

Karnataka School Examination and Assessment Board **Guidelines for Internal Assessment**

A project is a whole hearted purposeful activity carried out to its completion in natural setting.

- – William Kilpatric

A project is an activity performed outside the classroom to extend the learning beyond text books and satisfying the objective of learning a particular content. It is a task for students to involve whole heartedly with a purpose of achieving the pre defined learning outcomes; it should be purposeful, meaningful and should enable the learner to extend the learning outside the classrooms.

A project is an extension of theoretical learning and makes the students to apply their knowledge and accomplish the task within the specified time. It provides self learning and promotes to develop different skills among the students.

To ensure that the students learning is not solely dependent on final PUC exam, school based internal assessments for 20 marks are proposed to be introduced from 2023-24 academic year for both first and second year students. Such assessments will provide an opportunity to assess student's progress continuously and comprehensively throughout the academic year. These periodic assessments provide feedback and insight to teachers regarding students need and help them to improve instruction and plan remedial teaching. The feedback also helps students to be better aware of their strengths and weaknesses. Internal assessment also gives multiple opportunities to demonstrate learning which helps in reducing the pressure associated with a single high-stakes final exam and promotes a more balanced and stress-free learning environment. These assessments provide more holistic assessment of a

students overall performance and abilities beyond what can be measured in a written exam.

As a Prerequisite to this students have to submit one assignment or project for 10 marks for each non practical subject.

For the year 2023-24, KSEAB has planned to propose set of illustrative topics for assignments and projects, which in turn are used to prepare and finalise the final list of topics by district subject lecturers' forum. The same shall be approved by Deputy Director of Pre University Education of each district, based on the local needs.

The titles prepared by the subject forum are based on feasibility, availability of the resources, time and cost effectiveness and cater to the objectives which are framed, opportunity to explore, collection of data and information, field visits, forms required to collect opinions and other issues...

Lecturers of the particular subject in that college will act as facilitators and guide the students in successful completion of the project. **“What to do”** and **“How to do”** to be guided properly. Lecturers must give the titles chosen by the students of their choice from the list, assigning one topic to each student. If the students are more than the number of topics, few topics can be repeated among the students.

The assessment is done for 10 marks; the 10 marks are distributed as follows,

- 1) Writing of project: 5 marks
- 2) Presentation : 3 marks
- 3) Viva voce :2 marks

After the completion of the process, the project to be evaluated and marks are to be upload in SATS portal. Failure in uploading the marks to SATS portal in stipulated time will lead to non consideration of the said marks for final examination results.

Role of the Lecturers in the project completion.

- 1) Must facilitate and guide the students in each stage of the project.
- 2) It should not be mechanical activity- make the student to participate actively in completing the project.
- 3) Must ensure the active participation, contribution and involvement of the students in their project.
- 4) On and off assessment and check is to be done to ensure smooth completion of the project within the stipulated time.
- 5) The entire process of internal assessment shall be completed before 20th of December of each year.
- 6) Final assessment of the project must be done very objectively and records shall be maintained in the institution.(at least for 4 months after the final examination result)

Assessment plan for 2023-24 academic year-Weightage

20% weightage will be allotted to internal assessments and 80% will be allotted for the board examination for the following subjects-

1.Kannada	7.Marathi	13.History	19.Sociology	25.Education
2.English	8.Urdu	14.Economics	20.Political Science	26.Basic Maths
3.Hindi	9.Sanskrit	15.Logic	21.Statistics	
4.Tamil	10.Arabic	16.Geography	22.Psychology	
5.Telugu	11.French	17.Business studies	23.Mathematics	
6.Malayalam	12.Optional Kannada	18.Accountancy	24.Geology	

Similar to earlier years, 30% weightage will be allotted to internal assessments and 70% will be allotted for the board examination for the following subjects-

1. Physics	5. Computer Science	9.Automobile
2. Chemistry	6. Home Science	10.Beauty and Wellness
3. Biology	7. Information Technology	11. Hindustani Music
4. Electronics	8. Retail	

NOTE:

The illustrative topics in each subject are given for reference only. The subject forum in each district will provide the full and final list of projects and assignments for further usage at district/college level.

1. ಕನ್ನಡ

1. ಪದ್ಯದ ಭಾವಾರ್ಥರಚನೆ
2. ಸಮಾನಾರ್ಥಕಗಳು ನಾನಾರ್ಥಕಗಳು
3. ದೇಶ್ಯ- ಅನ್ಯದೇಶ್ಯಪದಗಳು, ತತ್ಸಮ- ತದ್ಭವಗಳು
4. ನುಡಿಗಟ್ಟುಗಳ ಸಂಗ್ರಹ- ಬಳಕೆ
5. ದ್ವಿರುಕ್ತಿಗಳ ಸಂಗ್ರಹ- ಬಳಕೆ
6. ನಾಮಪದಗಳು, ಗುಣವಾಚಕಗಳು, ವಿಭಕ್ತಿಪ್ರತ್ಯಯಗಳು
7. ಕ್ರಿಯಾಪದಗಳು, ಧಾತು, ಕಾಲಸೂಚಕಗಳು, ನಿಷೇಧಾರ್ಥಕರೂಪ
8. ಗಾದೆಗಳಸಂಗ್ರಹ, ವಿಸ್ತರಣೆ, ಬಳಕೆ
9. ಲೇಖನಚಿಹ್ನೆಗಳು, ಅವುಗಳ ಮಹತ್ವ ಮತ್ತು ಬಳಕೆ

2. English

Prepare any one of the topics for the project with reference to work book

1. The Ideas/issues highlighted in the chapters/poems/dramas given in the prescribed book.
2. Summarizing/Precise writing
3. Essay writing on any topic
4. Reports on situations/current affairs
5. Interpreting graphs & charts
6. Conversation between two people
7. Uses of Dictionaries and supportive materials
8. Students listen to podcasts/radio/TV documentary on a topic & prepare a report countering or agreeing with the speakers. Write 800-1000 words report, submit & take Viva on the topic.
9. Interview – Based research
10. Prepare charts on parts of speech, tenses, verb forms, framing questions in daily routine, etc.

3. Hindi

विषयः (कोईएक)

- हिन्दीमेंसाक्षात्कार (किसीमहानव्यक्तियोंकासाक्षात्कारजोकिसीभीक्षेत्रमेंसाधनाकरचुकेहो)
- हिन्दीमेंयात्रावृत्तांत (कहींकीगईयात्राकावृत्तांत)
- समाजसेवकोंकेसम्बन्धमेंहिन्दीमेंजानकारी
- हिन्दीलेखकऔरकवियोंकेजीवनऔरसाधनाएँ।
- हिन्दीभाषाकेकिसीविद्वानसेभेंटवार्ताऔरउससेसंबंधितपरियोजना।
- हिन्दीदिवससामारोहकाअयोजनऔरउसपरविस्तृतपरियोजना

4. Tamil

Below are the topics which can be given to the students for project work.

- Critically appraise the various aspects of Tamil Folklore
- Enact short sketches from various Tamil epics
- Write a concise report on your favourite historical tourist spot in Karnataka. Highlight the history behind the venue
- Visit various temples in-and-around the city of Bengaluru and report about the temples' highlights and their importance in terms of religion, culture and history
- Present various current affairs and social issues as a news reporter in a video format
- Review the enticing cuisine for Karnataka with emphasis on how the style of cooking and flavours change with respect to the geography
- Critique for favourite Tamil song in terms for the literary aspects
- Compare and contrast the architectural aspects of the Hoysala kingdom with that of the Chola empire.
- Select any renowned Woman author's work (novel/short story) and critically analyse adding in your conclusions.

5. Telugu

Below are the topics which can be given to the students for project work.

- Go on a trip to Karnataka with your faculties
- Describe the beauty of the Himalayas
- Comparative studies of kuvempu kavi and kandu kuriveeresalingampanthulu
- Comparative education methods in Karnataka (State board/ICSE/CBSE/IGISE)
- Different festivals and culture

6. Malayalam

- Oral and written communication based on language.
- The significance of learning many languages as a young child.
- Language as primary mode of communication.
- Colloquial language effect in formal communication.

7. Marathi

- 1) Listening Skill
 - a) Listening Marathi Story & Answering the set of question on it.
 - b) Dictation
- 2) Reading Skill
 - a) Reading Marathi Text,
 - b) Marathi speech, Debate Competition, Verse summary etc.
 - c) Reading Arabic newspapers, magazines, etc.
 - d) Reciting the Arabic poems
- 3) Speaking Skill
 - a) Speak in Marathi on Any topic.
 - b) Debating (for & against) Prose and verse recitation

8. Urdu

Choose one of the suggested topics below for a project or choose a topic of your own.

- Collect quotes and golden sayings of celebrities, along with their pictures.
- Set up a questionnaire to interview an author or poet in your area, then write a short biographical essay based on their responses.
- Find and analyze any three poems written on "Karnataka"
- Collect photos and introductions of any ten important writers and poets of Karnataka.
- Write One Act Play yourself and present it by recording an audio and video.
- Create a story by cutting pictures from newspaper and write dialogues.
- Write a report by using photographs taken during a visit to a historical site.
- Learn about the impact of social media on culture by interviewing different people and prepare a report.

• وقت کی قدر و قیمت پر مشابہ کے اشعار اور اقوالِ زرین، ان کی تصویروں کے ساتھ اکٹھا کریں۔

- اپنے علاقے کے کسی ادیب و شاعر سے انٹرویو کے لیے سوالنامہ مرتب کریں، پھر ان سے جوابات حاصل کر کے مختصر سوانحی مضمون لکھیں۔
- "کرنائٹ" پر لکھی گئی کوئی تین نظمیں تلاش کر کے انکا جائزہ لیں۔
- کرنائٹ کے کوئی دس اہم ادیبوں اور شاعروں کی تصاویر مع تعارف جمع کریں۔
- ڈراما خود تحریر کر کے آڈیو ویڈیو ریکارڈ کر کے پیش کریں۔
- اخبار سے تصاویر کاٹ کر ایک کہانی ترتیب دیں اور مکالمے لکھیں۔
- کسی تاریخی مقام کی سیر کے دوران لی گئی تصاویر کا استعمال کرتے ہوئے رپورٹ لکھیں۔
- مختلف لوگوں سے انٹرویو لے کر تہذیب و ثقافت پر سوشل میڈیا کے اثرات کے بارے میں جانیں اور رپورٹ تیار کریں۔

9. Sanskrit

अधोऽलिखितेषु एकं विषयमधिकृत्य 'संस्कृतकाव्ययोजनम्' लिखत ॥

1. संस्कृत कविपरिचयः.
2. संस्कृत कृतिपरिचयः.
3. संस्कृत विज्ञानम्.
4. प्रवासकथनम्.
5. संस्कृत लौकिकन्यायाः
6. संस्कृत संधिः ।
7. समासः ।
8. सुबन्तः । (नामपदम्)
9. तिङन्तः। (क्रियापदम्)
10. प्रयोगः।
11. अलंकारः।
12. समानार्थक पदानि
13. विरुद्धार्थक पदानि च
14. सुभाषितानि ।

Chose any one topic from the following and write the project:

- Introduction to Sanskrit Poets.

- Introduction to Sanskrit works.
- Science in Sanskrit
- Trvelogue
- Sanskrit loukikanyayah.
- Sanskrit Sandhi.
- Samasa.
- Subanta.(Noun)
- Tinganta(Verb)
- Prayoga.
- Alankara.
- Synonyms and antonyms.
- Subhasitani.

10. Arabic

- Introduction of Arabic Poets.
- Introduction of Modern Arabic Language
- Summarizing/ Precise writing
- Essay writing on any topic
- Reports on situations/current affairs
- Conversation between two people
- Students listen to podcasts/radio/TV documentary on a topic & prepare a report countering or agreeing with the speakers. Write a report, submit & take Viva on the topic.

11. French

Monuments of France, French Cuisine, Fashion (Haute-Couture)

Student can select any one or two of his/her classmates as partners & role play any 1 of the 10 situational based dialogues from the textbook.

Core Subjects

12. Optional Kannada

1. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಂಪರೆಯ ಪರಿಚಯ.
2. ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳ ಪರಿಚಯ.
3. ಅಲಂಕಾರಗಳು - ರೂಪಕ, ಉಪಮಾ... ಇತ್ಯಾದಿ. ಉದಾಹರಣೆ ಸಮೇತ ವಿವರಣೆ.
4. ಛಂದಸ್ಸು - ಕಂದ, ಷಟ್ಪದಿ, ತ್ರಿಪದಿ, ವೃತ್ತ... ಇತ್ಯಾದಿ. ಪದ್ಯಪ್ರಕಾರಗಳ ವಿವರಣೆ.
5. ಕನ್ನಡ ಭಾಷೆಯ ಉಗಮ ಮತ್ತು ಬೆಳವಣಿಗೆ.
6. ಸ್ವರಚಿತ ಬರಹ : ಕತೆ, ಕವಿತೆ, ಅನುಭವ ಕಥನ... ಇತ್ಯಾದಿ
7. ಸ್ಥಳೀಯ ಸಾಹಿತ್ಯ ಸಮ್ಮೇಳನಗಳಲ್ಲಿ ಭಾಗವಹಿಸಿ ವರದಿ ಮತ್ತು ನಿರ್ಣಯಗಳ ಸಂಗ್ರಹಣೆ.
8. ವಿವಿಧ ಪ್ರಶಸ್ತಿ ಪುರಸ್ಕೃತ ಕವಿಗಳು, ಲೇಖಕರು, ಕೃತಿಗಳ ಪರಿಚಯಾತ್ಮಕ ಲೇಖನ ತಯಾರಿಕೆ.
9. 'ಸೌಜನ್ಯ ವಿದೂರನಾದೆನ್' ಕಾವ್ಯಭಾಗದ ಶಿವಾರ್ಜುನರ ಸಂಭಾಷಣಾ ರೂಪ.
10. ಹರಿಹರನ ರಗಳೆಗಳಲ್ಲಿ ಕಾಣುವ ಗುಪ್ತಭಕ್ತಿ ಅನಾವರಣ.
11. ಅಲ್ಲಮ-ವಿಮಲೇಯರ ಮಾತುಕತೆ ಸಂಭಾಷಣಾ ರೂಪ.
12. ನೀಲಾಂಜನೆ, ಮಾಯೆ, ನಾಗವೇಣಿ ಪಾತ್ರಗಳು ಮತ್ತು ಸಂಚಿಹೊನ್ನಮ್ಮ ನಿರೂಪಿಸಿದ ಪಾತಿವ್ರತ್ಯ ಧರ್ಮದ ಸ್ತ್ರೀವಾದಿನೆಲೆಯ ಅಧ್ಯಯನ.
13. ಜಲಗಾರಶಿವ ಮತ್ತು ಗುಡಿಯಶಿವಪಾತ್ರಗಳ ತೌಲನಿಕಅಧ್ಯಯನ.
14. ನಿರ್ದಿಷ್ಟ ಸಾಹಿತ್ಯ ಕೃತಿಗಳ ಓದು ಮತ್ತು ಚರ್ಚೆ.
15. ಸ್ಥಳೀಯ ಲೇಖಕರ ಸಂದರ್ಶನ.
16. ಜನಪದ ಕ್ಷೇತ್ರಕಾರ್ಯ- ಸಾಹಿತ್ಯ, ಕಲೆ, ಸಂಸ್ಕೃತಿ ಹಾಗೂ ಆಚರಣೆಗಳ ಕುರಿತು ಮಾಹಿತಿ ಸಂಗ್ರಹಣೆ.
17. ನಿರ್ದಿಷ್ಟ ವಿಷಯಗಳ ಕುರಿತ ವಿದ್ಯಾರ್ಥಿಗಳಿಂದ ವಿಚಾರ ಸಂಕಿರಣ
18. ಭಾಷಾ ಪ್ರಯೋಗಾಲಯದ ರಚನೆ.
19. ಪಠ್ಯಾಧಾರಿತ ನಾಟಕ, ಕತೆಗಳ ರಂಗಪ್ರಯೋಗ.
20. ಹಳಗನ್ನಡ ಕಾವ್ಯಗಳ ಓದು ಮತ್ತು ಪ್ರಬಂಧ ತಯಾರಿಕೆ.
21. ಪಠ್ಯದ ಅಭ್ಯಾಸದ ಕೊನೆಯಲ್ಲಿರುವ ಚಟುವಟಿಕೆಗಳನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ನಿಯೋಜಿಸುವುದು.

