ENGLISH

Assessment of Listening and Speaking Skills		**20**	**-**

BENGALI

SECTION	DETAILS OF TOPICS/CHAPTERS	WEIGHTAGE !MARKS)	SUGGESTED PERIODS
SECTION - E Projects	Any one of the following Project Work is to be undertaken in class XI and another one will be chosen in class XII 1. Translation : Students are to translate a story written in English or Hindi or in any Indian language to Bengali within 1000 words. 2. Interview: An interview or any distinguished personality can be taken by the students. 3. Dramatization: Students can transform a story written in any of the Indian languages into Drama within 1000-2000 words 4. Survey: Students will conduct a survey or their own school or on any neighbouring school to reveal the facts, history, configuration of the students's and teacher's ethnic identity etc. of the school under survey. 5. Self composed Story: Students can write a story on any special incident or day they experienced in their life.	10	
LISTENING		5	
SPEAKING		5	

HINDI

<u>आंतरिक मूल्यांकन हेतु</u> –

श्रवण तथा वाचन परीक्षा हेतु दिशा-निर्देश

- **श्रवण (सुनना) (5अंक)**: वर्णित या पठित सामग्री को सुनकर अर्थग्रहण करना, वार्तालाप करना, वाद-विवाद, भाषण, कवितापाठ आदि को सुनकर समझना, मूल्यांकन करना और अभिव्यक्ति के ढंग को समझना।
- **वाचन (बोलना) (5अंक)**: भाषण, सस्वर कविता-पाठ, वार्तालाप और उसकी औपचारिकता, कार्यक्रम-प्रस्तुति, कथा-कहानी अथवा घटना सुनाना, परिचय देना, भावानुकूल संवाद-वाचन।

टिप्पणी: *वार्तालाप की दक्षताओं का मूल्यांकन निरंतरता के आधार पर परीक्षा के समय ही होगा। निर्धारित 10 अंकों में से 5 श्रवण (सुनना) कौशल के मूल्यांकन के लिए और 5 वाचन (बोलना) कौशल के मूल्यांकन के लिए होंगे।*

वाचन (बोलना) एवं श्रवण (सुनना) कौशल का मूल्यांकन:

- परीक्षक किसी प्रासंगिक विषय पर एक अनुच्छेद का स्पष्ट वाचन करेगा। अनुच्छेद तथ्यात्मक या सुझावात्मक हो सकता है। अनुच्छेद लगभग 250 शब्दों का होना चाहिए।

या

- परीक्षक 2-3 मिनट का श्रव्य अंश (ऑडियो क्लिप) सुनवाएगा। अंश रोचक होना चाहिए। कथ्य/ घटना पूर्ण एवं स्पष्ट होनी चाहिए। वाचक का उच्चारण शुद्ध, स्पष्ट एवं विराम चिह्नों के उचित प्रयोग सहित होना चाहिए।
- परीक्षार्थी ध्यानपूर्वक परीक्षक/ऑडियो क्लिप को सुनने के पश्चात परीक्षक द्वारा पूछे गए प्रश्नों का अपनी समझ से मौखिक उत्तर देंगे। (1x5 =5)
- किसी निर्धारित विषय पर बोलना: जिससे विद्यार्थी अपने व्यक्तिगत अनुभवों का प्रत्यास्मरण कर सकें।
- कोई कहानी सुनाना या किसी घटना का वर्णन करना।
- परिचय देना। (स्व/ परिवार/ वातावरण/ वस्तु/ व्यक्ति/ पर्यावरण/ कवि /लेखक आदि)
- परीक्षण से पूर्व परीक्षार्थी को तैयारी के लिए कुछ समय दिया जाए।
- विवरणात्मक भाषा में वर्तमान काल का प्रयोग अपेक्षित है।
- निर्धारित विषय परीक्षार्थी के अनुभव-जगत के हों।
- जब परीक्षार्थी बोलना आरंभ करें तो परीक्षक कम से कम हस्तक्षेप करें।

कौशलों के अंतरण का मूल्यांकन

(इस बात का निश्चय करना कि क्या विद्यार्थी में श्रवण और वाचन की निम्नलिखित योग्यताएँ हैं)

