</math></li> </ol> </li> <li>3. What is the distance of AB from O(0, 0)? <ol style="list-style-type: none"> <li>1. 60 km</li> <li>2. <math>60/\sqrt{61}</math> km</li> <li>3. <math>\sqrt{61}</math> km</li> <li>4. 60 km</li> </ol> </li> <li>4. What is the slope of line AB? <ol style="list-style-type: none"> <li>1. <math>6/5</math></li> <li>2. <math>5/6</math></li> </ol> </li> </ol>	



3.  $-\frac{6}{5}$
4.  $\frac{10}{12}$
5. What is the length of line AB?
  1.  $\sqrt{61}$  km
  2. 12 km
  3. 10 km
  4.  $2\sqrt{61}$  km

**Total No. of Pages: 3**  
**Questions: 19**

**Total No. of**

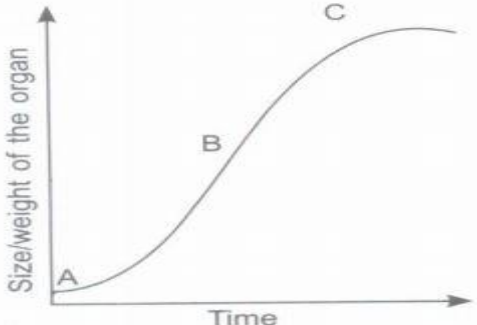
**PT-II EXAMINATION- 2024-25**  
**CLASS – XI**  
**SUBJECT –BIOLOGY**

**DURATION: 80 min.**

**M.M.: 40**

<b>Section A</b>		
<b>Choose the correct answer</b>		
1	How many light-harvesting systems are there in light reaction? a) Two b) One c) Three d) Four	1
2	Which among the following are raw materials required for the light reaction? a) NADPH <sub>2</sub> and H <sub>2</sub> O b) ADP and OH <sub>2</sub> c) ATP only d) ADP, H <sub>2</sub> O, and NADP	1
3	As a result of photorespiration, glycolate is converted into serine and carbon dioxide in the following ways: a) Mitochondria b) Chloroplasts c) Vacuoles d) Peroxisome	1
4	Which molecules combine with carbon dioxide in the C <sub>4</sub> pathway? a) glyceraldehyde phosphate b) ribulose biphosphate c) Phosphoenol pyruvic acid d) citric acid	1
5	Dark reactions of photosynthesis are not independent of light: a) The first reaction takes place in the presence of light. b) The presence of light inhibits this reaction. c) Can also occur during the day. d) They utilize the products of light reactions.	1
6	The reaction center for PS system I and PS system II are a) 680nm and 700 nm b) 700nm and 600 nm c) 650nm and 777nm d) Non of the given option	1
7	What is the first step in the process of plant growth? a) Seed fermentation b) Seed desiccation c) Seed germination d) Seed dormancy	1
8	Unlimited growth of the plant, is due to the presence of which of the following? a) Meristems b) Tissues c) Apical cells d) Special organs	1

	<p>Assertion and reason Directions: In the following questions, a statement of assertion is followed by a statement of reason. Mark the correct choice as:</p> <p>(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion. (b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion. (c) If Assertion is true but Reason is false. (d) If both Assertion and Reason are false.</p>	
9	<p>Assertion: Photorespiration interferes with the successful functioning of Calvin cycle, Reason : Photorespiration oxidises the pentosphosphate which is acceptor of CO<sub>2</sub> in Calvin cycle</p>	1
10	<p>Assertion: Primary growth of the plants leads to the elongation of the plants along their axis. Reason: Root apical meristem and shoot apical meristem are responsible for primary growth of the plants.</p>	1
	<b>SECTION - B</b>	
11	What is the full form of NADP? What are the products of the light reaction of photosynthesis? Where do light-dependent reactions take place?	2
12	Chlorophyll has which metal ion as a component? Write the formula of chlorophyll a or b any one	2
13	What do you understand by plasticity in plants	2
	<b>Section-D</b>	
14	What is growth? How many types of growths are there in plants ? Draw the diagram of lag and exponential growth .	3
15	What is Kranz anatomy how it is beneficial for plants give example of such plant and draw the t.s. of leaf showing the same feature	3
	<b>SECTION - E</b>	
16	Write about Z-scheme in detail.	5
17	<p><b>Explain in 2-3 lines each of the following terms with the help of examples taken from different plant tissues.</b></p> <p><b>a. Differentiation</b> <b>b. De-differentiation</b> <b>c. Re-differentiation</b></p> <p style="text-align: center;"><b>Or</b></p> <p><b>A rubber band stretches and reverts back to its original position. Bubble gum stretches, but it would not return to its original position. Is there any difference between the two processes? Discuss it with respect to plant growth (Hint: Elasticity (reversible), Plasticity (irreversible))</b></p>	5
	<b>SECTION - E</b>	