13. History

- Archaeological Excavations in Karnataka and new perspectives.
- New dimension of Karnataka Tourism
- The History and culture the vedic period
- Basavanna Philosophy.
- Evolution of Architectural designs in Karnataka.
- Comparative study of north-India architecture and south India architecture.
- A vision of Kempe Gowda.
- Synthesis of Hindu and Muslim – A Vision of Kabir
- The Mystical dimensions of sufism
- Emergence of Jainism in Karnataka.
- Swamy Vivekananda – A youth icon.
- Vishweshwaraiah – A Maker of modern Mysuru.
- Land Revenue system in Karnataka- before independence after independence (any one)
- Legacy of English Education in India.and it's impact on Karnataka
- 1857 Revolt: A first war of Indian independence
- Buddhism in Karnataka
- Formation of Indian Constitution.
- Gandhian Thoughts and international Peace.

- ಕರ್ನಾಟಕದಲ್ಲಿ ಮಠಾತ್ಮ ಉತ್ಪಲನ ಮತ್ತು ಹೊಸ ದೃಷ್ಟಿ ಕೋನಗಳು
- ಕರ್ನಾಟಕ ಪ್ರವಾಸೋದ್ಯಮದ ಹೊಸ ಆಯಾಮಗಳು
- ವೇದಗಳ ಕಾಲದ ಇತಿಹಾಸ ಮತ್ತು ಸಂಸ್ಕೃತಿ
- ಬಸವಣ್ಣನ ಸಿದ್ಧಾಂತ
- ಕರ್ನಾಟಕದಲ್ಲಿ ವಾಸ್ತು ಶಿಲ್ಪ ಶೈಲಿಯ ವಿಕಾಸ
- ಉತ್ತರ ಮತ್ತು ದಕ್ಷಿಣ ಭಾರತದ ವಾಸ್ತು ಶಿಲ್ಪ ಶೈಲಿ-ಒಂದು ತುಲನಾತ್ಮಕ ಅಧ್ಯಯನ

- ಕೆಂಪೇಗೌಡರ ದೂರ ದೃಷ್ಟಿ
- ಹಿಂದೂ ಮತ್ತು ಮುಸ್ಲಿಂ ಸಮ್ಮಿಲನ- ಕಬೀರರ ದೃಷ್ಟಿಕೋನ
- ಕರ್ನಾಟಕದಲ್ಲಿ ಜೈನ ಧರ್ಮದ ಅಸ್ತಿತ್ವ
- ಸೂಫಿ ಪಂಥದ ಅತೀಂದ್ರಿಯ ಆಯಾಮಗಳು
- ಸ್ವಾಮಿ ವಿವೇಕಾನಂದ - ಯುವಕರ ಪ್ರತೀಕ
- ವಿಶ್ವೇಶ್ವರಯ್ಯ- ಆಧುನಿಕ ಮೈಸೂರಿನ ನಿರ್ಮಾಪಕ
- ಕರ್ನಾಟಕದಲ್ಲಿ ಭೂಕಂದಾಯ ವ್ಯವಸ್ಥೆ- ಸ್ವಾತಂತ್ರ್ಯ ಪೂರ್ವ ಮತ್ತು ಸ್ವಾತಂತ್ರ್ಯ ನಂತರ (ಯಾವುದಾದರೂ ಒಂದು.)
- ಭಾರತದಲ್ಲಿ ಇಂಗ್ಲೀಷ್ ಶಿಕ್ಷಣಕ್ಕೆ ಬ್ರಿಟಿಷರ ಕೊಡುಗೆ ಮತ್ತು ಕರ್ನಾಟಕದ ಮೇಲೆ ಅದರ ಪ್ರಭಾವ.
- 1857 ದಂಗೆ -ಭಾರತದ ಮೊದಲ ಸ್ವಾತಂತ್ರ್ಯ ಸಂಗ್ರಾಮ
- ಗಾಂಧಿ ಚಿಂತನೆ ಮತ್ತು ಅಂತರಾಷ್ಟ್ರೀಯ ಕ್ರಾಂತಿ

14. Economics

Write a report on-

1. Cashless economy.
2. Foreign exchange market.
3. Micro & small-scale industry.
4. Alternative fuel- types & importance.
5. Lack of basic infrastructure.
6. Organic farming.
7. Self-help group
8. Athmanirbhar Bharat (self-reliant India)
9. Human development index.
10. Disinvestment policy of the govt.
11. Goods and Service Tax ACT and its impact on GDP.
12. Role of Micro finance in Indian economy.
13. Analyse poverty and unemployment in India.
14. Sustainable development.
15. Black money a challenge on Indian economy.
16. Food supply channels in India.
17. Bombay stock exchange market.
18. Trends in Budgetary conditions of India.
19. Banking sector reforms.

1. ನಗದು ರಹಿತ ಆರ್ಥಿಕತೆ
2. ವಿದೇಶಿ ವಿನಿಮಯ ಮಾರುಕಟ್ಟೆ.
3. ಸೂಕ್ಷ್ಮ ಮತ್ತು ಸಣ್ಣ-ಪ್ರಮಾಣದ ಉದ್ಯಮ.
4. ಪರ್ಯಾಯ ಇಂಧನ - ವಿಧಗಳು ಮತ್ತು ಪ್ರಾಮುಖ್ಯತೆ.

- 5.ಮೂಲಸೌಕರ್ಯಗಳ ಕೊರತೆ.
- 6.ಸಾವಯವಬೇಸಾಯ.
- 7.ಸ್ವಸಹಾಯ ಗುಂಪು.
- 8.ಸ್ವಾವಲಂಬಿ ಭಾರತ
- 9.ಮಾನವ ಅಭಿವೃದ್ಧಿ ಸೂಚ್ಯಂಕ.
- 10.ಸರ್ಕಾರದ ಬಂಡವಾಳ ಹಿಂತೆಗೆತ.
11. ಸರಕು ಮತ್ತು ಸೇವಾತೆರಿಗೆ ಕಾಯಿದೆ- GDP ಮೇಲೆ ಅದರ ಪ್ರಭಾವ .
12. ಭಾರತದ ಆರ್ಥಿಕತೆಯಲ್ಲಿ ಸೂಕ್ಷ್ಮ ಹಣಕಾಸಿನ ಪಾತ್ರ.
13. ಭಾರತದಲ್ಲಿ ಬಡತನ ಮತ್ತು ನಿರುದ್ಯೋಗ - ವಿಶ್ಲೇಷಣೆ.
14. ಸುಸ್ಥಿರ ಅಭಿವೃದ್ಧಿ.
15. ಭಾರತದ ಆರ್ಥಿಕತೆಯಲ್ಲಿ ಕಪ್ಪುಹಣ -ಒಂದುಸವಾಲು.
16. ಭಾರತದಲ್ಲಿ ಆಹಾರಪೂರೈಕೆ ಮಾರ್ಗ.
17. ಬಾಂಬೆಷೇರು ವಿನಿಮಯ ಮಾರುಕಟ್ಟೆ .
18. ಭಾರತದ ಬಜೆಟ್ ಸ್ಥಿತಿಯ ಪ್ರವೃತ್ತಿಗಳು.
- 19.ಬ್ಯಾಂಕಿಂಗ್ ಕ್ಷೇತ್ರ ಸುಧಾರಣೆಗಳು .

15. Logic

1. Collect the information by Watching activities in Court
2. collect the voter information through SVEP
3. Method t motivate the people conserved the water resources
4. Prepare brief note on the activities can be conduct, to conserve environment
5. Logical fallacies.
6. JS Mill Method
7. Discuss about the disadvantages of using mobile phone by students.
8. Write about the Importance of computer
9. Discuss the role of Roads in Country Development
- 10.Discuss the Empowerment of Women.
- 11.Explain the role of Students in “Swatchha Bharath Andolan”.
- 12.Man and rational animal.
- 13.Logical fallacies.

16. Geography

A few suggested topics for class II PUC Geography projects are;

- Human Economic Activities (Primary Activities- Agriculture, Animal Husbandry, Dairying, Mining, Fishing, etc.),
- Settlement Pattern (Rural and Urban)
- Population Growth and their impacts in India
- Composition of Population in India

- Multi-Purpose River Valley Projects (nearby / in India)
- New Dimensions of Agriculture in India.
- Food crops of the taluk/district where your residence/college is located.
- Commercial crops of the taluk/districts where your residence/college is located.
- Non-Conventional Energy Resources.
- Production of Electricity (Hydal, Thermal, Atomic power, Solar, wind, Tidal and Other)
- Nearby Industries or Taught in the syllabus.
- Nearby Road/Rail/water Transport Network or Taught in the syllabus.
- Geographical perspective on Environmental issues (various pollutions) Planning and Sustainable.

ದ್ವಿತೀಯ ಪಿಯುಸಿ ಭೂಗೋಳಶಾಸ್ತ್ರ ಪಠ್ಯಕ್ರಮದಲ್ಲಿ ಚರ್ಚಿಸಲಾಗುವ ಸ್ಥಳೀಯ, ಪ್ರಾದೇಶಿಕ/ರಾಷ್ಟ್ರೀಯ ಮತ್ತು ಜಾಗತಿಕಮಟ್ಟದಲ್ಲಿ ಯಾವುದೇ ಸಮಸ್ಯೆಗಳ ಕುರಿತು ಭೌಗೋಳಿಕ ದೃಷ್ಟಿಕೋನವನ್ನು ಹೊಂದಿರುವ ವಿಷಯಗಳು ಅಂದರೆ; ದ್ವಿತೀಯ ಪಿಯುಸಿ ಭೂಗೋಳಶಾಸ್ತ್ರ ಯೋಜನಾಕಾರ್ಯ / ನಿಯೋಜಿತಕಾರ್ಯ ಸಂಬಂಧಿಸಿದ ಮಾಡಿರುವ ಕೆಲವುಶೀರ್ಷಿಕೆಗಳು.

- ಮಾನವ ಆರ್ಥಿಕ ಚಟುವಟಿಕೆಗಳು (ಪ್ರಾಥಮಿಕ ಚಟುವಟಿಕೆಗಳು- ಕೃಷಿ, ಪಶುಸಂಗೋಪನೆ, ಹೈನುಗಾರಿಕೆ, ಗಣಿಗಾರಿಕೆ, ಮೀನುಗಾರಿಕೆ, ಇತ್ಯಾದಿ),
- ವಸತಿಗಳ ಮಾದರಿ (ಗ್ರಾಮೀಣ ಮತ್ತು ನಗರ)
- ಭಾರತದಲ್ಲಿ ಜನಸಂಖ್ಯೆಯ ಬೆಳವಣಿಗೆ ಮತ್ತು ಅವುಗಳ ಪರಿಣಾಮಗಳು.
- ಭಾರತದಲ್ಲಿ ಜನಸಂಖ್ಯೆಯ ಸಂಯೋಜನೆ.
- ವಿವಿಧೋದ್ದೇಶ ನದಿಕಣಿವೆಯೋಜನೆಗಳು (ನಿಮಗೆ ಹತ್ತಿರವಿರುವ/ಭಾರತದ ಯಾವುದಾದರೂ)
- ಭಾರತದಲ್ಲಿ ಕೃಷಿಯ ಹೊಸ ಆಯಾಮಗಳು.
- ನಿಮ್ಮ ವಾಸಸ್ಥಳ/ಕಾಲೇಜು ಇರುವ ತಾಲೂಕು/ ಜಿಲ್ಲೆಯ ಆಹಾರದ ಬೆಳೆಗಳು.
- ನಿಮ್ಮ ವಾಸಸ್ಥಳ/ಕಾಲೇಜು ಇರುವ ತಾಲೂಕು/ಜಿಲ್ಲೆಯ ವಾಣಿಜ್ಯಬೆಳೆಗಳು.
- ಅಸಾಂಪ್ರದಾಯಿಕ ಶಕ್ತಿಸಂಪನ್ಮೂಲಗಳು.
- ವಿದ್ಯುತ್ ಉತ್ಪಾದನೆ, (ಜಲವಿದ್ಯುತ್, ಶಾಖೋತ್ಪನ್ನ, ಪರಮಾಣುಶಕ್ತಿ, ಸೌರ, ಪವನ, ಉಬ್ಬರವಿಳಿತಶಕ್ತಿ ಮತ್ತು ಇತರೆ)
- ನಿಮಗೆ ಸಮೀಪದ ಯಾವುದಾದರೂ ಕೈಗಾರಿಕೆಗಳು ಅಥವಾ ಪಠ್ಯಪುಸ್ತಕದಲ್ಲಿರುವ ಯಾವುದಾದರೂ ಕೈಗಾರಿಕೆಗಳು.
- ನಿಮಗೆ ಸಮೀಪದ ರಸ್ತೆ/ರೈಲು/ಜಲಸಾರಿಗೆ ಜಾಲ ಅಥವಾ ಪಠ್ಯಪುಸ್ತಕದಲ್ಲಿರುವ/ಭೋಧಿಸಲಾಗುವ ಯಾವುದಾದರೊಂದು

- ಪರಿಸರ ಸಮಸ್ಯೆಗಳು (ವಿವಿಧ ಮಾಲಿನ್ಯಗಳು) ಮತ್ತು ಅವುಗಳ ಮೇಲೆ ಭೌಗೋಳಿಕ ದೃಷ್ಟಿಕೋನ. ಯೋಜನೆ ಮತ್ತು ಸುಸ್ಥಿರ ಅಭಿವೃದ್ಧಿ.