क्र. सं.	**श्रवण (सुनना)**		**वाचन (बोलना)**
1	परिचित संदर्भों में प्रयुक्त शब्दों और पदों को समझने की सामान्य योग्यता है।	1	केवल अलग-अलग शब्दों और पदों के प्रयोग की योग्यता प्रदर्शित करता है।
2	छोटे सुसंबद्ध कथनों को परिचित संदर्भों में समझने की योग्यता है।	2	परिचित संदर्भों में केवल छोटे संबद्ध कथनों का सीमित शुद्धता से प्रयोग करता है।
3	परिचित या अपरिचित दोनों संदर्भों में कथित सूचना को स्पष्ट समझने की योग्यता है।	3	अपेक्षाकृत दीर्घ भाषण में जटिल कथनों के प्रयोग की योग्यता प्रदर्शित करता है।
4	दीर्घ कथनों की शृंखला को पर्याप्त शुद्धता से समझने के ढंग और निष्कर्ष निकाल सकने की योग्यता है।	4	अपरिचित स्थितियों में विचारों को तार्किक ढंग से संगठित कर धारा-प्रवाह रूप में प्रस्तुत करता है।
5	जटिल कथनों के विचार-बिंदुओं को समझने की योग्यता प्रदर्शित करने की क्षमता है।	5	उद्देश्य और श्रोता के लिए उपयुक्त शैली को अपना सकता है।

- **परियोजना कार्य - कुल अंक 10**

- विषय वस्तु - 5 अंक
- भाषा एवं प्रस्तुति - 3 अंक
- शोध एवं मौलिकता - 2 अंक

  - हिन्दी भाषा और साहित्य से जुड़े विविध विषयों/ विधाओं / साहित्यकारों / समकालीन लेखन / साहित्यिक वादों / भाषा के तकनीकी पक्ष / प्रभाव / अनुप्रयोग / साहित्य के सामाजिक संदर्भो एवं जीवन मूल्य संबंधी प्रभावों आदि पर परियोजना कार्य दिए जाने चाहिए।
  - सत्र के प्रारंभ में ही विद्यार्थी को विषय चुनने का अवसर मिले ताकि उसे शोध, तैयारी और लेखन के लिए पर्याप्त समय मिल सके ।

➢ **वाचन -श्रवण कौशल एवं परियोजना कार्य का मूल्यांकन विद्यालय स्तर पर आंतरिक परीक्षक द्वारा ही किया जाएगा।**

7	**(अ) श्रवण तथा वाचन**	10	**20**
	(ब) परियोजना कार्य	10	

PHYSICS

PRACTICALS **Total Periods: 32**

The record to be submitted by the students at the time of their annual examination has to include:

- Record of at least **8** Experiments [with **4** from each section], to be performed by the students.
- Record of at least 6 Activities [with 3 each from section A and section B], to be demonstrated by teacher

Evaluation Scheme

Time Allowed: Three hours **Max. Marks: 30**

Two experiments one from each section	**8+8 marks**
Practical record [experiments and activities]	**7 marks**
Viva on experiments, **and** activities	**7 marks**
Total	**30 marks**

SECTION–A
Experiments

1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
2. To find resistance of a given wire / standard resistor using metre bridge.

OR

To verify the laws of combination (series) of resistances using a metre bridge.

OR

To verify the laws of combination (parallel) of resistances using a metre bridge.

3. To compare the EMF of two given primary cells using potentiometer.

OR

To determine the internal resistance of given primary cell using potentiometer.

4. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
5. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same.

OR

To convert the given galvanometer (of known resistance and figure of merit) into an ammeter of desired range and to verify the same.

6. To find the frequency of AC mains with a sonometer.

Activities

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

Experiments

1. .To find the focal length of a convex lens by plotting graphs between *u* and *v* or between *1/u* and *1/v*.
2. To find the focal length of a convex mirror, using a convex lens.

OR

To find the focal length of a concave lens, using a convex lens.

3. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
4. To determine refractive index of a glass slab using a travelling microscope.
5. To find refractive index of a liquid by using convex lens and plane mirror.
6. To draw the I-V characteristic curve for a p-n junction diode in forward bias and reverse bias.

Activities

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 polarization of light using two Polaroids.
6. To observe diffraction of light due to a thin slit.
7. 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).
8. To obtain a lens combination with the specified focal length by using two lenses from the given set of lenses.

