BCM SCHOOL

Basant City, Pakhowal Road, Ludhiana

HOLIDAY HOMEWORK

"Learning never takes a vacation!"

CLASS XII Medical & Non Medical
SESSION (2025-26)

SUBJECT – ENGLISH

ASSESMENT OF LISTENING AND SPEAKING SKILLS (ALS) PROJECT

INSTRUCTIONS FOR MAKING THE PROJECT

- **The marks allotted for ASL PROJECT :10 marks (5 for Project+ 5 for Viva)**
- **Choose any ONE from the below given topics.**
- **Viva based on the project will be taken by the Internal examiner**
- **The portfolio of project may include all the points given in each project.**
- **The project must contain at least 20-25 sheets**
- **Use as many pictures /photographs as you require**
- **Use sketch pens for headings and coloured pens for content.**
- **Use A4 size coloured /designer paper sheets for the project and after compiling everything it should be submitted in spiral binding / Project file**

NOTE: THE PROJECT SHOULD BE HANDWRITTEN

PROJECT 1: PLIGHT OF OLD AGED PEOPLE

1. **Index**
2. **Acknowledgement**
3. **Certificate of Completion 4.Objectives**
5. **About the Poetess (with photos)**
6. **Poetess' Personal Experience - Common Paradox of Human Relationships 7.Portrayal of Sensational Separation Between a Mother and a Daughter**
8. **Plight of Old Aged People : Ugly Truth About Old Age (with photos)**
9. **Reasons Behind the Need of Old Age Homes**
10. **Efforts for Stress-Free and Secured Life of Aged People**
11. **Visit to an Old Age Home (photos of some aged people living in such homes)**
12. **How to Strike a Balance Between Duties and Responsibilities of Children and Society**
13. **Role of Youth to Improve the Plight of Aged People 14. Bibliography or References**

PROJECT 2: INDIGO – THE EMANCIPATION OF SHARECROPPERS BY MAHATMA GANDHI

1. **Index**
2. **Acknowledgement 3.Certificate of Completion 4 Objectives**
5. **About the author**
6. **What is Indigo Sharecropping? (Brief history)**
7. **Natural Indigo Harvesting and its uses (pictures)**
8. **Theme of Indigo**
9. **Role of Rajkumar Shukla**
10. **Summary of Indigo**
11. **Efforts by Gandhi to put an end to Sharecropping in Champaran**
12. **Gandhi as an effective leader 13.Bibliography**

PROJECT 3: THE RATTRAP: ESSENTIAL GOODNESS CAN BE AWAKENED THROUGH UNDERSTANDING AND LOVE.

1. **Index 2.Acknowledgement 3.Certificate of Completion. 4.Objectives**
5. **Author's Biography.(With Pictures)**
6. **Introduction: THEME- loneliness/ need for a bonding/ faith in humanity/ kindness/ compassion**
7. **Summary and analysis**
8. **Character sketch of major characters**

9- The letter by Rattrap peddler- Significance 10.Bibliography or References.

PROJECT 4: A THING OF BEAUTY AND IT'S ROLE IN HUMAN LIFE

1. **Index**
2. **Acknowledgement**
3. **Certificate of Completion**
4. **Objective**
5. **About author John Keats (pictures)**

6. **Different characteristics of nature like it's eternal ,changeless, perfect , source of true happiness, etc)(beautiful pictures of Nature)**

7. **Comparison of human life and Nature (1page) For example:**

HUMAN	NATURE
Change	Changeless
Mortal	Immortal
Death & \Decay	Eternal

8. **Description of beautiful things in nature like**

- **Rivers: Symbol of excitement ,adventure ,healing, never ending supply of life...**
- **Sun: equality, light ,hope royalty ,divinity ,positivity power..**
- **Trees: lively, wisdom ,prosperity ,transformation...**
- **Animals: divine, moving ,growing, fertility ,happiness elegance, strength ,energy wisdom….**
- **Flowers: purity ,hope ,beautiful, Innocence ,humility, youthful….**
- **Beauty of Mighty dead :Stories of Saints and sages ,their work and deeds, how they immortalized themselves ‘**

(Maximum 6 -7 pages with pictures) 9.Any 10 Central idea of -THING OF BEAUTY.

10.Bibliography or References.

<u>PROJECT 5 :CHILD LABOUR IN INDIA</u> (LOST SPRING}

1. **Index**
2. **Acknowledgement**

3 Certificate of Completion 4.Objective

5. **Child Labour with reference to Lost spring (summary)**
6. **Lives of children like Saheb and Mukesh**
7. **Describe – Seemapuri (with pictures)**
8. **Hazards of Bangle making industry 9.Initiative against child labour by**

9. **Indian government Various NGOs**

10. SOS Children's Village in India

12. The Child Labour Prohibition And Regulation Act ,1986

13. Ways to eliminate child labour Bibliography

ACKNOWLEDGEMENT

I would like to extend my sincere and heartfelt obligation towards all those who have helped me in making this project. Without their active guidance, help, cooperation and encouragement, I would not have been able to present the project on time.