17. Business Studies

1 .Visit any form of business organisation and critically examine the Principles of Management followed by them. Based on your observation write a report of your findings and suggestions.

2 . Assuming that you are a Marketing manager, select any one product of your choice and suggest the elements of Marketing mix you adopt to capture maximum market share.

1. ಯಾವುದಾದರೂ ಒಂದು ಪ್ರಕಾರದ ವ್ಯವಹಾರ ಸಂಘಟನೆಗೆ ಭೇಟಿ ನೀಡಿ ಅವರು ಅನುಸರಿಸುವ ನಿರ್ವಹಣೆಯ ತತ್ವಗಳನ್ನು ವಿಮರ್ಶಾತ್ಮಕವಾಗಿ ಪರೀಕ್ಷಿಸಿ. ನಿಮ್ಮ ವೀಕ್ಷಣೆಯ ಆಧಾರದ ಮೇಲೆ ನಿಮ್ಮ ಶೋಧನೆಗಳು ಮತ್ತು ಸಲಹೆಗಳ ವರದಿಯನ್ನು ತಯಾರಿಸಿ.
2. ನೀವು ಒಬ್ಬ ಮಾರಾಟ ಪ್ರಕ್ರಿಯೆಯ ವ್ಯವಸ್ಥಾಪಕರೆಂದು ಭಾವಿಸಿ, ಯಾವುದಾದರೂ ಒಂದು ಉತ್ಪನ್ನವನ್ನು ಆಯ್ಕೆ ಮಾಡಿಕೊಂಡು, ಮಾರುಕಟ್ಟೆಯಲ್ಲಿ ಅತಿ ಹೆಚ್ಚು ಪಾಲನ್ನು ಹೊಂದಲು ಅಳವಡಿಸಿಕೊಳ್ಳುವ ಮಾರಾಟ ಪ್ರಕ್ರಿಯೆ ಮಿಶ್ರಣದ ಮೂಲಾಂಶಗಳ ಬಗ್ಗೆ ನಿಮ್ಮ ಸಲಹೆಗಳ ವರದಿ ರಚಿಸಿ.

18. Accountancy

1. Assuming that you are an Auditor, visit any Partnership firm in your locality and collect information of Partnership agreement made by them and draft a Partnership deed according to Stamp Act.

2. Collect any one Public limited company's financial statements of two years, by using Comparative and Common size statements as a tool for analyzing the financial statements, prepare a project report on the same.

1. ನೀವು ಒಬ್ಬ ಲೆಕ್ಕ ಪರಿಶೋಧಕರೆಂದು ಭಾವಿಸಿ ನಿಮ್ಮ ಹತ್ತಿರದ ಪ್ರದೇಶದಲ್ಲಿನ ಯಾವುದಾದರೂ ಒಂದು ಪಾಲುದಾರಿಕೆ ಸಂಸ್ಥೆಗೆ ಭೇಟಿನೀಡಿ, ಅವರಿಂದ ಪಾಲುದಾರಿಕೆ ಕರಾರಿನ ಮಾಹಿತಿಯನ್ನು ಸಂಗ್ರಹಿಸಿ, ಸ್ಟಾಂಪ್‌ಕಾಯಿದೆ ಪ್ರಕಾರ, ಒಂದು ಪಾಲುದಾರಿಕಾ ಕರಾರನ್ನು ರಚಿಸಿ.
2. ಯಾವುದಾದರೂ ಒಂದು ಸಾರ್ವಜನಿಕ ಕಂಪನಿಯ 2 ವರ್ಷ ಹಣಕಾಸು ತೇಖೆಗಳ ಮಾಹಿತಿಯನ್ನು ಸಂಗ್ರಹಿಸಿ. ತುಲನಾತ್ಮಕ ಹಣಕಾಸು ತೇಖೆ ಮತ್ತು ಸಾಮಾನ್ಯ ಗಾತ್ರದ ಹಣಕಾಸು

ತಃಖ್ತೆಗಳನ್ನು ಸಾಧನಗಳನ್ನಾಗಿ ಬಳಸಿ ಹಣಕಾಸಿನ ತಃಖ್ತೆಗಳ ವಿಶ್ಲೇಷಣೆಯ ಬಗ್ಗೆ ಒಂದು
ನಿಯೋಜಿತಕಾರ್ಯವನ್ನು ಸಿದ್ಧಪಡಿಸಿ.

19. Sociology

Suggested Topics for Sociology Project work.

1. Conduct the survey of census visiting nearby ten families.
2. Report on Women's Self Help Groups.
3. Collect the data of Cultural and educational life of Tribes in your nearby area.
4. Interview the women achievers in the field of Political and Social service in your region.
5. Recent changes in joint families – A study
6. Conduct the survey on 'MGNREGA' Programme and its beneficiaries in your villages.
7. Visit and gather information about the social and economic conditions in slum areas.
8. Farmers suicide in your district - A Survey
9. Visit the nearby weekly market and prepare a report in sociological view.
10. A study of virtual market impact on modern life.
11. Report any one of the annual fair which you were participated.
12. Role of electronic media in contemporary society – A sociological study.

ದ್ವಿತೀಯ ಪಿಯುಸಿ ತರಗತಿಯ ಸಮಾಜಶಾಸ್ತ್ರದ ಯೋಜನೆಗಳು/ನಿಯೋಜನೆಗಳಿಗಾಗಿ ಕೆಲವು ಸಲಹೆ
ವಿಷಯಗಳು:

1. ನಿಮ್ಮ ಹತ್ತಿರದ ಹತ್ತು ಕುಟುಂಬಗಳ ಜನಗಣತಿಯ ಸಮೀಕ್ಷೆ ನಡೆಸಿ.
2. ಮಹಿಳಾ ಸ್ವ-ಸಹಾಯ ಸಂಘಗಳ ಬಗ್ಗೆ ವರದಿ ನೀಡಿ.
3. ನಿಮ್ಮ ಹತ್ತಿರದ ಬುಡಕಟ್ಟುಗಳ ಸಾಂಸ್ಕೃತಿಕ-ಶೈಕ್ಷಣಿಕ ಜೀವನದ ಕುರಿತು ದತ್ತಾಂಶಗಳನ್ನು ಸಂಗ್ರಹಿಸಿ.
4. ನಿಮ್ಮ ಪ್ರದೇಶದಲ್ಲಿರುವ ರಾಜಕೀಯ ಮತ್ತು ಸಮಾಜ ಸೇವಾ ಮಹಿಳಾ ಸಾಧಕರನ್ನು ಸಂದರ್ಶಿಸಿ.
5. ಪ್ರಸ್ತುತ ಅವಿಭಕ್ತ ಕುಟುಂಬಗಳಲ್ಲಿ ಆದ ಬದಲಾವಣೆಗಳನ್ನು ಕುರಿತು-ಒಂದುಅಧ್ಯಯನ.
6. ನಿಮ್ಮ ಗ್ರಾಮದ 'ನರೇಗಾ' (MGNREGA) ಯೋಜನೆ/ಕಾರ್ಯಕ್ರಮದ ಫಲಾನುಭವಿಗಳ ಕುರಿತು ಸಮೀಕ್ಷೆ ನಡೆಸಿ.

7. ನಿಮ್ಮ ಹತ್ತಿರದ ಕೊಳಚೆ ಪ್ರದೇಶಕ್ಕೆ ಭೇಟಿ ನೀಡಿ ಅವರ ಸಾಮಾಜಿಕ ಮತ್ತು ಆರ್ಥಿಕ ಸ್ಥಿತಿಗತಿ ಕುರಿತು ಮಾಹಿತಿ ಸಂಗ್ರಹಿಸಿ.
8. ನಿಮ್ಮಜಿಲ್ಲೆಯಲ್ಲಿನ ರೈತರ ಆತ್ಮಹತ್ಯೆ ಕುರಿತು ಒಂದು ಸಮೀಕ್ಷೆ ನಡೆಸಿ.
9. ನಿಮ್ಮ ಹತ್ತಿರದ ವಾರದ ಸಂತೆಗೆ ಭೇಟಿ ನೀಡಿ ಸಮಾಜಶಾಸ್ತ್ರೀಯ ದೃಷ್ಟಿಕೋನದಲ್ಲಿ ವರದಿ ತಯಾರಿಸಿ.
10. ಆಧುನಿಕಜೀವನದ ಮೇಲೆ ಅಗೋಚರ ಮಾರುಕಟ್ಟೆ ಕುರಿತುಅಧ್ಯಯನ ನಡೆಸಿ.
11. ನೀವು ಭಾಗವಹಿಸಿದ ವಾರ್ಷಿಕಜಾತ್ರೆಯ ಬಗ್ಗೆ ವರದಿ ನೀಡಿ.
12. ಸಮಕಾಲಿನ ಸಮಾಜದಲ್ಲಿ ವಿದ್ಯನ್ಮಾನ ಮಾಧ್ಯಮಗಳ ಪಾತ್ರ-ಒಂದು ಸಮಾಜಶಾಸ್ತ್ರೀಯ ಅಧ್ಯಯನ.

20.Political Science

- Discuss and gather information about the recent foreign visits of Indian prime minister and list the agreements and their benefit to India.
 - Examine election manifesto of political parties and prepare a report.
 - Collect and analyze election related pictures from newspapers during election time. Examples: campaigning, voting booths, etc and prepare a collage
 - Prepare Model parliament and explain the structure of parliament.
 - Measures to improve percentage of voting in India from election commission.
 - In India coalition governments exist in which state and the active political parties in that states.
 - Write a report on Unification of Karnataka.
 - Prepare a model of EVM instruments used in election and write a report on their functions.
 - Collect information on GOKAK REPORT and write an assignment.
 - Compare the Parliamentary systems of India and Britain and list the differences between them.
-
- ಇತ್ತೀಚಿನ ದಿನಗಳಲ್ಲಿ ಭಾರತದ ಪ್ರಧಾನಮಂತ್ರಿಯವರ ವಿದೇಶಿಪ್ರವಾಸ & ಅಲ್ಲಿ ನಡೆದ ಒಪ್ಪಂದಗಳಿಂದ ಭಾರತಕ್ಕೆ ಆದಂತಹ ಲಾಭಗಳ ಬಗ್ಗೆ ವರದಿ ಬರೆಯಿರಿ.
 - ರಾಜಕೀಯಪಕ್ಷಗಳಚುನಾವಣಾ ಪ್ರಣಾಳಿಕೆ ತತ್ವಗಳ ಕುರಿತು ಪರೀಕ್ಷಿಸಿ & ವರದಿ ತಯಾರಿಸಿ
 - ಚುನಾವಣಾ ವೇಳೆಯಲ್ಲಿ ಚುನಾವಣೆಗೆ ಸಂಬಂಧಿಸಿದ ಛಾಯಾಚಿತ್ರಗಳನ್ನು ವಾರ್ತಾಪತ್ರಿಕೆಗಳಿಂದ ಸಂಗ್ರಹಿಸಿ ವಿಶ್ಲೇಷಣೆ ಮಾಡಿ ಉದಾ:-ಚುನಾವಣಾ ಅಭಿಯಾನ, ಮತದಾನ ಕೇಂದ್ರಗಳು ಇತ್ಯಾದಿಗಳನ್ನು ಸಂಗ್ರಹಿಸಿ collage ತಯಾರಿಸಿ.
 - ಸಂಸತ್ತಿನ ಮಾದರಿಯನ್ನು ತಯಾರಿಸಿ ಸಂಸತ್ತಿನ ರಚನೆಯನ್ನು ವಿವರಿಸಿ.
 - ಶೇಕಡವಾರು ಮತದಾನವನ್ನು ಹೆಚ್ಚಿಸಲು ಚುನಾವಣಾ ಆಯೋಗ ತೆಗೆದುಕೊಂಡ ಕ್ರಮಗಳ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿಬರೆಯಿರಿ.

- ಪ್ರಸ್ತುತ ಸಮ್ಮಿಶ್ರಸರ್ಕಾರಗಳು ಅಸ್ತಿತ್ವದಲ್ಲಿರುವ ರಾಜ್ಯಗಳು ಮತ್ತು ಅಲ್ಲಿನ ರಾಜಕಾರಣದಲ್ಲಿ ಪ್ರಮುಖಪಾತ್ರವಹಿಸುತ್ತಿರುವ ರಾಜಕೀಯಪಕ್ಷಗಳ ಬಗ್ಗೆ ವರದಿ ತಯಾರಿಸಿ.
- ಕರ್ನಾಟಕ ಏಕೀಕರಣದ ಬಗ್ಗೆ ವರದಿಯನ್ನು ತಯಾರಿಸಿ.
- ಚುನಾವಣೆಗೆ ಬಳಸುತ್ತಿರುವ ಮತಯಂತ್ರದ ಸಾಧನಗಳ ಮಾದರಿ ತಯಾರಿಸಿ ಅವುಗಳ ಕಾರ್ಯನಿರ್ವಹಣೆಯ ಬಗ್ಗೆ ವರದಿ ತಯಾರಿಸಿ.
- ಗೋಕಾಕ್ ವರದಿಯ ಬಗ್ಗೆ ಮಾಹಿತಿ ಸಂಗ್ರಹಿಸಿ ಬರೆಯಿರಿ.
- ಭಾರತ ಮತ್ತು ಬ್ರಿಟನ್ನಿನ ಸಂಸದೀಯ ಸರ್ಕಾರ ಪದ್ಧತಿಯ ಬಗ್ಗೆ ತುಲನಾತ್ಮಕ ವರದಿಯನ್ನು ಬರೆಯಿರಿ.