Practical Examination for Visually Impaired Students of Classes XI and XII Evaluation Scheme

Time Allowed: Two hours **Max. Marks: 30**

Identification/Familiarity with the apparatus	5 marks
Written test (based on given/prescribed practicals)	10 marks
Practical Record	5 marks
Viva	10 marks
Total	**30 marks**

General Guidelines

- The practical examination will be of two hour duration.
- A separate list of ten experiments is included here.
- The written examination in practicals for these students will be conducted at the time of practical examination of all other students.

- The written test will be of 30 minutes duration.
- The question paper given to the students should be legibly typed. It should contain a total of 15 practical skill based very short answer type questions. A student would be required to answer any 10 questions.
- A writer may be allowed to such students as per CBSE examination rules.
- All questions included in the question papers should be related to the listed practicals. Every question should require about two minutes to be answered.
- These students are also required to maintain a practical file. A student is expected to record at least five of the listed experiments as per the specific instructions for each subject. These practicals should be duly checked and signed by the internal examiner.
- The format of writing any experiment in the practical file should include aim, apparatus required, simple theory, procedure, related practical skills, precautions etc.
- Questions may be generated jointly by the external/internal examiners and used for assessment.
- The viva questions may include questions based on basic theory/principle/concept, apparatus/ materials/chemicals required, procedure, precautions, sources of erro

Class XII

A. Items for Identification/ familiarity with the apparatus for assessment in practicals (All experiments)

Meter scale, general shape of the voltmeter/ammeter, battery/power supply, connecting wires, standard resistances, connecting wires, voltmeter/ammeter, meter bridge, screw gauge, jockey Galvanometer, Resistance Box, standard Resistance, connecting wires, Potentiometer, jockey, Galvanometer, Lechlanche cell, Daniell cell [simple distinction between the two vis-à-vis their outer (glass and copper) containers], rheostat connecting wires, Galvanometer, resistance box, Plug-in and tapping keys, connecting wires battery/power supply, Diode, Resistor (Wire-wound or carbon ones with two wires connected to two ends), capacitors (one or two types), Inductors, Simple electric/electronic bell, battery/power supply, Plug-in and tapping keys, Convex lens, concave lens, convex mirror, concave mirror, Core/hollow wooden cylinder, insulated

wire, ferromagnetic rod, Transformer core, insulated wire.

B. List of Practicals

1. To determine the resistance per cm of a given wire by plotting a graph between voltage and current.
2. To verify the laws of combination (series/parallel combination) of resistances by Ohm's law.
3. To find the resistance of a given wire / standard resistor using a meter bridge.
4. To compare the e.m.f of two given primary cells using a potentiometer.
5. To determine the resistance of a galvanometer by half deflection method.
6. To identify a resistor, capacitor, inductor and diode from a mixed collection of such items.
7. To observe the difference between
   (i) a convex lens and a concave lens
   (ii) a convex mirror and a concave mirror and to estimate the likely difference between the power of two given convex /concave lenses.
8. To design an inductor coil and to know the effect of
   (i) change in the number of turns
   (ii) Introduction of ferromagnetic material as its core material on the inductance of the coil.
9. To design a (i) step up (ii) step down transformer on a given core and know the relation between its input and output voltages.

Note: The above practicals may be carried out in an experiential manner rather than recording observations.

CHEMISTRY

PRACTICALS

Evaluation Scheme for Examination	Marks
Volumetric Analysis	08
Salt Analysis	08
Content Based Experiment	06
Project Work	04
Class record and viva	04
Total	**30**

PRACTICAL SYLLABUS **36 Periods**

Micro-chemical methods are available for several of the practical experiments. Wherever possible, such techniques should be used.

A.Chromatography

i) Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of Rf values.

ii) Separation of constituents present in an inorganic mixture containing two cations only (constituents having large difference in Rf values to be provided).

A. Preparation of Inorganic Compounds

Preparation of double salt of Ferrous Ammonium Sulphate or Potash Alum.

Preparation of Potassium Ferric Oxalate.

B. Tests for the functional groups present in organic compounds:

Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups.

C. Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given foodstuffs.

D. Determination of concentration/ molarity of $KMnO_4$ solution by titrating it against a standard solution of:

i) Oxalic acid,

ii) Ferrous Ammonium Sulphate

(Students will be required to prepare standard solutions by weighing themselves).