18	 <p>A sigmoid growth curve is shown above. Answer the following questions based on it.</p> <p>(a) Name the phases of growth A, B and C in the graph.</p> <p>(b) What type of growth occurs in phase B?</p> <p>(c) How can it be mathematically expressed?</p>	4
19	<p>Light reactions or the ‘Photochemical’ phase include light absorption, water splitting, oxygen release, and the formation of high-energy chemical intermediates, ATP and NADPH. Several protein complexes are involved in the process. The pigments are organized into two discrete photochemical light harvesting complexes (LHC) within the Photosystem I (PS I) and Photosystem II (PS II). These are named in the sequence of their discovery, and not in the sequence in which they function during the light reaction. The LHC are made up of hundreds of pigment molecules bound to proteins. Each photosystem has all the pigments (except one molecule of chlorophyll a) forming a light harvesting system also called antennae. These pigments help to make photosynthesis more efficient by absorbing different wavelengths of light. The single chlorophyll a molecule forms the reaction centre. The reaction centre is different in both the photosystems. In PS I the reaction centre chlorophyll a has an absorption peak at 700 nm, hence is called P700, while in PS II it has absorption maxima at 680 nm, and is called P680.</p> <p>Answer any 4 question given below</p> <p><b>1.) Identify the actions, which are not includes in light phase of photosynthesis</b></p> <p>a.) Splitting of water molecule  b) Combustion of oxygen  c) ATP formation  d) Oxygen release</p> <p><b>2.) Photosynthesis is _____</b></p> <p>a) Destructive process  b) Energy releasing process  c) Energy trapping process  d) None of the above</p> <p><b>3.) Name the pigment which is referred as reaction centre?</b></p> <p><b>4.) Give reason – Why photosystem 1 is named as P700?</b></p> <p><b>5.) Give reason – Why photosystem 2 is named as P680?</b></p> <p><b>6.) Explain how photosynthetic pigments are arranged?</b></p>	4

Class: XI

1	Define Physical fitness
2	Explain Wellness
3	Describe the components of Physical Fitness
4	Define Leader and Leadership
5	Highlight the Role of students leader
6	Discuss the qualities of a leader
7	Discuss the components of Wellness
8	Write the importance of Physical fitness and Wellness
9	Define Anatomy and Physiology
10	What are the benefits of Anatomy and Physiology
11	Mention the types of joints
12	Explain the types of Muscle
13	Mention the Functions of Muscle
11	Explain Circulatory system
14	Describe Respiratory system
15	Mention the role of Respiratory system
16	Define Psychology
17	Define Sports Psychology
18	Define Adolescence
19	Describe the Problem of Adolescence
20	Discuss the management of Adolescence
21	Mention the changes during Adolescence stage

**Work sheet Physics Class XI**

1	The fractional change in volume per unit increase in the pressure is called : (a) Volume coefficient (b) Pressure gradient (c) Compressibility (d) Bulk modulus	
2	You are given two wires $W_1$ and $W_2$ . Both are made of the same material and are of the same length. The radius of cross-section of $W_2$ is twice that of $W_1$ . Same load is suspended from both of them. If the strain in $W_1$ be 4, then calculate the strain in $W_2$ . (a) 8 (b) 4 (c) 2 (d) 1	
3	A steel wire is loaded by 2 kg weight. If the radius of the wire is doubled, then its extension will become (a) half (b) four times (c) one-fourth (d) double	
4	A cable breaks if stretched by more than 2 mm. It is cut into two equal parts. By how much either part can be stretched without breaking? (a) 2mm (b) 1 mm	

	(c) 0.5 mm (d) 0.25 mm	
5	The graph between the applied force and the change in length of a wire within elastic limit is a (a) straight line with zero slope (b) straight line with positive slope (c) straight line with negative slope (d) all of the above	
6	For obtaining appreciable extension, the wire must be (a) short and thin (b) long and thick (c) long and thin (d) short and thick	
7	The Young's modulus of air is (a) zero (b) infinity (c) more than 1 but not infinity (d) less than 1 but not zero	
8	How does the Young's modulus vary with the increase of temperature? (a) increases (b) decreases (c) remains constant (d) first increases and then decreases	
9	The Young's modulus of a perfectly rigid body is (a) one (b) infinity (c) zero (d) none of the above	
10	The modulus of rigidity of water is (a) one (b) infinity (c) zero (d) none of the above	
11	The bulk modulus of a perfectly rigid body is (a) one (b) infinity (c) zero (d) none of the above	
12	If both the length and radius of the wire are doubled, then how does the modulus of elasticity change? (a) doubled (b) halved (c) becomes one fourth (d) remains unchanged	
13	The substance which shows no elastic after effect practically is (a) steel (b) rubber (c) copper (d) quartz	