21. Statistics

1. Collecting the data regarding the deaths and the population of two localities and draw conclusion regarding health condition using mortality rate.
 2. By collecting price list of Rice, Wheat, Oil, Dhal, Sugar & Salt, with respective suitable quantities of your localities and calculate price index numbers using Laspeyre's, Paasche's, Marshall-Edgeworth's, Dorbish-Bowley's and Fisher's methods and comment on the results.
 3. Calculate consumer price index number by collecting expenses on Food, House rent, Clothing, Fuel & light, Medicine & Education and other expenses of your family.
 4. Prepare a time series data (table), regarding the prices of petroleum (Petrol) per litre for past 10 year and fit straight line trend to this data, find the trend values and estimate the probable price in the future.
 1. By collecting mean and standard deviation of Height/Weight of students of any class of your college and using Normal distribution find the probability of randomly selected students' height/ weight is (i) less than 150Cms, (ii) more than 175 cms and (iii) between 160 & 170 cms.
 2. Compute mean and standard deviation of % Marks of 40 to 50 students of any class of your college and test whether mean marks scored by students of your college is more than 70 marks.
 3. Collect the data regarding the marks of 10 students before and after the coaching class of the subject Statistics. Test whether the coaching class is effective at 5% level of significance.
 4. Collect the price of a machine (Either of Mixture Grinder, Refrigerator, Bike, Car or Tractor) and frame the maintenance cost, resale value for 6 years and suggest when it is beneficial to replace by new one.
1. ಎರಡು ಪ್ರದೇಶಗಳ ಜನಸಂಖ್ಯೆ ಮತ್ತು ಮರಣಗಳಿಗೆ ಸಂಬಂಧಿತದತ್ತಾಂಶ ಸಂಗ್ರಹಿಸಿ, ಮರಣದರಗಳ ಮೂಲಕ ಆರೋಗ್ಯ ಸ್ಥಿತಿಗಳ ಬಗ್ಗೆ ತೀರ್ಮಾನಿಸುವುದು.

2. ನಿಮ್ಮ ಪ್ರದೇಶದಲ್ಲಿನ ಅಕ್ಕಿ, ಗೋಧಿ, ಎಣ್ಣೆ, ಬೇಳೆ, ಸಕ್ಕರೆ ಮತ್ತು ಉಪ್ಪು ಇವುಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಸೂಕ್ತ ಭಾರಗಳೊಂದಿಗೆ ಆಧಾರ ಕಾಲ ಮತ್ತು ಪ್ರಚಲಿತಕಾಲದ ಬೆಲೆ ಸಂಗ್ರಹಣೆ ಮಾಡಿ, ಲ್ಯಾಪ್‌ಟೋಪ್‌ನ, ಪಾಶ್ಚೇಯನ, ಮಾರ್ಷಲ್-ಎಡ್ಜ್‌ವರ್ಥರ್, ಡಾರ್ಬಿಶ್-ಬೌಲಿಯ ಮತ್ತು ಫಿಶರನ ಬೆಲೆ ಸೂಚ್ಯಂಕಗಳನ್ನು ಪಡೆದು, ಫಲಿತಾಂಶದ ಬಗ್ಗೆ ವಿಮರ್ಶೆ ಮಾಡುವುದು.
3. ನಿಮ್ಮ ಕುಟುಂಬವು ಆಹಾರ, ವಸತಿ, ಬಟ್ಟೆ, ಇಂಧನ & ವಿದ್ಯುತ್, ಔಷಧಿ & ಶಿಕ್ಷಣ ಹಾಗೂ ಇತರೆ ಅಂಶಗಳಿಗೆ ಮಾಡುವ ಮಾಸಿಕ ಖರ್ಚಿಗೆ ಸಂಬಂಧಿಸಿದ ಮಾಹಿತಿಗೆ ಜೀವನ ವೆಚ್ಚ ಕಂಡುಹಿಡಿದು, ವಿಮರ್ಶೆ ಮಾಡಿ.
4. ಕಳೆದ ಹತ್ತು ವರ್ಷಗಳ ಪೆಟ್ರೋಲ್ (ಪ್ರತಿ ಲೀಟರ್) ಬೆಲೆ ಸಂಗ್ರಹಣೆ ಮಾಡಿ, ಸರಳರೇಖಾ ಪ್ರವೃತ್ತಿ ನಿಯೋಜಿಸಿ, ಪ್ರವೃತ್ತಿ ಬೆಲೆಗಳನ್ನು ಪಡೆದು, ಸಂಭವನೀಯ ಮುನ್ನೂರಿ ಬೆಲೆ ಕಂಡುಹಿಡಿಯಿರಿ
1. ನಿಮ್ಮ ಕಾಲೇಜಿನ ಯಾವುದಾದರೊಂದು ತರಗತಿಯ ವಿದ್ಯಾರ್ಥಿಗಳ ಎತ್ತರ/ತೂಕಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಸರಾಸರಿ ಹಾಗೂ ನಿಯತ ವಿಚಲನೆ ಸಂಗ್ರಹಿಸಿ ಮತ್ತು ಆಕಸ್ಮಿಕವಾಗಿ ಆಯ್ದ ಒಬ್ಬ ವಿದ್ಯಾರ್ಥಿಯ ಎತ್ತರ/ತೂಕ(i) ನಿರ್ದಿಷ್ಟ ಬೆಲೆಗಿಂತಕಡಿಮೆ(ii) ನಿರ್ದಿಷ್ಟ ಬೆಲೆಗಿಂತ ಹೆಚ್ಚು (iii) ಎರಡು ನಿರ್ದಿಷ್ಟ ಬೆಲೆಗಳ ಮಧ್ಯೆ ಇರುವ ಸಂಭವತೆಗಳನ್ನು ಪ್ರಸಾಮಾನ್ಯ ವಿತರಣೆ ಉಪಯೋಗಿಸಿ ಕಂಡುಹಿಡಿಯಿರಿ.
2. ನಿಮ್ಮ ಕಾಲೇಜಿನ ಯಾವುದಾದರೊಂದು ತರಗತಿಯ 40 ರಿಂದ 50 ವಿದ್ಯಾರ್ಥಿಗಳ ಶೇಕಡಾ ಅಂಕಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಸರಾಸರಿ ಮತ್ತು ನಿಯತ ವಿಚಲನೆ ಪಡೆದು, ನಿಮ್ಮ ಕಾಲೇಜಿನ ಎಲ್ಲಾ ವಿದ್ಯಾರ್ಥಿಗಳ ಸರಾಸರಿ ಅಂಕ 70 ಕ್ಕಿಂತ ಹೆಚ್ಚಾಗಿದೆಯೇ ಎಂಬುದನ್ನು ಪರೀಕ್ಷಿಸಿ.
3. ಹತ್ತು ವಿದ್ಯಾರ್ಥಿಗಳು ಸಂಖ್ಯಾಶಾಸ್ತ್ರ ಪರೀಕ್ಷೆಯಲ್ಲಿ ತರಬೇತಿ ಮೊದಲು ಮತ್ತು ನಂತರದಲ್ಲಿ ಪಡೆದ ಅಂಕಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ದತ್ತಾಂಶ ಸಂಗ್ರಹಿಸಿ, ತರಬೇತಿ ಪರಿಣಾಮಕಾರಿ ಆಗಿದೆಯೇ ಶೇಕಡಾ 5ರ ಲಕ್ಷಾಹಾರತೆಯಲ್ಲಿ ಎಂಬುದನ್ನು ಪರೀಕ್ಷಿಸಿ.
4. ಒಂದು ಯಂತ್ರದ (Mixture Grinder, Refrigerator, Bike, Car or Tractor) ಬೆಲೆ ಸಂಗ್ರಹಿಸಿ, ಅದರ 6 ವರ್ಷಗಳ ನಿರ್ವಹಣಾ ವೆಚ್ಚ ಮತ್ತು ಮರುಮಾರಾಟ ಬೆಲೆ ರೂಪಿಸಿ, ಅದನ್ನು ಯಾವಾಗ ಹೊಸ ವಸ್ತುವೊಂದಿಗೆ ಬದಲಾಯಿಸುವುದು ಲಾಭವಾಗುವುದು ಎಂಬ ಸಲಹೆ ಕೊಡಿ.

22. Psychology

Below are the topics that can be given to the students as part of project work.

1. Coping strategies for stress.
2. Suicidal prevention.
3. Challenges of adolescence.
4. Influence of social media on Mental health.
5. Relaxation techniques and psychological well-being
6. Psychological disorders and effective measures to address the issue.
7. Assessing the adjust mental problems with the Teenagers.
8. Personality traits.
9. Communicational Skills (Verbal and Non-verbal)
10. Self-Help Skills (Self-confidence, Assertiveness, Aptitude, Anger management, Emotional stability etc.)

ಯೋಜಿತಕಾರ್ಯದ ಭಾಗವಾಗಿ ನೀಡಲಾಗಿರುವ ವಿಷಯಗಳು ಈ ಕೆಳಕಂಡಂತಿವೆ:

- ಪ್ರತಿಬಲನವನ್ನು ನಿಭಾಯಿಸುವ ತಂತ್ರಗಳು
- ಆತ್ಮಹತ್ಯೆ ತಡೆಗಟ್ಟುವಿಕೆ
- ಹದಿಹರೆಯದ ಸವಾಲುಗಳು
- ಮಾನಸಿಕ ಆರೋಗ್ಯದ ಮೇಲೆ ಸಾಮಾಜಿಕ ಮಾಧ್ಯಮದ ಪ್ರಭಾವ
- ವಿಶ್ರಾಂತಿ ತಂತ್ರಗಳು ಮತ್ತು ಮಾನಸಿಕ ಯೋಗಕ್ಷೇಮತೆ
- ಮಾನಸಿಕ ಅಪಸಾಮಾನ್ಯತೆ ಮತ್ತು ಅವುಗಳ ಪರಿಣಾಮಕಾರಿ ಪರಿಹಾರದ ಕ್ರಮಗಳು
- ಹದಿಹರೆಯದವರಲ್ಲಿ ಹೊಂದಾಣಿಕೆಯ ಸಮಾಲೋಚನೆಯನ್ನು ಮಾಪನಮಾಡುವುದು
- ವ್ಯಕ್ತಿತ್ವದ ಗುಣಲಕ್ಷಣಗಳು
- ಸಂವಹನ ಕೌಶಲಗಳು(ಭಾಷಾತ್ಮಕ ಮತ್ತು ಭಾಷಾರಹಿತ)
- ಸ್ವಾವಲಂಬನೆಯ ಕೌಶಲಗಳು (ಆತ್ಮವಿಶ್ವಾಸ, ಬಲವಾಗಿ ಪ್ರತಿಪಾದಿಸುವುದು, ವಿಶೇಷ ಬುದ್ಧಿಕ್ರಿಯಾಸಾಮರ್ಥ್ಯ, ಕೋಪನಿರ್ವಹಣೆ, ಸಂವೇಗಸ್ಥಿರತೆ ಮುಂತಾದವುಗಳು)

23. Mathematics

1. To verify that the relation R in the set of all lines in a plane, defined by
 - a. $R = \{(l, m) : l \perp m\}$ is symmetric but neither reflexive nor transitive.
2. To verify that the relation R in the set of all lines in a plane, defined by
 - a. $R = \{(l, m) : l \parallel m\}$ is an equivalence relation.
3. To demonstrate a function which is not one-one but onto.
4. To demonstrate a function which is one-one but not onto.

5. Drawing the graph of Inverse trigonometric functions $\sin^{-1}x$ and $\cos^{-1}x$ and solving the inequality $\cos^{-1}x > \sin^{-1}x$.
6. To draw the graph of $\sin^{-1}x$, using the graph of $\sin x$ and demonstrate the concept of mirror reflection (about the line $y = x$).
7. To explore the principal value of the function $\sin^{-1}x$ using a unit circle.
8. To transform the linear equations $a_1x + b_1y + c_1z = d_1$, $a_2x + b_2y + c_2z = d_2$ and $a_3x + b_3y + c_3z = d_3$ to matrix equation and solve them by using inverse of a matrix and to demonstrate consistency.
9. To sketch the graphs of a^x and $\log_a x$, $a > 0$; $a \neq 1$ and to examine that they are mirror images of each other.
10. To establish a relationship between common logarithm (to the base 10) and natural logarithm (to the base e) of the number x .
11. To find analytically the limit of a function $f(x)$ at $x = c$ and to check the continuity of the function at that point.
12. To verify that for a function f to be continuous at given point x_0 , $\Delta y = f(x_0 + \Delta x) - f(x_0)$ is arbitrarily small provided, Δx is sufficiently small
13. To understand the concepts of decreasing and increasing functions.
14. To understand the concepts of local maxima, local minima and point of inflection.
15. To understand the concepts of absolute maximum and minimum values of a function in a given closed interval through its graph.
16. To construct an open box of maximum volume from a given rectangular sheet by cutting equal squares from each corner.
17. To find the time when the area of a rectangle of given dimensions become Maximum, if the length is decreasing and the breadth is increasing at given rates.
18. To verify that amongst all the rectangles of the same perimeter, the square has the maximum area.
19. Understanding of the Methods of integration with one example each.
20. Solving Integrals of the type $\int \frac{1}{ax^2+bx+c} dx$ OR $\int \frac{1}{\sqrt{ax^2+bx+c}} dx$ with two examples each.
21. Sketch the graph of $y = |x+3|$ and evaluate $\int_{-6}^0 |x+3| dx$
22. To find the Area enclosed by a circle/ellipse with an example
23. To verify geometrically that $\vec{a} \cdot (\vec{b} + \vec{c}) = \vec{a} \cdot \vec{b} + \vec{a} \cdot \vec{c}$
24. To verify geometrically that $\vec{a} + (\vec{b} + \vec{c}) = (\vec{a} + \vec{b}) + \vec{c}$
25. To measure the shortest distance between two skew lines and verify it analytically.
26. To demonstrate the equation of a plane in normal form.