I am extremely thankful and pay my sincere gratitude to my teacher____for her valuable guidance and support for completion of this project.

I also acknowledge with a deep sense of reverence, my gratitude towards my parents, other faculty members of the school and friends for their valuable suggestions given to me in completing the project.

Date:

Place:

CERTIFICATE OF COMPLETION= CERTIFICATE

This is to certify that the project work on__based on the curriculum of CBSE has been completed by …….of BCM SCHOOL,BASANT CITY, LUDHIANA

The above mentioned project work has been completed under my guidance during the academic year 2024-25

Signature of Teacher

SUBJECT: BIOLOGY

NOTE :---

- Do this work on assignment sheets.
- Here is the list of topics, choose any one and make it with the help of Biology reference books and internet.
- Project should be investigatory.
- Paste pictures and you can draw diagrams also.

❖ **LIST OF TOPICS:** ----

- HUMAN REPRODUCTIVE CLONING AND BIOTECHNOLOGY
- STUDY OF GENE THERAPY
- NANOTECHNOLOGY METHODS FOR DNA ISOLATION
- ASSISTED REPRODUCTIVE TECHNOLOGIES
- GEL ELECTROPHORESIS
- DNA FINGERPRINTING
- DRUG ADDICTION
- HUMAN WELFARE
- RECOMBINANT DNA TECHNOLOGY IN MEDICINES
- MICROBES IN HUMAN WELFARE
- STUDY OF EFFECTS OF ANTIBIOTICS ON MICRO-ORGANISMS

Make practical file also as per the syllabus given by CBSE

Revise and learn the syllabus which we had done and solve the NCERT questions in your biology notebook

Draw diagrams of Unit-1 in notebook

SUBJECT: MATHEMATICS

1. Revise Continuity and Differentiability from the NCERT and RD Sharma
2. Do Previous Year CBSE Board Questions from RD Sharma of all the chapters completed in class.
3. Write the 4 activities discussed in the class in the practical notebook.

SUBJECT-PHYSICS

Do the following activities in your activity file: Any five from each section)

Section-A

1.To measure the resistance and impedance of an inductor with or without iron core.

2.To measure the resistance, voltage (AC/DC), current (AC) and check continuity of a given circuit using multimeter.

3.To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.

4.To assemble the components of a given electrical circuit.

5. To study the variation in potential drop with length of a wire for a steady current.

6. To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.

Section-B

1. To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items.

2. Use of multimeter to see the unidirectional flow of current in case of a diode and an LED and check whether a given electronic component (e.g., diode) is in working order.

3. To study effect of intensity of light (by varying distance of the source) on an LDR.

4. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.

5. To observe diffraction of light due to a thin slit.

6.To study the nature and size of the image formed by a (i) convex lens, (ii) concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the lens/mirror).

7. To obtain a lens combination with the specified focal length by using two lenses from the given set of lenses

Do the the following assignment:

1.The force acting between two-point charges q1 and q2 kept at some distance apart in air attractive or repulsive when (i) $q_1 q_2 > 0$ (ii) $q_1 q_2 < 0$.

2. Sketch the electric lines of force for two- point charges q_1 and q_2 ($q_1 > q_2$) separated by a distance d.

3. Express dielectric constant in terms of capacitance.

4. What is the effect of introducing a dielectric slab between the plates of a parallel plate capacitor?

5. An electric dipole of dipole moment $20x10^{-6}$C-m enclosed by closed surface. What is the net electric flux coming out of this surface?

6. Sketch graph to show how charge Q given to a capacitor of capacitance C varies with the potential difference.

7. A charged air capacitor has stored energy U_0. What will be the energy stored when air is replaced by a dielectric of dielectric constant K, charge Q remaining the same.

8. In a parallel plate capacitor, the capacitance increases from 4μF to 80μF on introducing the dielectric medium between the plates. What is the dielectric constant of the medium?

9. In an electric field an electron is kept freely. If a proton replaces this electron, what will be the relationship between the forces experienced by them?

10. What orientation of an electric dipole in a uniform electric field corresponds to its stable equilibrium?

11. The force between two-point charges kept at a distance r apart in air is F. If the same charges

are kept in water at same distance, how does the force between them change?

12. Two-point electric charges of unknown magnitude and sign are placed at a distance 'd' apart.

The electric intensity is zero at a point, not between the charges but on the line joining them.

Write two essential conditions for this to happen.

13. What should be the work done if a point charge + q is taken from a point A to the point B on

the circumference drawn with another point + q at the centre?

14. A and B are two conducting spheres of the same radius, A being solid and B hollow. Both are charged to the same potential. What will be the relation between the charges on the two spheres?

15. How much work is done in moving a 500μC charge between two points on an equi-potential

surface.

16. Name the dielectric whose molecules have (i) non-zero (ii) zero dipole moment.

17. A positively charged particle is free to move in an electric field. Will it always move along

the line of force?