14	The breaking stress for wire of unit area of cross-section is called its: (a) Young's modulus (b) tensile strength (c) yield point (d) elastic limit	
15	The breaking stress of a material is defined as (a) breaking load per unit area (b) breaking load per unit volume (c) breaking load per unit length (d) total breaking load	
16	Girders are made in I shape to (a) increase its strength (b) make it appear more elegant (c) reduce the quantity of material used (d) none of the above	
17	The property of a body by virtue of which it tends to regain its original size and shape when the applied force is removed is called (a) elasticity (b) plasticity (c) rigidity (d) compressibility	
18	Substances which can be stretched to cause large strains are called (a) brittle (b) ductile (c) plastic (d) elastomer	
19	In magnitude hydraulic stress is equal to (a) hydraulic force (b) hydraulic pressure (c) restoring force (d) hydraulic strain	
20	Shearing stress change _____ of the body. (a) length (b) breadth (c) shape (d) volume	
21	The reason for the change in shape of a regular body is (a) volume stress (b) shearing strain (c) longitudinal strain (d) metallic strain	
22	Shearing strain is expressed by (a) angle of shear (b) angle of twist (c) decrease in volume (d) increase in volume	
23	The restoring force per unit area is known as (a) strain (b) elasticity (c) stress (d) plasticity	
24	Which of the following substance has the lowest elasticity? (a) Steel (b) Copper (c) Rubber (d) wood	
25	Which of the following affects the elasticity of a substance? (a) Hammering and annealing (b) Change in temperature (c) Impurity in substance (d) All of the above	
26	If the load is increased beyond the _ point, the strain increases rapidly for even a small change in the stress. (a) elastic point (b) yield point (c) plastic point (d) fracture point	

27	<p>What is the phenomenon of temporary delay in regaining the original configuration by an elastic body, after the removal of a deforming force?</p> <p>(a) Elastic fatigue (b) Elasticity (c) Plasticity (d) Elastic after effect</p>	
28	<p>Which of the following is not a type of stress?</p> <p>(a) Tensile stress (b) Compressive stress (c) Hydraulic stress (d) None of these</p>	
29	<p>Which of the following elastic moduli is used to describe the elastic behaviour of object as they respond to the deforming forces acting on them?</p> <p>(a) Young's modulus (b) Shear modulus (c) Bulk modulus (d) All of these</p>	
30	<p>Which of the following types of stress causes no change in shape?</p> <p>(a) Compressive stress (b) Hydraulic stress (c) Shearing stress (d) None of these</p>	
31	<p>Hooke's law essentially defines</p> <p>(a) Stress (b) Strain (c) Yield point (d) Elastic limit</p>	
32	<p>Longitudinal strain is possible in the case of</p> <p>(a) Gases (b) Liquid (c) Only solids (d) Only gases &amp; liquids</p>	
33	<p>Out of the following materials, whose elasticity is independent of temperature?</p> <p>(a) Copper (b) Invar steel (c) Brass (d) Silver</p>	
34	<p>In a wire, when elongation is 2 cm energy stored is E. if it is stretched by 10 cm, then the energy stored will be</p> <p>(a) E (b) 2 E (c) 4 E (d) 25 E</p>	
35	<p>The ratio of the change in dimension at right angles to the applied force to the initial dimension is known as</p> <p>(a) Youngs modulus (b) Poissons ratio (c) Lateral strain (d) Shearing strain</p>	
36	<p>The radii of two wires of a same material are in ratio 2 : 1. if the wires are stretched by equal forces, the stress produced in them will be</p> <p>(a) 2 : 1 (b) 4 : 1 (c) 1 : 4 (d) 1 : 2</p>	

37	<p>The ratio of the change in dimension at right angles to the applied force to the initial dimension is known as</p> <p>(a) Youngs modulus  (b) Poissons ratio  (c) Lateral strain  (d) Shearing strain</p>		
38	<p>The specific gravity of a liquid has</p> <p>a) the same unit as that of mass density  b) the same unit as that of weight density  c) the same unit as that of specific volume  d) no unit</p>		
39	<p>The specific volume of a liquid is the reciprocal of</p> <p>a) weight density  b) mass density  c) specific weight  d) specific volume</p>		
40	<p>A beaker is filled with a liquid up to the mark of one litre and weighed. The weight of the liquid is found to be 6.5 N. The specific weight of the liquid will be</p> <p>a) 6:5 kN = m<sup>3</sup>  b) 6:6 kN = m<sup>3</sup>  c) 6:7 kN = m<sup>3</sup>  d) 6:8 kN = m<sup>3</sup></p>		