27. To explain the computation of conditional probability of a given event A, when event B has already occurred, through an example of throwing a pair of dice.
28. Bayes' theorem, Proof, illustration with 2 examples which constitute 3 or 4 partitions of sample space.

24. Geology

NOTE: Choose the topic for the project which is outside the PU-II syllabus. The intention of giving the project work to the students is to develop skill enhancement techniques.

NOTE 2: Apart from these topics, the faculty can choose the topic which will help the students to build the skills

Below are a few topics which can be given to the students for project work.

- Role of rocks in the formation of the soil
- Importance of sedimentary rocks to understand the origin and evolution of life on planet earth
- Fossils as the indicators of palaeo-life
- Importance of geological structures in ore-mineral exploration.
- Brunton compass – The students can choose to work on the brunton compass, the procedure of its working, its handling in the field, its parts, measuring the strike and dip of the rock body, etc.
- Role of ore-minerals in building up the economy of the country, example of some ore-mineral.

25. Education

NOTE: Any one of the mentioned topics need to be selected as part of the Project. The intention of giving the project work to the students is to develop the understanding, skill, application, synthesis and analysis and enhancement techniques.

Below are few suggested topics for class II PUC which can be given to the students for project work.

- A study on the role of Family and Education to improve the overall personality development of a child.
- Collect information of any 5 different types of children with special needs regarding their problems and provisions.
- Survey the Educational Status of Women Empowerment.
- “21st century- An era of Globalization” elucidate with its merits and demerits.
- How the Life skills suggested by WHO helped to improve quality of human life.
- “The excellent management and quality performance of an educational institution depends on the capabilities of its head” prepare a report.
- Collect the information and functions of quality assessment and controlling agencies in education.
- A skit demonstration on Communication skills.
 - a) A pictorial collection of various computer devices with information.
 - b) Calculate the Mean, Median and Mode by using a test scores/result with graphical representation

26. Basic Mathematics

- Linear Programming Problem (LPP)
- The practical problems in lab manual related Circles, Matrices and Determinants

ಸೂಚನೆ: ಉಲ್ಲೇಖಿಸಿದ ಯಾವುದಾದರೂ ಒಂದು ವಿಷಯವನ್ನು ಯೋಜನಾ ಕಾರ್ಯದ ಭಾಗವಾಗಿ ಆಯ್ಕೆ ಮಾಡಬೇಕಾಗುತ್ತದೆ. ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಯೋಜನಾಕಾರ್ಯವನ್ನು ನೀಡುವ ಉದ್ದೇಶವು ತಿಳುವಳಿಕೆ, ಕೌಶಲ್ಯ, ಅನ್ವಯ, ಸಂಶ್ಲೇಷಣೆ ಮತ್ತು ವಿಶ್ಲೇಷಣೆ ಮತ್ತು ಸಂವರ್ಧನೆ ತಂತ್ರಗಳನ್ನು ಅಭಿವೃದ್ಧಿಪಡಿಸುವುದಾಗಿದೆ.

ಈ ಕೆಳಗಿನ ವಿಷಯಗಳನ್ನು ಯೋಜನಾ ಕಾರ್ಯಕ್ಕಾಗಿ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ನೀಡಬಹುದು.

1. ವೈಯಕ್ತಿಕ ಭಿನ್ನತೆಯ ಕ್ಷೇತ್ರಗಳನ್ನು ಆಧರಿಸಿ ತಮಗೆ ಗೊತ್ತಿರುವ ಐದು ಜನ ವ್ಯಕ್ತಿಗಳು/ಸ್ನೇಹಿತರು ಹೇಗೆ ಭಿನ್ನ ಎಂಬುದನ್ನು ಸ್ಪಷ್ಟಪಡಿಸಿ.
2. ಐದು ವಿದ್ಯಾರ್ಥಿಗಳ ಮೇಲೆ ಯಾವುದಾದರೂ ಒಂದು ಬುದ್ಧಿಶಕ್ತಿ ಪರೀಕ್ಷಣವನ್ನು ಆಯೋಜಿಸಿ ಮತ್ತು ಅವರನ್ನು ಬುದ್ಧಿಲಬ್ಧದ ಆಧಾರದ ಮೇಲೆ ವರ್ಗೀಕರಿಸಿ.
3. ಮಗುವಿನ ಸರ್ವಾಂಗೀಣ ವ್ಯಕ್ತಿತ್ವ ಅಭಿವೃದ್ಧಿಯಲ್ಲಿ ಕುಟುಂಬ ಮತ್ತು ಶಿಕ್ಷಣದ ಪಾತ್ರದ ಕುರಿತು ಒಂದು ಅಧ್ಯಯನ.
4. ಯಾವುದೇ ಐದು ಪ್ರಕಾರದ ವಿಶೇಷ ಅಗತ್ಯವುಳ್ಳ ಮಕ್ಕಳ ಸಮಸ್ಯೆಗಳು ಮತ್ತು ಅವರಿಗೆ ಒದಗಿಸಲಾದ ಸೌಲಭ್ಯಗಳ ಕುರಿತು ಮಾಹಿತಿಯನ್ನು ಸಂಗ್ರಹಿಸಿ.
5. ಮಹಿಳಾ ಸಬಲೀಕರಣಕ್ಕಾಗಿ ಶೈಕ್ಷಣಿಕ ಸ್ಥಾನಮಾನದ ಮೇಲೆ ಒಂದು ಸಮೀಕ್ಷೆ.
6. "21ನೇ ಶತಮಾನವು ಜಾಗತೀಕರಣದ ಯುಗ" ಅದರ ಸಾಧಕ-ಬಾಧಕಗಳನ್ನು ವಿವರಿಸುವುದು.
7. ವಿಶ್ವ ಆರೋಗ್ಯ ಸಂಸ್ಥೆ ಸೂಚಿಸಿದ ಜೀವನ ಕೌಶಲ್ಯಗಳು ಮಾನವನ ಜೀವನಮಟ್ಟವನ್ನು ಸುಧಾರಿಸಲು ಹೇಗೆ ಸಹಾಯ ಮಾಡಿವೆ? ವಿಷಧಿಪಡಿಸಿ.
8. "ಶಿಕ್ಷಣ ಸಂಸ್ಥೆಯ ಅತ್ಯುತ್ತಮ ನಿರ್ವಹಣೆ ಮತ್ತು ಗುಣಮಟ್ಟದ ಕಾರ್ಯಕ್ಷಮತೆಯು ಅದರ ಮುಖ್ಯಸ್ಥರ ಸಾಮರ್ಥ್ಯವನ್ನು ಅವಲಂಬಿಸಿರುತ್ತದೆ" ಎನ್ನುವದರ ಕುರಿತು ವರದಿ ತಯಾರಿಕೆ.
9. ಶಿಕ್ಷಣದಲ್ಲಿ ಗುಣಮಟ್ಟ ಮೌಲ್ಯಮಾಪನ ಮತ್ತು ನಿಯಂತ್ರಣದ ನಿಯೋಗಗಳ ಮಾಹಿತಿ ಮತ್ತು ಕಾರ್ಯಗಳನ್ನು ಸಂಗ್ರಹಿಸಿರಿ.
10. ಸಂವಹನ ಕೌಶಲ್ಯಗಳ ಮೇಲೆ ಒಂದು ಕಿರುನಾಟಕ (ಸ್ಕಿಟ್) ಪ್ರಾತ್ಯಕ್ಷಿಕೆ.
11. ಕಂಪ್ಯೂಟರ್‌ನ ವಿವಿಧ ಸಾಧನಗಳ ಕುರಿತು ಚಿತ್ರಗಳೊಂದಿಗೆ ಮಾಹಿತಿ ಸಂಗ್ರಹಿಸಿ.
12. ಒಂದುಪರೀಕ್ಷೆಯ ದತ್ತಾಂಶಗಳನ್ನು ಬಳಸಿಕೊಂಡು ಸರಾಸರಿ, ಮಧ್ಯಾಂಕ ಮತ್ತು ಬಹುಲಕವನ್ನು ಆಲೇಖಗಳ ಮೂಲಕ ಲೆಕ್ಕಿಸಿ.

For subjects having practical's

27. PHYSICS

	Subject : PHYSICS
Method of assessment	PRACTICAL EXAMINATION
Suggested topics	<p>LIST OF EXPERIMENTS</p> <p>PRESCRIBED BY DEPARTMENT OF PRE-UNIVERSITY EDUCATION, KARNATAKA</p> <ol style="list-style-type: none">1. To determine the resistivity of the material of a given wire (of known radius and length) by finding its resistance using Ohm's law.2. To determine resistance per unit length of a given wire by plotting a graph of potential difference versus current.3. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.4. To convert the given galvanometer (of known figure of merit and resistance) into an ammeter of desired range.5. To convert the given galvanometer (of known figure of merit and resistance) into a voltmeter of desired range.6. To find the frequency of the ac mains using a sonometer.7. To find the focal length of a concave mirror by finding the values of v for different values of u.8. To find the focal length of a convex mirror using a convex lens.9. To find the focal length of a convex lens by plotting a graph between u and v.10. To find the focal length of a concave lens using a convex lens.11. To determine the angle of minimum deviation for a given prism by plotting a graph between the angle of incidence and the angle of deviation.12. To determine the refractive index of a glass slab using a travelling microscope.13. To determine the refractive index of a liquid by using (i) concave mirror, (ii) convex lens and plane mirror.14. To draw the I-V characteristics curves of a p-n junction in forward bias and reverse bias. <p>Note: At least TWELVE (12) experiments have to be conducted in the practical classes.</p>
Weightage	30%

Tentative month	June to January
Objective and guidelines	<p>OBJECTIVES: i) To develop experimental, observational, manipulative and problem solving skills in learners. ii) To promote creative thinking in learners. iii) To develop conceptual competence in learners and make them to realize and appreciate different concepts of Physics</p> <p>GUIDELINES: i) At least 12 experiments must be conducted in the practical classes and they must be recorded in practical record. ii) The practical record should be completely handwritten with a cover page, laboratory certificate and particulars of the experiments performed. iii) All diagrams and graphs should be drawn neatly with appropriate headings, scale, index etc. iv) The submitted practical record will be assessed both by the internal and external examiners at the time of final practical examinations.</p>
Role of the teacher	During practical class a teacher must give instructions about the method of i) setting the apparatus, ii) taking readings, iii) tabulation of readings and iv) calculation. Teacher must make the students to understand the concepts behind the experiment being performed. Teacher must also make the students to learn the principle behind different instruments/devices being used in the experiment.
Scheme of evaluation Criteria for assessment and	<p>General instructions:</p> <ul style="list-style-type: none"> • Student has to perform any ONE (1) experiment selected by lottery from the list of 10 to 12 experiments set for practical examinations. • Duration of examination is 2 hrs and Maximum mark allotted is 30. Minimum TEN (10) different experiments have to be set in the practical Examination. <p>SCHEME OF EVALUATION</p>

weightage

A. Weightage of marks:

Sl. No.	Particulars	Marks
I	Performing the Experiment	20
II	Viva – Voice	04
III	Practical Record	06
TOTAL		30

B. Distribution of marks:

I. Performing the Experiment

Sl. No.	Particulars	Marks
1	Writing the principle of the experiment	2
2	Writing the formula and explaining the terms	2
3	Writing the diagram / figure / circuit with labeling (At least two parts)	2
4	Writing the tabular column/ observation pattern	2
5	Constructing the experimental set up/ circuit	3
6	Performing the experiment and entering the readings into the tabular column / Observation pattern	4
7	Substitution and calculation/plotting the graph and calculation	3
8	Result with unit	2
TOTAL		20

Note for Sl. No. 6:

1. At least three (3) trials have to be taken in case of finding mean value.

2. At least five (5) readings have to be taken in case of plotting the graph.

II. Viva- voice

1. Four questions must be asked and each question carries 1 mark.
2. The questions in the *viva- voce* should be simple, direct and related to the experiment to be performed by the student.

III. Practical Record

Sl. No.	Particulars	Marks
1	If the student has performed and recorded 12 experiments or more	6
2	If the student has performed and recorded 10 or 11 experiments.	5
3	If the student has performed and recorded 9 experiments.	4
4	If the student has performed and recorded below 9 and above 5 experiments.	3
5	If the student has performed and recorded 5 or less than 5 experiments.	0

28. CHEMISTRY

	Subject: CHEMISTRY
Method of assessment	PRACTICAL EXAMINATION
Suggested topics	LIST OF EXPERIMENTS <ol style="list-style-type: none">1. To determine the concentration / molarity of KMnO_4 solution by titrating it against 0.1 M standard solution of ferrous ammonium sulphate.2. To determine the concentration / molarity of potassium permanganate solution by titrating it against 0.1 M standard solution of oxalic acid.3. Systematic qualitative analysis of simple inorganic salt. (Minimum ten salts to analyse, considered as 10 experiments)4. Tests for functional groups in organic compounds.5. Effect of concentration on rate of reaction between sodium thiosulphate and hydrochloric acid.6. Effect of temperature on rate of reaction between sodium thiosulphate and hydrochloric acid.7. Determination of enthalpy of solution of KNO_3 or CuSO_4.8. Determination of enthalpy of neutralization of HCl and NaOH.9. Determination of enthalpy change on mixing chloroform and acetone.10. To study the variation in cell potential of the cell $\text{Zn} \text{Zn}^{2+} \text{Cu}^{2+} \text{Cu}$ with change in concentration of electrolytes ($\text{CuSO}_4 / \text{ZnSO}_4$) at room temperature.11. Separation of pigments present in leaves and flowers by paper chromatography and determination of R_f values of components.12. Separation of constituents of a mixture of inorganic components containing two cations Pb^{2+} and Cd^{2+} using chromatographic technique.13. Preparation of Ferrous ammonium sulphate crystals (Mohr's salt).14. Preparation of potash alum.