E. Qualitative analysis

Determination of one cation and one anion in a given salt.

Cation : Pb^{2+}, Cu^{2+} As^{3+}, $A\ell^{3+}$, Fe^{3+}, Mn^{2+}, Zn^{2+}, Cu^{2+}, Ni^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+}, NH_4^+

Anions: $(CO_3)^{2-}$, S^{2-}, $(SO_3)^{2-}$, $(NO_2)^-$, $(SO_4)^{2-}$, $C\ell^-$, Br^-, I^-, PO^{3-}_4, $(C_2O_4)^{2-}$, CH_3COO^-, NO_3^-

(Note: Insoluble salts excluded)

PROJECT

Scientific investigations involving laboratory testing and collecting information from other sources

A few suggested Projects.

- Study of the presence of oxalate ions in guava fruit at different stages of ripening.
- Study of quantity of casein present in different samples of milk.
- Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature, etc.
- Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature, concentration, time, etc.)
- Study of digestion of starch by salivary amylase and effect of pH and temperature on it.
- Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, potato juice, carrot juice, etc.
- Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom).
- Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chilli powder and pepper.

Note: Any other investigatory project, which involves about 10 periods of work, can be chosen with the approval of the teacher.

Practical Examination for Visually Impaired Students of Classes XI and XII
Evaluation Scheme

Time Allowed: Two hours **Max. Marks:30**

Identification/Familiarity with the apparatus	5 marks
Written test (based on given/prescribed practicals)	10 marks
Practical Record	5 marks
Viva	10 marks
Total	**30 marks**

General Guidelines

- The practical examination will be of two hour duration.
- A separate list of ten experiments is included here.
- The written examination in practicals for these students will be conducted at the time of practical examination of all other students.
- The written test will be of 30 minutes duration.

- The question paper given to the students should be legibly typed. It should contain a total of 15 practical skill based very short answer type questions. A student would be required to answer any 10 questions.
- A writer may be allowed to such students as per CBSE examination rules.
- All questions included in the question papers should be related to the listed practicals. Every question should require about two minutes to be answered.
- These students are also required to maintain a practical file. A student is expected to record at least five of the listed experiments as per the specific instructions for each subject. These practicals should be duly checked and signed by the internal examiner.
- The format of writing any experiment in the practical file should include aim, apparatus required, simple theory, procedure, related practical skills, precautions etc.
- Questions may be generated jointly by the external/internal examiners and used for assessment.
- The viva questions may include questions based on basic theory/principle/concept, apparatus/materials/ chemicals required, procedure, precautions, sources of error etc.

A. Items for Identification/Familiarity of the apparatus for assessment in practical (All experiments)

Beaker, glass rod, tripod stand, wire gauze, Bunsen burner, Whatman filter paper, gas jar, capillary tube, pestle and mortar, test tubes, tongs, test tube holder, test tube stand, burette, pipette, conical flask, standard flask, clamp stand, funnel, filter paper

Hands-on Assessment

- Identification/familiarity with the apparatus
- Odour detection in qualitative analysis

B. List of Practicals

The experiments have been divided into two sections: Section A and Section B. The experiments mentioned in Section B are mandatory.

SECTION- A

A Chromatography

(1) Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of R_f values (distance values may be provided).

B Tests for the functional groups present in organic compounds:

(1) Alcoholic and Carboxylic groups.

(2) Aldehydic and Ketonic

C Characteristic tests of carbohydrates and proteins in the given foodstuffs.

D Preparation of Inorganic Compounds- Potash Alum

SECTION-B (Mandatory)

E Quantitative analysis

(1) (a) Preparation of the standard solution of Oxalic acid of a given volume

(b) Determination of molarity of $KMnO_4$ solution by titrating it against a standard solution of Oxalic acid.

(2) The above exercise [F 1 (a) and (b)] to be conducted using Ferrous ammonium sulphate (Mohr's salt)

F Qualitative analysis:

(1) Determination of one cation and one anion in a given salt. Cation –NH_4^+

Anions – CO_3^{2-}, S^{2-}, SO_3^{2-}, Cl^-, CH_3COO^-

(Note: Insoluble salts excluded)

Note: The above practicals may be carried out in an experiential manner rather than recording observations.