18. A proton and an electron are placed freely in an electric field. Which of the particles will have greater acceleration and why?

19.Electric charges q, q and -2q are placed at the corners of an equilateral triangle of side L. what is the magnitude of dipole moment of the system?

20. State Gauss's law in electrostatics. Show, with the help of a suitable example along with the figure, that the outward flux due to a point charge 'q', in vacuum within a closed surface, is independent of its size or shape and is given by $q/\varepsilon o$.

21.Two parallel uniformly charged infinite plane sheets, '1' and '2', have charge densities $+\sigma$ and -2σ respectively. Give the magnitude and direction of the net electric field at a point (i) in between the two sheets and (ii) outside near the sheet '1'

Current electricity:

1.If current 'I' in a wire varies with time as $I = 4+2t^2$ then find the total charge passed in time interval t= 2 to t= 5sec.

2. A cylindrical wire is stretched to increase its length by 10 %. Calculate the percentage-increase in resistance.

3. Two identical cells, each of emf E, having negligible internal resistance, are connected in parallel with each other across an external resistance R. Find the current through the resistor.

4. Two heating elements of resistances R1 and R2 when operated at a constant supply of voltage, V, consume powers P1 and P2 respectively. Deduce the expressions for the power of their combination when they are, in turn, connected in (i) series and (ii) parallel across the same voltage supply.

5. A potential difference V is applied across a conductor of length L and diameter D. How is the drift velocity, v_d, of charge carriers in the conductor affected when (i) V is halved, (ii) L is doubled and (iii) D is halved? Justify your answer in each case.

Do any one of the following project in project file:

1.To study various factors on which the internal resistance/EMF of a cell depends.

2. To study the variations in current flowing in a circuit containing an LDR because of a variation in

(a) the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed distance)

(b) the distance of a incandescent lamp (of fixed power) used to 'illuminate' the LDR.

3.To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equiconvex lens (made from a glass of known refractive index) and an adjustable object needle.

4. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer.

5.To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.

6.To estimate the charge induced on each one of the two identical Styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law.

7. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C. source of adjustable frequency.

SUBJECT: CHEMISTRY

1. Revise ch - solutions, Biomolecules and Haloalkane and Haloarene ,coordination compounds.

2. Write down all NCERT questions (both Intext and Back-exercise) of ch - Haloalkane and Haloarene in chemistry notebook and solve numerical problems of solutions.

3. Complete your Practical notebook and prepare any one project on the topic prescribed by CBSE, or -

- rusting of iron
- solution
- food adulteration
- cell (different type of electrochemical and electrolytic cell)

4) Solve PYQ of above three chapters in your chemistry notebook

SUBJECT-PAINTING

INSTRUCTIONS:
All Three Projects Are Compulsory.
Work should be Neat and presentable.

PROJECT 1:-Make 1 Landscape sheet,1 Still-Life sheet and 1 Composition sheet on A2 sized sheet.

PROJECT 2:-Make a beautiful Assignment File with pictures on any one Topic from your course of study.
PROJECT 3:-Make any one art piece from the given picture below:-

Subject: Yoga

💐 practical File

👉Surya Namaskar

👉 Five Aasan

👉 Two Pranayam

👉 Two Bandh

👉 Two Mudra

💐 prepare a project file your favourite Asana & Pranayam

SUBJECT : Physical Education

Record File shall include:

Practical-1: Fitness tests administration.

Practical-2: Procedure for Asanas, Benefits and Contraindication for any five Asanas for each lifestyle disease.

Practical-3: Anyone one IOA recognised Sport/Game of choice. Labelled diagram of field and equipment. Also mention its Rules, Terminologies and Skills

SUBJECT: INFORMATICS PRACTICES

1. Explain Python PANDAS Series. Write any 3 Python programs that are suitable examples for different Series attributes.
2. Explain Python PANDAS DataFrame. Write any 4 Python programs that are suitable examples for different DataFrame attributes.
3. Explain different graphs/charts available with Data Visualisation and mention the functions with examples for plotting graph using matplotlib library.
4. Learn SQL Functions (any 5 Aggregate functions, any 5 String functions, any 5 numeric functions and any 5 Date functions) and write down select query using these functions as examples.
5. Complete your group project as the proposal already submitted and submit the Project Report File.

Subject - Music

PROJECT WORK

Students have to prepare the Project file

Guidelines for preparing file

1. Practical file should be handwritten.
2. File should be presented neatly.

Contents for project will be

1) Talas along with single, double, tigun, chogun

i.Dhamar Tala

ii.Roopak Tala

iii.Jhap Tala

2) Write any one life sketch

i..Ustad Faiyaz Khan

ii Krishna Rao Shankar Pandit

iii. Ustad Bade Ghulam Ali Khan.

3.Ragas: full description and notation

1.bhairav

2.malkauns

3.bageshri

(paste pictures of musical instruments and musicians)