	<p>15. Preparation of dibenzal acetone (Dibenzylidene acetone).</p> <p>16. Preparation of p-nitroacetanilide from acetanilide.</p> <p>17. Preparation of phenyl azo β-naphthol (an azo dye).</p>
Weightage	30%
Tentative month	June to January
Objective and guidelines	<p>OBJECTIVES:</p> <p>Project work will help students to:</p> <ol style="list-style-type: none"> To develop experimental, observational, manipulative and problem solving skills in learners. To promote creative thinking in learners. To develop conceptual competence in learners and make them to realize and appreciate different concepts of Chemistry. Experiential learning occurs when carefully chosen experiences are supported by reflection, critical analysis and synthesis. Develop managerial skills of co-ordination, self-direction and time management. Develop skill to gather data from various sources, discover and investigate. Diverse viewpoints and arrive at logical decision. Develop skill to comprehend, analyse, interpret, evaluate experimental phenomenon, and understand the limitation of experimental background. Learn through constructivism-an activity based on observation and scientific study with experimental background. Inculcate a spirit of inquiry and research. <p>GUIDELINES:</p> <ol style="list-style-type: none"> All 17 experiments must be conducted in the practical classes and they must be recorded in practical record. It is compilation of whole work done by the student. The practical record should be completely handwritten with a cover page, laboratory certificate and particulars of the experiments performed. The submitted practical record will be assessed both by the internal and external examiners at the time of final practical examinations.

Steps involved in the conduct of the practical experiments, Students may work upon the following lines as suggested:

- i. Always come with preparation for the practicals to understand the experiment better.
- ii. Always listen to the faculty's instructions carefully and note down the important points and precautions to be followed.
- iii. After the instructions, collect the apparatus & thoroughly clean them. In order to get good results Cleaning of Glass Apparatus is compulsory.
- iv. Handle the chemicals, chemical balance and reagent bottles properly in the chemistry laboratory;
- v. Do the experiments assigned to you while using small quantities of the reagents without caring for the final result. Acquire an elementary idea of the experiment & observe the appearance/disappearance of colour, precipitate, turbidity etc. in reaction mixture.
- vi. All diagrams and graphs should be drawn neatly with appropriate headings, scale, index etc.
- vii. Record the observations in an observation note-book.
- viii. Keep your seat and apparatus Clean after the experiment.
- ix. Draw the relevant conclusion.
- x. Report any injury or accident or breakage of the apparatus to the teacher immediately.

The students are advised to observe the following precautions to avoid injury during laboratory work.

- i. Students working in the chemistry laboratory always use an apron and hand gloves.
- ii. Do not touch any chemical with bare hands because some of them may be corrosive.
- iii. Read the label on the bottle carefully before using any reagent.
- iv. Do not bring inflammable liquids such as alcohol, ether near the flame.
- v. Never add water to acid.
- vi. Be careful during heating the test tubes. The test tube mouth direction should not be pointed towards yourself or towards your neighbours.
- vii. Always make use of wire gauge to heat beakers or china dish. Do not heat this directly on flame.
- viii. Be careful in smelling chemicals or vapours.

Steps involved in the recording of the practical experiments in record book, Students may work upon the following lines as suggested:

- i. All 17 experiments which are conducted in the laboratory should be recorded in the practical notebook.

	<ul style="list-style-type: none"> ii. Practical record must be well maintained, protected from mechanical and chemical damage. iii. Complete the index, indicating the experiment, its serial number, page number and etc.. iv. The name of the experiment should be entered along with the date of carrying out that experiment. v. After the title is given, required apparatus, Theory and principle of the experiment with chemical equation followed by procedure & precautions to be taken and same should be mentioned. vi. Finally mention the general calculations for the experiment and note the conclusion. vii. Do not tear pages from notebook & Do not over write if a mistake has been committed in recording, put a line over it and write the correct word or figure. viii. Keep your notebook neat and tidy and covered with brown paper.
Role of the teacher	<ul style="list-style-type: none"> i. During practical class a teacher must give instructions about the aim of the experiment, theory or principle behind this experiment, method of Setting the apparatus, Taking readings or observations to be made, Tabulation of readings or recording the observation, Calculation and draw a conclusion. ii. Explain the meaning of qualitative analysis & quantitative analysis, physical & chemical properties behind the experiments. iii. Providing suitable reagents & apparatus to conduct experiments. iv. Teacher must make the students to understand the concepts behind the experiment being performed. Teacher must also make the students to learn the principle behind different instruments/devices being used in the experiment. v. Throughout the experiential learning process, Teacher must make the students to actively engage in posing questions, experimenting, being curious and solving problems, being creative and constructing meaning. vi. The instructor should experience success, failure, adventure, risk-taking and uncertainty of the students. vii. Teacher plays a primary role in setting suitable experimental conditions, posing problems, setting boundaries, supporting students, insuring physical and emotional safety, and facilitating the learning process. viii. Teacher must stimulate the Students to engage intellectually, emotionally, socially, soulfully and physically. This involvement produces a perception that the learning task is authentic.

Scheme of evaluation Criteria for assessment and weightage	General instructions: <ul style="list-style-type: none">• Duration of practical examination: 2 hours.• Maximum marks allotted: 30 marks.																	
	Two experiments should be perform. Each experiment carries ten marks.																	
	1. Salt analysis: - Qualitative analysis of an unknown salt consists of the detection and identification of the constituent ions. a. Analyse the given simple inorganic salt systematically and report one acid radical and one basic radical.																	
	2. Titration (Volumetric Analysis): - Volumetric analysis is quantitative analysis in which the results are expressed in a certain definite volume. a. Estimate the Molarity of KMnO ₄ solution using given standard (0.1M) FAS solution. (procedure of the titration should be given)																	
	SCHEME OF EVALUATION																	
	A. Weightage of marks:																	
	<table><tr><th>Sl. No.</th><th>Particulars</th><th>Marks</th></tr><tr><td>I</td><td>Performing the Experiment</td><td>20</td></tr><tr><td>II</td><td>Viva – Voce</td><td>04</td></tr><tr><td>III</td><td>Practical Record</td><td>06</td></tr><tr><td colspan="2">TOTAL</td><td>30</td></tr></table>			Sl. No.	Particulars	Marks	I	Performing the Experiment	20	II	Viva – Voce	04	III	Practical Record	06	TOTAL		30
	Sl. No.	Particulars	Marks															
	I	Performing the Experiment	20															
	II	Viva – Voce	04															
III	Practical Record	06																
TOTAL		30																
B. Distribution of marks:																		
I. Performing the Experiment																		
1. Salt analysis (10 Marks):																		
<table><tr><th>Sl. No.</th><th>Particulars</th><th>Marks</th></tr></table>			Sl. No.	Particulars	Marks													
Sl. No.	Particulars	Marks																

1	Preliminary tests (any two correct observations and inferences)	1
2	Detection of Acid radical	4
a.	Group detection (correct group identification	1
b.	Correct radical identification	1
c.	Confirmatory test	2
3	Detection of Basic radical	4
a.	Group detection (correct group identification	1
b.	Correct radical identification	1
c.	Confirmatory test	2
4	For writing systematic procedure with absence of previous groups	1
TOTAL		10

2. Titration (Volumetric Analysis): -

Sl. No.	Particulars	Marks
1	For performing the experiment	3 marks
2	For recording the readings in the tabular column	1 mark
3	For accuracy of the Titre value	3 marks
a.	up to ± 0.3 mL error	3 marks
b.	± 0.4 mL error	2 marks

c.	± 0.5 mL error	1 mark
d	$\leq \pm 0.6$ mL error & above	0 mark
3	Calculations of Molarity	3 marks
a.	Formula	1 mark
b.	Substitution	1 mark
c.	Answer with unit	1 mark

II. Viva- voce: For viva, the questions to be asked based on the following tests.

Functional group	Tests
Alcohol	Ceric ammonium nitrate test and Lucas test
Phenol	Neutral ferric chloride and phthalein fusion - test
Aldehydes and ketones	2,4 – DNP test and Tollen's reagent test
Carboxylic acid	Litmus test, sodium bicarbonate test and esterification test
Primary amine	Carbylamine test and azo dye test

- Four questions must be asked. Two each on any two functional groups and each question carries 1 mark.
- The questions in the *viva- voce* should be simple and direct related to the functional group tests.

	III. Practical Record: Submission of the duly completed and certified record		
	Sl. No.	Particulars	Marks
	1	If the student has performed and recorded 22 experiments.	6
	2	If the student has performed and recorded below 22 and above 18 experiments.	5
	3	If the student has performed and recorded below 18 and above 14 experiments.	4
	4	If the student has performed and recorded below 14 and above 10 experiments.	3
	5	If the student has performed and recorded less than 10 experiments.	2

+

29. BIOLOGY

	Subject: BIOLOGY
Method of assessment	PRACTICAL EXAMINATION
Suggested topics	LIST OF EXPERIMENTS <ol style="list-style-type: none"> 1. To study the reproductive parts of commonly available flowers 2. To calculate percentage of pollen germination. 3. To study pollen tube growth on stigma. 4. To study the discrete stages of gametogenesis in mammalian testis and ovary 5. To study and identify various stages of female gametophyte development in the ovary of a flower

	6. Preparation and study of mitosis in onion root tips 7. Study of stages of meiosis using permanent slides 8. To study the blastula stage of embryonic development in mammals, with the help of permanent slide, chart, model or photograph 9. To verify Mendel's Law of Segregation 10. To verify the Mendel's Law of Independent Assortment 11. Preparation and analysis of Autosomal dominant inheritance Pedigree Chart 12. Preparation and analysis of Autosomal recessive inheritance Pedigree Chart 13. Preparation and analysis of X - linked dominant inheritance Pedigree Chart 14. Preparation and analysis of X - linked recessive inheritance Pedigree Chart 15. Preparation and analysis of Y - linked inheritance Pedigree Chart 16. To perform emasculation, bagging and tagging for controlled pollination 17. Staining of nucleic acid by acetocarmine 18. To identify common disease-causing organisms and the symptoms of the diseases 19. To study plant population density by quadrant method 20. To study plant population frequency by quadrant method 21. Study of homologous and analogous organs in plants and animals 22. Investigatory Project Work
Weightage	30%
Tentative month	June to January

Objective and guidelines	<p>OBJECTIVES:</p> <ol style="list-style-type: none"> 1. To develop experimental, observational, manipulative and problem solving skills in learners. 2. To promote creative thinking in learners. 3. To develop conceptual competence in learners and make them to realize and appreciate different concepts of Biology <p>GUIDELINES:</p> <ol style="list-style-type: none"> 1. At least 16 experiments must be conducted in the practical classes and they must be recorded in practical record. 2. The practical record should be completely handwritten with a cover page, laboratory certificate and particulars of the experiments performed. 3. All diagrams and tabular columns should be drawn neatly with appropriate headings, scale, index etc. 4. The submitted practical record will be assessed both by the internal and external examiners at the time of final practical examinations.
Role of the teacher	<p>During practical class a teacher must give instructions about the method of</p> <ol style="list-style-type: none"> i) setting the apparatus, ii) meticulous observation and recordings iii) Observation of the specimens thoroughly and identifying the parts and comparison iv) Teacher must make the students to understand the concepts behind the experiment being performed. Teacher must also make the students to learn the principle behind different experiments being performed in the laboratory

Scheme of evaluation	General instructions: <ul style="list-style-type: none">• Duration of practical examination: 2 hours.• Maximum marks allotted: 30 marks.																					
Criteria for assessment and weightage	A. Weightage of marks: <table><tr><th>SL. NO.</th><th>SCHEME OF EVALUATION</th><th>MARKS ALLOTTED</th></tr><tr><td>1</td><td>Major experiment 1 and 2</td><td>10</td></tr><tr><td>2</td><td>Minor experiment</td><td>03</td></tr><tr><td>3</td><td>Spotters 3</td><td>07</td></tr><tr><td>4</td><td>Viva-voce</td><td>04</td></tr><tr><td>5</td><td>Practical Record</td><td>06</td></tr><tr><td></td><td>TOTAL</td><td>30</td></tr></table> B. Distribution of marks: <p>Conduction of the experiments 3 Marks each</p> <p>Interpreting the results 2 Marks each</p> <p>Spotters identification 1 Mark each</p> <p>Comment 2 Marks each</p> <p>II. Viva- voce</p> <ol style="list-style-type: none">1. Four questions must be asked and each question carries 1 mark.2. The questions in the <i>viva- voce</i> should be simple, direct and related to the experiment to be performed by the student. <p>III. Practical Record</p>	SL. NO.	SCHEME OF EVALUATION	MARKS ALLOTTED	1	Major experiment 1 and 2	10	2	Minor experiment	03	3	Spotters 3	07	4	Viva-voce	04	5	Practical Record	06		TOTAL	30
SL. NO.	SCHEME OF EVALUATION	MARKS ALLOTTED																				
1	Major experiment 1 and 2	10																				
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4	Viva-voce	04																				
5	Practical Record	06																				
	TOTAL	30																				

30.ELECTRONICS

	Subject: ELECTRONICS
Method of assessment	PRACTICAL EXAMINATION
Suggested topics	LIST OF EXPERIMENTS <ol style="list-style-type: none"> 1. Characteristics of Common Source FET amplifier 2. Realization of AND, OR ,NOT, and XOR gates using IC 7400 3. Realization of AND, OR ,NOT, and XnOR gates using IC 7402 4. Half Adder and Half Subtractor using IC7400 5. Clocked RS Flip Flop using IC 7400 6. Verification of truth table of JK Flip Flop using IC7476 and Conversion of JK Flip Flop into T Flip Flop. 7. OPAMP inverting and non inverting amplifier 8. OPAMP Adder and Subtractor for 2 DC inputs 9. First order LowPass Filter using OPAMP –to study frequency response and hence to find the cutoff Frequency 10. First order HighPass Filter using OPAMP –to study frequency response and hence to find the cutoff Frequency 11. Transistor CE amplifier- to study the frequency response and determine bandwidth. 12. Transistor CB amplifier- to study the frequency response and determine bandwidth 13. Colpitt's Oscillator Using BJT 14. WeinBridge Oscillator using OPAMP 15. Phase shift Oscillator using OPAMP 16. SCR characteristics for 2 values of I_g 17. Fullwave Rectifier using SCR- by RC triggering method 18. ALP for the addition of 2 bit numbers(Execution of given program) 19. ALP for the Multiplication of 2 bit numbers(Execution of given program) 20. C program to accept three integers and print the largest amongst them (Execution of given program)