BIOLOGY

PRACTICALS

Time allowed: 3 Hours **Max. Marks: 30**

Evaluation Scheme		Marks
One Major Experiment 5, 6		5
One Minor Experiment 2, 3		4
Slide Preparation 1, 4		5
Spotting		7
Practical Record + Viva Voce	Credit to the students' work over the academic session may be given	4
Investigatory Project and its Project and its Record + Viva Voce		5
Total		**30**

A. List of Experiments

1. Prepare a temporary mount to observe pollen germination.
2. Collect and study soil from at least two different sites and study them for texture, moisture content, pH and water holding capacity. Correlate with the kinds of plants found in them.
3. Collect water from two different water bodies around you and study them for pH, clarity and presence of any living organism.
4. Prepare a temporary mount of onion root tip to study mitosis.
5. Study the effect of different temperatures or three different pH on the activity of salivary amylase on starch.
6. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.

B. Study/observation of the following (Spotting)

1. Flowers adapted to pollination by different agencies (wind, insects, birds).
2. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
3. Meiosis in onion bud cell or grasshopper testis through permanent slides.
4. T.S. of blastula through permanent slides (Mammalian).
5. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness.
6. Common disease causing organisms like *Ascaris, Entamoeba, Plasmodium*, any fungus causing ringworm through permanent slides, models or virtual images. Comment on symptoms of diseases that they cause.
7. Two plants and two animals (models/virtual images) found in xeric conditions. Comment

upon their morphological adaptations.

8. Two plants and two animals (models/virtual images) found in aquatic conditions. Comment upon their morphological adaptations.

Practical Examination for Visually Impaired Students of Classes XI and XII
Evaluation Scheme

Time Allowed: Two hours **Max. Marks: 30**

Topic	Marks
Identification/Familiarity with the apparatus	5
Written test (Based on given / prescribed practicals)	10
Practical Records	5
Viva	10
Total	**30**

General Guidelines

- The practical examination will be of two hour duration. A separate list of ten experiments is included here.
- The written examination in practicals for these students will be conducted at the time of practical examination of all other students.
- The written test will be of 30 minutes duration.
- The question paper given to the students should be legibly typed. It should contain a total of 15 practical skill based very short answer type questions. A student would be required to answer any 10 questions.
- A writer may be allowed to such students as per CBSE examination rules.
- All questions included in the question paper should be related to the listed practicals. Every question should require about two minutes to be answered.
- These students are also required to maintain a practical file. A student is expected to record at least five of the listed experiments as per the specific instructions for each subject. These practicals should be duly checked and signed by the internal examiner.
- The format of writing any experiment in the practical file should include aim, apparatus required, simple theory, procedure, related practical skills, precautions etc.
- Questions may be generated jointly by the external/internal examiners and used for assessment.
- The viva questions may include questions based on basic theory / principle / concept, apparatus / materials / chemicals required, procedure, precautions, sources of error etc.

Class XII

A. Items for Identification/ familiarity with the apparatus for assessment in practicals (All experiments)

- Soil from different sites- sandy, clayey, loamy; Small potted plants, Cactus/*Opuntia* (model), Large flowers, Maize inflorescence.
- Model of *Ascaris* and developmental stages of frog highlighting morula and blastula.
- Beaker, flask, petri plates, test tubes, aluminium foil, paint brush, bunsen burner/spirit lamp/water bath.
- Starch solution, iodine, ice cubes.

A. List of Practicals

1. Study of the soil obtained from at least two different sites for their texture.
2. Study of flowers adapted to pollination by different agencies (wind, insects).
3. Identification of T.S of morula or blastula of frog (model).
4. Preparation of pedigree charts of genetic traits such as rolling of tongue, colour blindness.
5. Identify common disease causing organisms like *Ascaris (Model)* and learn some common symptoms of the disease that they cause.
6. Comment upon the morphological adaptations of plants found in xerophytic conditions.

Note: The above practicals may be carried out in an experiential manner rather than recording observations.