	<p>21. C program to find sum and average of given 3 integer values. three integer values(Exection of given program)</p> <p>.</p> <p>Note: At least FORTEEN (14) experiments have to be conducted in the practical classes.</p>
Weightage	30%
Tentative month	June to January
Objective and guidelines	<p>OBJECTIVES: i) To develop experimental, observational, manipulative and problem solving skills in learners.</p> <p>ii) To promote creative thinking in learners.</p> <p>iii) To develop conceptual competence in learners and make them to realize and appreciate different concepts of Electronics</p> <p>GUIDELINES: i) At least 14 experiments must be conducted in the practical classes and they must be recorded in practical record.</p> <p>ii) The practical record should be completely handwritten with a cover page, laboratory certificate and particulars of the experiments performed.</p> <p>iii) All diagrams and graphs should be drawn neatly with appropriate headings, scale, index etc.</p> <p>iv) The submitted practical record will be assessed both by the internal and external examiners at the time of final practical examinations.</p>
Role of the teacher	<p>During practical class a teacher must give instructions about the method of i) setting the apparatus, ii) taking readings, iii) tabulation of readings and iv) calculation. V) loadingALP program to micro controller kit and execution of program vi) Loading and execting C program .Teacher must make the students to understand the concepts behind the experiment being performed. Teacher must also</p>

	make the students to learn the principle behind different instruments/devices being used in the experiment.																																	
Scheme of evaluation	General instructions: <ul style="list-style-type: none">• Duration of practical examination: 2 hours.• Maximum marks allotted: 30 marks.																																	
Criteria for assessment and weightage	<p>Minimum TEN (10) different experiments have to be set in the practical Examination.</p> <p>SCHEME OF EVALUATION</p> <p>A. Weightage of marks:</p> <table><tr><th>Sl. No.</th><th>Particulars</th><th>Marks</th></tr><tr><td>I</td><td>Performing the Experiment</td><td>20</td></tr><tr><td>II</td><td>Viva – Voce</td><td>04</td></tr><tr><td>III</td><td>Practical Record</td><td>06</td></tr><tr><td colspan="2">TOTAL</td><td>30</td></tr></table> <p>B. Distribution of marks:</p> <p>I. Performing the Experiment(Analog experiments)</p> <table><tr><td></td><td></td><td></td></tr><tr><th>Sl. No.</th><th>Particulars</th><th>Marks</th></tr><tr><td>1</td><td>Writing the circuit diagram with component values</td><td>3</td></tr><tr><td>2</td><td>Circuit construction</td><td>3</td></tr><tr><td>3</td><td>Writing the tabular column</td><td>2</td></tr><tr><td>4</td><td>Performing the experiment and entering the readings into the tabular column / Observation pattern</td><td>6</td></tr></table>	Sl. No.	Particulars	Marks	I	Performing the Experiment	20	II	Viva – Voce	04	III	Practical Record	06	TOTAL		30				Sl. No.	Particulars	Marks	1	Writing the circuit diagram with component values	3	2	Circuit construction	3	3	Writing the tabular column	2	4	Performing the experiment and entering the readings into the tabular column / Observation pattern	6
Sl. No.	Particulars	Marks																																
I	Performing the Experiment	20																																
II	Viva – Voce	04																																
III	Practical Record	06																																
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Sl. No.	Particulars	Marks																																
1	Writing the circuit diagram with component values	3																																
2	Circuit construction	3																																
3	Writing the tabular column	2																																
4	Performing the experiment and entering the readings into the tabular column / Observation pattern	6																																

5	Substitution and calculation/plotting the graph and calculation	4
6	Result with unit	2
TOTAL		20

Note for Sl. No. 6:

3. At least three (3) trials have to be taken in case of finding mean value.
4. At least five (5) readings have to be taken in case of plotting the graph.

I. Performing the Experiment(Digital Electronics Experiments)

Sl. No.	Particulars	Marks
1	Pin Diagrams	2
2	Circuit construction	6
3	Writing the truth table	5
4	Verification of truth table	5
6	Result	2
TOTAL		20

I. Performing the Experiment(Microcontroller and C programming)

Sl. No.	Particulars	Marks
1	Writing the correct program	12
2	Loading and Execution	6

6	Result	2
TOTAL		20

Subject:	ಎಲೆಕ್ಟ್ರಾನಿಕ್ಸ್
Method of assessment	೦. ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆ
Suggested topics	ಶಾಲಾಶಿಕ್ಷಣ ಇಲಾಖೆ (ಪದವಿಪೂರ್ವ) ನಿಗದಿಪಡಿಸಿರುವ 14 ಪ್ರಯೋಗಗಳು.
Weightage	30%
Tentative month	ಜೂನ್ ಇಂದ ಜನವರಿ ವರೆಗೆ
Objective and guidelines	<p>ಉದ್ದೇಶಗಳು : i) ಕಲಿಕಾರ್ಥಿಗಳಲ್ಲಿ ಪ್ರಯೋಗಾತ್ಮಕ, ವೀಕ್ಷಣಾ, ಯುಕ್ತಪೂರ್ಣ ಮತ್ತು ಸಮಸ್ಯೆ ಪರಿಹರಿಸುವ ಸಾಮರ್ಥ್ಯಗಳನ್ನು ಹೆಚ್ಚಿಸುವುದು.</p> <p>ii) ಕಲಿಕಾರ್ಥಿಗಳಲ್ಲಿ ಸೃಜನಶೀಲ ಚಿಂತನೆಯನ್ನು ಬೆಳೆಸುವುದು.</p> <p>iii) ಕಲಿಕಾರ್ಥಿಗಳಲ್ಲಿ ಪರಿಕಲ್ಪನಾ ಸಾಮರ್ಥ್ಯವನ್ನು ವೃದ್ಧಿಸಿ, ಅವರು ಭೌತಶಾಸ್ತ್ರದ ವಿವಿಧ ಪರಿಕಲ್ಪನೆಗಳನ್ನು ಅರ್ಥಮಾಡಿಕೊಂಡು ಆನಂದಿಸುವಂತೆ ಮಾಡುವುದು.</p> <p>ಮಾರ್ಗಸೂಚಿಗಳು: i) ಕಡೆಯ ಪಕ್ಷ 14 ಪ್ರಯೋಗಗಳನ್ನು ಪ್ರಾಯೋಗಿಕ ತರಗತಿಗಳಲ್ಲಿ ನಿರ್ವಹಿಸುವುದು ಮತ್ತು ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್‌ನಲ್ಲಿ ನಮೂದಿಸುವುದು.</p> <p>ii) ಮುಖಪುಟ, ಪ್ರಯೋಗ ಪ್ರಮಾಣ ಪತ್ರ ಮತ್ತು ಪ್ರಯೋಗಗಳ ವಿವರ ಹೊಂದಿರುವ ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್‌ಗಳು ಸಂಪೂರ್ಣ ಕೈಬರಹದಲ್ಲಿ ಇರಬೇಕು.</p> <p>iii) ಸರಿಯಾದ ಮೇಲ್ಪರಹ ಇರುವ ಚಿತ್ರಗಳು ಮತ್ತು ಸರಿಯಾದ ಪರಮಾಣುಗಳೊಂದಿಗೆ ನಕ್ಷೆಗಳನ್ನು ಅಂದವಾಗಿ ಬಿಡಿಸಿರಬೇಕು.</p>

		iv) ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಯಲ್ಲಿ ಸಲ್ಲಿಸುವ ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್‌ಗಳನ್ನು ಆಂತರಿಕ ಮತ್ತು ಬಾಹ್ಯ ಪರೀಕ್ಷಕರು ಒಟ್ಟಿಗೆ ಸೇರಿ ಮೌಲ್ಯಮಾಪನ ಮಾಡಬೇಕು.															
	Role of the teacher	ಪ್ರಾಯೋಗಿಕ ತರಗತಿಯಲ್ಲಿ ಉಪನ್ಯಾಸಕರು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ 1) ಪರಿಕರಗಳನ್ನು ಜೋಡಿಸುವ, 2) ಪರಿಕರಗಳಲ್ಲಿ ತೋರಿಸುವ ವಿವರಗಳನ್ನು ಓದುವುದು , 3) ವಿವರಗಳನ್ನು ನಮೂದಿಸುವುದು ಮತ್ತು 4) ಲೆಕ್ಕಚಾರ ಮಾಡುವ ವಿಧಾನಗಳನ್ನು ತಿಳಿಸಬೇಕು. 5) ಗಣಕಯಂತ್ರ ಅಥವಾ ಮೈಕ್ರೋ ಕಂಪ್ಯೂಟರ್ ಕಿಟ್‌ಗೆ ಪ್ರೋಗ್ರಾಂ ಅನ್ನು ಸೇರಿಸಿ ಕಾರ್ಯಗತಗೊಳಿಸುವುದು. ನಿರ್ವಹಿಸುತ್ತಿರುವ ಪ್ರಯೋಗದ ಹಿಂದಿರುವ ಎಲ್ಲಾ ಪರಿಕಲ್ಪನೆಗಳನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವಂತೆ ಮಾಡಬೇಕು. ವಿದ್ಯಾರ್ಥಿಗಳು ತಾವು ಉಪಯೋಗಿಸುತ್ತಿರುವ ಪರಿಕರಗಳಲ್ಲಿ ಒಳಗೊಂಡಿರುವ ನಿಯಮಗಳನ್ನು ಅರಿಯುವಂತೆ ಮಾಡಬೇಕು.															
	Scheme of evaluation	<p>ಸಾಮಾನ್ಯ ಸೂಚನೆಗಳು</p> <ul style="list-style-type: none"> ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಗೆ ನಿಗದಿ ಪಡಿಸಿರುವ 10 ರಿಂದ 12 ಪ್ರಯೋಗಗಳಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿಯು ಲಾಟರಿ ಮೂಲಕ ಪಡೆದ 1 ಪ್ರಯೋಗವನ್ನು ಮಾಡಬೇಕು. ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಗೆ ನಿಗದಿ ಪಡಿಸಿರುವ ಸಮಯ 2 ಗಂಟೆ ಮತ್ತು ನಿಗದಿ ಪಡಿಸಿರುವ ಗರಿಷ್ಠ ಅಂಕ 30. <p>ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಗೆ ಕಡಿಮೆ ಎಂದರೆ 10 ವಿವಿಧ ಪ್ರಯೋಗಗಳನ್ನಾದರೂ ನಿಗದಿಪಡಿಸಬೇಕು</p> <p>ಮೌಲ್ಯಮಾಪನದ ಯೋಜನೆ</p> <p>A. ಅಂಕ ನಿಗದಿಯ ಮಾನದಂಡ</p> <table border="1"> <thead> <tr> <th>ಕ್ರ.ಸಂ</th><th>ವಿವರಗಳು</th><th>ಅಂಕಗಳು</th></tr> </thead> <tbody> <tr> <td>I</td><td>ಪ್ರಯೋಗವನ್ನು ನಡೆಸಲು</td><td>20</td></tr> <tr> <td>II</td><td>ಮೌಖಿಕ ಪರೀಕ್ಷೆ</td><td>04</td></tr> <tr> <td>III</td><td>ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್</td><td>06</td></tr> <tr> <td>TOTAL</td><td></td><td>30</td></tr> </tbody> </table> <p>B. ಅಂಕಗಳ ವಿತರಣೆ</p> <p>1. ಪ್ರಯೋಗವನ್ನು ನಡೆಸುವುದು (ಅನಲಾಗ್ ಪ್ರಯೋಗಗಳು)</p>	ಕ್ರ.ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು	I	ಪ್ರಯೋಗವನ್ನು ನಡೆಸಲು	20	II	ಮೌಖಿಕ ಪರೀಕ್ಷೆ	04	III	ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್	06	TOTAL		30
ಕ್ರ.ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು															
I	ಪ್ರಯೋಗವನ್ನು ನಡೆಸಲು	20															
II	ಮೌಖಿಕ ಪರೀಕ್ಷೆ	04															
III	ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್	06															
TOTAL		30															
	Criteria for assessment and weightage																

ಕ್ರ ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು
1	ವಿದ್ಯುತ್ ಮಂಡಲ ಬರೆದು ಭಾಗಗಳನ್ನು ಹೆಸರಿಸಲು	3
2	ಪ್ರಾಯೋಗಕ್ಕೆ ಉಪಕರಣ ಜೋಡಿಸಿಕೊಳ್ಳುವುದು / ವಿದ್ಯುತ್ ಮಂಡಲ ರಚಿಸುವುದು	3
3	ಕೋಷ್ಟಕ ಪಟ್ಟಿ / ವೀಕ್ಷಣಾ ಮಾದರಿ ಬರೆಯಲು	2
4	ಪ್ರಯೋಗ ನಿರ್ವಹಿಸುವುದು ಮತ್ತು ರೀಡಿಂಗ್ ಗಳನ್ನು ಕೋಷ್ಟಕ ಪಟ್ಟಿಯಲ್ಲಿ / ವೀಕ್ಷಣ ಪರ್ಯಾಯ ನಲ್ಲಿ ಬರೆಯುವುದು	6
5	ಸೂತ್ರದ ನೆರವಿನಿಂದ ಲೆಕ್ಕಚಾರ ಮಾಡುವುದಕ್ಕೆ / ಗ್ರಾಫ್ ಎಳೆದು ಲೆಕ್ಕಚಾರ ಮಾಡುವುದಕ್ಕೆ.	4
6	ಫಲಿತಾಂಶವನ್ನು ಯುನಿಟ್ ಸಮೇತ	2
TOTAL		20
<p>Sl. ಗಾಗಿ ಟಿಪ್ಪಣಿ ಸಂಖ್ಯೆ 4:</p> <p>5. ಸರಾಸರಿ ಮೌಲ್ಯವನ್ನು ಕಂಡುಹಿಡಿಯುವ ಸಂದರ್ಭದಲ್ಲಿ ಕನಿಷ್ಠ ಮೂರು(3) ಪ್ರಯೋಗಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳಬೇಕು.</p> <p>6. ಗ್ರಾಫ್ ಅನ್ನು ರೂಪಿಸುವ ಸಂದರ್ಭದಲ್ಲಿ ಕನಿಷ್ಠ ಐದು (5) ರೇಟಿಂಗ್‌ಗಳನ್ನು ತೆಗೆದುಕೊಳ್ಳಬೇಕು.</p>		
2. ಪ್ರಯೋಗವನ್ನು ನಡೆಸುವುದು (ಡಿಜಿಟಲ್ ಎಲೆಕ್ಟ್ರಾನಿಕ್ ಪ್ರಯೋಗಗಳು)		
ಕ್ರ ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು
1	ಪಿನ್ ರೇಖಾಚಿತ್ರ ಬರೆಯುವುದು	2
2	ವಿದ್ಯುತ್ ಮಂಡಲ ರಚನೆ	6
3	ಸತ್ಯ ಸಂದತೆ ಕೋಷ್ಟಕ	5
4	ಸತ್ಯ ಸಂದತೆ ಕೋಷ್ಟಕದ ಪ್ರಾಯೋಗಿಕ ಪರಿಶೀಲನೆ	5
5	ಫಲಿತಾಂಶ	2
TOTAL		20