MATHEMATICS

INTERNAL ASSESSMENT	20 MARKS
Periodic Tests (Best 2 out of 3 tests conducted)	10 Marks
Mathematics Activities 10 Marks	

Note: For activities NCERT Lab Manual may be referred

Conduct of Periodic Tests:

Periodic Test is a Pen and Paper assessment which is to be conducted by the respective subject teacher. The format of periodic test must have questions items with a balance mix, such as, very short answer (VSA), short answer (SA) and long answer (LA) to effectively assess the knowledge, understanding, application, skills, analysis, evaluation and synthesis. Depending on the nature of subject, the subject teacher will have the liberty of incorporating any other types of questions too. The modalities of the PT are as follows:

a) **Mode:** The periodic test is to be taken in the form of pen-papertest.

b) **Schedule:** In the entire Academic Year, three Periodic Tests in each subject may be conducted as follows:

Test	Pre Mid-term (PT-I)	Mid-Term (PT-II)	Post Mid-Term (PT-III)
Tentative Month	July-August	November	December-January

This is only a suggestive schedule and schools may conduct periodic tests as pertheir convenience. The winter bound schools would develop their own schedule with similar time gaps between two consecutive tests.

c) **Average of Marks**: Once schools complete the conduct of all the three periodic tests, they will convert the weightage of each of the three tests into ten marks each for identifying best two tests. The best two will be taken into consideration and the average of the two shall be taken as the final marks for PT.

d) The school will ensure simple documentation to keep a record of performance as suggested in detail circular no.Acad-05/2017.

e) **Sharing of Feedback/Performance**: The students' achievement in each test must be shared with the students and their parents to give them an overview of the levelof learning that has taken place during different periods. Feedback will help parents formulate interventions (conducive ambience, support materials, motivation and morale-boosting) to further enhance learning. A teacher, while sharing the feedback with student or parent, should be empathetic, non- judgmental and motivating. It is recommended that the teacher share best examples/performances of IA with the class to motivate all learners.

Assessment of Activity Work:

Through out the year any 10 activities shall be performed by the student from the activities given in the NCERT Laboratory Manual for the respective class (XI or XII) which is available on the link : http://www.ncert.nic.in/exemplar/labmanuals.htmla record of the same may be kept by the student. An year end test on the activity may be conducted

The weightage are as under:

- The activities performed by the student through out the year and record keeping : 5 marks
- Assessment of the activity performed during the year end test: 3 marks
- Viva-voce : 2 marks

HOME SCIENCE

PRACTICALS FOR CLASS XII

UNIT II NUTRITION, FOOD SCIENCE AND TECHNOLOGY

1. Modification of normal diet to soft diet for elderly person.
2. Development and preparation of supplementary foods for nutrition programme.
3. Planning a menu for a school canteen or mid-day meal in school for a week.
4. Design, prepare and evaluate a processed food product.
5. Qualitative test for food adulteration in: pure ghee, tea leaves, whole black pepper, turmeric powder, milk, asafoetida.

UNIT III HUMAN DEVELOPMENT AND FAMILY STUDIES

6. Preparation and use of any one teaching aid to communicate socially relevant messages for children/ adolescents /adults in the community.

OR

Preparation of any one toy for children (age appropriate) using locally available and indigenous material

UNIT IV FABRIC AND APPAREL

7. Preparation of any one article using applied textile design techniques; tie and dye/batik/block printing.
8. Remove different types of stains from white cotton cloth –Ball pen, curry, grease, ink, lipstick, tea and coffee.

UNIT V RESOURCE MANAGEMENT

9. Evaluate any one advertisement for any job position.
10. Develop a leaflet/pamphlet for Consumer Education and Protection on any one of the following-

a) Consumer Protection Act (CPA)
b) Consumer responsibilities
c) Consumer organization
d) Consumer Problem

PROJECT

ANY ONE OF THE FOLLOWING PROJECT MAY BE UNDERTAKEN AND EVALUATED-

1. Study of an integrated community based, nutrition/health programme being implemented in own area, with reference to-

a) Programme objectives

b) Focal Group/Beneficiaries

c) Modalities of implementation

2. Visit to the neighbouring areas and interview two adolescents and two adults regarding their perception of persons with special needs.

3. Profile any two person (child/adult) with special needs to find out their diet, clothing, activities,physical and psychological needs.

4. Planning any five messages for nutrition, health and life skills using different modes of communication for different focal groups.

5. Market survey any five processed foods with their packaging and label information.

SCHEME FOR PRACTICAL EXAMINATION **30 Marks**

1. Project (5 marks)

2. Modification of any one family meal for elderly person. Preparing any one of the modified dish. (5 marks)

OR

Development and preparation of any one supplementary food for pre-schooler (2-6 years) nutrition programme.

OR

Planning a menu for school canteen and preparing any one nutritious dish.

3. Identify adulterant using chemical test in any one of the following- pure ghee, tea leaves, whole black pepper, turmeric powder, milk, asafoetida.

) (2 marks)

4. Prepare a sample using applied textile design techniques tie and dye/batik/block printing. (4 marks)

5. Remove any one of the stain from white cotton cloth –Ball pen, curry, grease, ink, lipstick, tea, coffee. (2 marks)

6. Develop a leaflet/pamphlet for Consumer Education and Protection on any one of the following- (5 marks)

a) Consumer Protection Act (CPA)

b) Consumer responsibilities

c) Consumer organization

d) Consumer Problems

7. File (5 marks)

8. Viva (2 marks)

COMPUTER SCIENCE

Practical

S. No.	Area	Marks (Total=30)
1	**Lab Test:** 1. Python program (60% logic + 20% documentation + 20% code quality) 2. Small Python program that sends a SQL query to a database and displays the result. A stub program can be provided.	**7** **5**
2	**Report file:** Minimum 20 Python programs. Out of this at least 4 programs should send SQL commands to a database and retrieve the result	**7**
3	**Project** (that uses the concepts that have been learnt in Class 11 and 12)	**8**
4	**Viva voce**	**3**

5. Suggested Practical List:

Python Programming

- Read a text file line by line and display each word separated by a #.
- Read a text file and display the number of vowels/ consonants/ uppercase/ lowercase characters in the file.
- Create a binary file with name and roll number. Search for a given roll number and display the name, if not found display appropriate message.
- Create a binary file with roll number, name and marks. Input a roll number and update the marks.
- Remove all the lines that contain the character `a' in a file and write it to another file.
- Write a random number generator that generates random numbers between 1 and 6 (simulates a dice).
- Write a Python program to implement a stack and queue using a list data-structure.
- Take a sample of ten phishing e-mails (or any text file) and find most commonly occurring word(s)

Database Management

- Create a student table and insert data. Implement the following SQL commands on the student table:
  ALTER table to add new attributes / modify data type / drop attribute
  UPDATE table to modify data
  ORDER By to display data in ascending / descending order
  DELETE to remove tuple(s)
  GROUP BY and find the min, max, sum, count and average
- Similar exercise may be framed for other cases.
- Integrate SQL with Python by importing the MySQL module.

6. Project

The aim of the class project is to create something that is tangible and useful using Python / Python and SQL connectivity. This should be done in groups of two to three students and should be started by students at least 6 months before the submission deadline. The aim here is to find a real world problem that is worthwhile to solve.

Students are encouraged to visit local businesses and ask them about the problems that they are facing. For example, if a business is finding it hard to create invoices for filing GST claims, then students can do a project that takes the raw data (list of transactions), groups the transactions by category, accounts for the GST tax rates, and creates invoices in the appropriate format. Students can be extremely creative here. They can use a wide variety of Python libraries to create user friendly applications such as games, software for their school, software for their disabled fellow students, and mobile applications, Of course to do some of these projects, some additional learning is required; this should be encouraged. Students should know how to teach themselves.

The students should be sensitized to avoid plagiarism and violations of copyright issues while working on projects. Teachers should take necessary measures for this.

PHYSICAL EDUCATION

Practical **Max. Marks 30**

01. Physical Fitness Test - 6 Marks
02. Proficiency in Games and Sports (Skill of any one Game of choice from the given list*)- 7 Marks
03. Yogic Practices - 7 Marks
04. Record File ** - 5 Marks
05. Viva Voce (Health/ Games & Sports/ Yoga) - 5 Marks

* Basketball, Football, Kabaddi, Kho-Kho, Volleyball, Handball, Hockey, Cricket, Bocce & Unified Basketball [CWSN (Children With Special Needs - Divyang)]

*****Record File shall include:***

Practical-1: Fitness tests administration for all items.
Practical-2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.
Practical-3: Any one game of your choice out of the list above. Labelled diagram of field & equipment (Rules, Terminologies & Skill)