3. ಪ್ರಯೋಗವನ್ನು ನಡೆಸುವುದು (ಮೈಕ್ರೋ ಕಂಟ್ರೋಲರ್ ಮತ್ತು 'C' ಪ್ರೋಗ್ರಾಂ ಪ್ರಯೋಗಗಳು)

ಕ್ರ ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು
1	ಸರಿಯಾದ ಪ್ರೋಗ್ರಾಂನ್ನು ಬರೆಯುವುದು	12
2	ಪ್ರೋಗ್ರಾಂ ಅನ್ನು ಸೇರಿಸಿ ಕಾರ್ಯಗತಗೊಳಿಸುವುದು	6
3	ಫಲಿತಾಂಶ	2
TOTAL		20

II ಮೌಖಿಕ ಪರೀಕ್ಷೆ

1. ನಾಲ್ಕು ಪ್ರಶ್ನೆಗಳನ್ನು ಕೇಳಬೇಕು ಮತ್ತು ಪ್ರತಿ ಪ್ರಶ್ನೆಗೆ 1 ಅಂಕ ಇರುತ್ತದೆ.
2. ವೈವಾಚಿಕವಾಗಿರುವ ಪ್ರಶ್ನೆಗಳು ಸರಳವಾಗಿರಬೇಕು, ನೇರವಾಗಿರಬೇಕು ಮತ್ತು ವಿದ್ಯಾರ್ಥಿಯು ನಿರ್ವಹಿಸಬೇಕಾದ ಪ್ರಯೋಗಕ್ಕೆ ಸಂಬಂಧಿಸಿರಬೇಕು.

III. ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್

Sl. No.	Particulars	Marks
1	ವಿದ್ಯಾರ್ಥಿಯು 14 ಅಥವಾ ಹೆಚ್ಚಿನ ಪ್ರಯೋಗಗಳನ್ನು ನಿರ್ವಹಿಸಿದ್ದರೆ ಮತ್ತು ರೆಕಾರ್ಡ್ ಮಾಡಿದ್ದರೆ.	6
2	ವಿದ್ಯಾರ್ಥಿಯು 12 ಅಥವಾ 13 ಪ್ರಯೋಗಗಳನ್ನು ಪ್ರದರ್ಶಿಸಿ ರೆಕಾರ್ಡ್ ಮಾಡಿದ್ದರೆ.	5
3	ವಿದ್ಯಾರ್ಥಿಯು 11 ಪ್ರಯೋಗಗಳನ್ನು ಪ್ರದರ್ಶಿಸಿ ರೆಕಾರ್ಡ್ ಮಾಡಿದ್ದರೆ.	4
4	ವಿದ್ಯಾರ್ಥಿಯು 10 ಕ್ಕಿಂತ ಕಡಿಮೆ ಪ್ರಯೋಗಗಳು ಮತ್ತು 5 ಕ್ಕಿಂತ ಹೆಚ್ಚು ಪ್ರದರ್ಶನ ನೀಡಿ ರೆಕಾರ್ಡ್ ಮಾಡಿದ್ದರೆ	3
5	ವಿದ್ಯಾರ್ಥಿಯು 5 ಅಥವಾ 5 ಕ್ಕಿಂತ ಕಡಿಮೆ ಪ್ರಯೋಗಗಳನ್ನು ಪ್ರದರ್ಶಿಸಿ ರೆಕಾರ್ಡ್ ಮಾಡಿದ್ದರೆ	0

II. Viva- voce

1. Four questions must be asked and each question carries 1 mark.
2. The questions in the *viva- voce* should be simple, direct and related to the experiment to be performed by the student.

III. Practical Record

Sl. No.	Particulars	Marks
1	If the student has performed and recorded 14 experiments or more	6
2	If the student has performed and recorded 12 or 13 experiments.	5
3	If the student has performed and recorded 11 experiments.	4
4	If the student has performed and recorded below 10 and above 5 experiments.	3
5	If the student has performed and recorded 5 or less than 5 experiments.	0

31.COMPUTER SCIENCE

	Subject: COMPUTER SCIENCE
Method of assessment	PRACTICAL EXAMINATION
Suggested topics	LIST OF EXPERIMENTS PART - A <ol style="list-style-type: none">1. Write a program to find the frequency of presence an element in an array.2. Write a program to insert an element into an array at a given position.3. Write a program to delete an element from an array from a given position.4. Write a program to sort the elements of an arrayin ascending order using insertion sort.5. Write a program to search for a given element in an array using binary search method.6. Write a program to create a class with data members principle, time and rate. Create member functions to accept data values to compute simple interest and display the result.7. Write a program to create a class with data members a, b, c and member functions to input data, compute descriminant based on the following conditions and print the roots.<ul style="list-style-type: none">• If desciminant=0, print the roots that are equal.• If the desciminant> 0, print the real roots.• Desciminant< 0, print the roots are imaginary.8. Write a program to find area of squre/rectangle/triangle using function overloading.9. Write a program to find the cube of a numberusing inline function.10. Write a program to find sum of the series $1+x+x^2+ - - - +x^n$ using constructors.11. Write a program to create a class containing data members roll number and name, also create a member function to read and display the data using the cocept of single level inheritance. Create a derived class that contains marks of two subjects and total marks as the data members.12. Create a class containing the follwing data members register number and name and fee. Also create a member function to read and display the data.

	<p>13. Write a program to perform push item in to the stack.</p> <p>14. Write a program to pop elements from the stack.</p> <p>15. Write a program to perform enqueue and dequeue.</p> <p>16. Write a program to create linked list and appending nodes.</p> <p>PART – B (SQL)</p> <p>1. Generate the electricity bill for one consumer.</p> <p>2. Create a student database and compute the result.</p> <p>3. Generate the employee details and compute the salary based on the department.</p> <p>4. Create database for the bank transaction.</p> <p>PART – C (HTML)</p> <p>1. Write a HTML program to create a study time table.</p> <p>2. Create HTML program with table and form.</p> <p>Note: At least TWELVE (12) experiments have to be conducted from PART A, two from PART B and two from PART C in the practical classes.</p>
Weightage	30%
Tentative month	June to January
Objective and guidelines	<p>OBJECTIVES: i) To develop problem solving skills in learners.</p> <p>ii) To promote creative thinking in learners.</p> <p>iii) To develop programming skills in learners</p> <p>GUIDELINES: i) At least TWELVE (12) experiments have to be conducted from PART A, two from PART B and two from PART C in the practical classes and they must be recorded in practical record.</p> <p>ii) The practical record should be completely handwritten with a cover page, laboratory certificate and particulars of the experiments performed.</p>

	iii) All the inputs and outputs of each experiment should be written neatly. iv) The submitted practical record will be assessed both by the internal and external examiners at the time of final practical examinations.																							
Role of the teacher	During practical class a teacher must give instructions about the execution of each program and possible ways of debugging errors to generate proper result. Teacher must make the students to understand the concepts behind the experiment being performed.																							
Scheme of evaluation	General instructions: <ul style="list-style-type: none">Duration of practical examination: 2 hours.Maximum marks allotted: 30 marks. Minimum Twelve(12) from PART A, Four (4) from PART B and Two(2) from PART C different experiments have to be set in the practical Examination. SCHEME OF EVALUATION A. Weightage of marks: <table><tr><th>Sl. No.</th><th>Particulars</th><th>Marks</th></tr><tr><td>I</td><td>Performing the Experiment</td><td>20</td></tr><tr><td>II</td><td>Viva – Voice</td><td>04</td></tr><tr><td>III</td><td>Practical Record</td><td>06</td></tr><tr><td colspan="2">TOTAL</td><td>30</td></tr></table> B. Distribution of marks: I. Performing the Experiment <table><tr><td></td><td></td><td></td></tr><tr><th>Sl. No.</th><th>Particulars</th><th>Marks</th></tr></table>			Sl. No.	Particulars	Marks	I	Performing the Experiment	20	II	Viva – Voice	04	III	Practical Record	06	TOTAL		30				Sl. No.	Particulars	Marks
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I	Performing the Experiment	20																						
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III	Practical Record	06																						
TOTAL		30																						
Sl. No.	Particulars	Marks																						
Criteria for assessment and weightage																								

1	Writing one program from PART A	6
2	Writing one program from PART B or PART C	6
3	Execution of one program of examiners choice and generating proper result	8
TOTAL		20

II. Viva- voce

- Four questions must be asked and each question carries 1 mark.
- The questions in the *viva- voce* should be simple, direct and related to the experiment to be performed by the student.

III. Practical Record

Sl. No.	Particulars	Marks
1	If the student has performed and recorded 12 experiments or more	6
2	If the student has performed and recorded 10 or 11 experiments.	5
3	If the student has performed and recorded 9 experiments.	4
4	If the student has performed and recorded below 9 and above 5 experiments.	3
5	If the student has performed and recorded 5 or less than 5 experiments.	0

Subject:	ಗಣಕವಿಜ್ಞಾನ
Method of assessment	ಃ. ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆ
Suggested topics	ಶಾಲಾ ಶಿಕ್ಷಣ ಇಲಾಖೆ ನಿಗದಿ ಪಡಿಸಿರುವ 16 ಭಾಗ-A, 4 ಭಾಗ-B ಮತ್ತು 2 ಭಾಗ-C ಪ್ರಯೋಗಗಳು.
Weightage	30%
Tentative month	ಜೂನ್ ಇಂದ ಜನವರಿ ವರೆಗೆ
Objective and guidelines	<p>ಉದ್ದೇಶಗಳು : i) ಕಲಿಕಾರ್ಥಿಗಳಲ್ಲಿ ಪ್ರಯೋಗಾತ್ಮಕ, ವೀಕ್ಷಣಾ, ಯುಕ್ತಪೂರ್ಣ ಮತ್ತು ಸಮಸ್ಯೆ ಪರಿಹರಿಸುವ ಸಾಮರ್ಥ್ಯಗಳನ್ನು ಹೆಚ್ಚಿಸುವುದು.</p> <p>ii) ಕಲಿಕಾರ್ಥಿಗಳಲ್ಲಿ ಸೃಜನಶೀಲ ಚಿಂತನೆಯನ್ನು ಬೆಳೆಸುವುದು.</p> <p>iii) ಕಲಿಕಾರ್ಥಿಗಳಲ್ಲಿ ಕಂಪ್ಯೂಟರ್ ಕಾರ್ಯಕ್ರಮಗಳನ್ನು (ಪ್ರೋಗ್ರಾಮಿಂಗ್) ಕಲಿಯುವ ಸಾಮರ್ಥ್ಯವನ್ನು ವೃದ್ಧಿಸುವುದು,</p> <p>ಮಾರ್ಗಸೂಚಿಗಳು: i) ಕಡೆಯ ಪಕ್ಷ 12 ಪ್ರಯೋಗಗಳನ್ನು ಭಾಗ-A, 2 ಪ್ರಯೋಗಗಳು ಭಾಗ-B ಯಿಂದ 2 ಪ್ರಯೋಗಗಳು ಭಾಗ-C ಯಿಂದ ಪ್ರಾಯೋಗಿಕ ತರಗತಿಗಳಲ್ಲಿ ನಿರ್ವಹಿಸುವುದು ಮತ್ತು ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್‌ನಲ್ಲಿ ನಮೂದಿಸುವುದು.</p> <p>ii) ಮುಖಪುಟ, ಪ್ರಯೋಗ ಪ್ರಮಾಣ ಪತ್ರ ಮತ್ತು ಪ್ರಯೋಗಗಳ ವಿವರ ಹೊಂದಿರುವ ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್‌ಗಳು ಸಂಪೂರ್ಣ ಕೈಬರಹದಲ್ಲಿ ಇರಬೇಕು.</p> <p>iii) ಎಲ್ಲಾ ಪ್ರಯೋಗಗಳಲ್ಲಿ ಇನ್‌ಪುಟ್ ನಿಯತಾಂಕಗಳನ್ನು ಮತ್ತು ಔಟ್‌ಪುಟ್ ನಿಯತಾಂಕಗಳನ್ನು ರೆಕಾರ್ಡ್ ಬುಕ್‌ನಲ್ಲಿ ಬರೆಯುವುದು.</p> <p>iv) ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಯಲ್ಲಿ ಸಲ್ಲಿಸುವ ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್‌ಗಳನ್ನು ಆಂತರಿಕ ಮತ್ತು ಬಾಹ್ಯ ಪರೀಕ್ಷಕರು ಒಟ್ಟಿಗೆ ಸೇರಿ ಮೌಲ್ಯಮಾಪನ ಮಾಡಬೇಕು.</p>
Role of the teacher	ಪ್ರಾಯೋಗಿಕ ತರಗತಿಯಲ್ಲಿ ಉಪನ್ಯಾಸಕರು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ i) ಪ್ರೋಗ್ರಾಮ್‌ಗಳನ್ನು ಬರೆಯುವ ಮತ್ತು ತಪ್ಪುಗಳನ್ನು ಸರಿಪಡಿಸುವ ವಿಧಾನಗಳನ್ನು ತಿಳಿಸುವುದು, ii) ಪ್ರಯೋಗದ ಉಪಯೋಗಗಳ ಬಗ್ಗೆ ವಿವರಿಸುವುದು, ನಿರ್ವಹಿಸುತ್ತಿರುವ ಪ್ರಯೋಗದ ಹಿಂದಿರುವ ಎಲ್ಲಾ ಪರಿಕಲ್ಪನೆಗಳನ್ನು ವಿದ್ಯಾರ್ಥಿಗಳು ಅರ್ಥಮಾಡಿಕೊಳ್ಳುವಂತೆ ಮಾಡಬೇಕು.

<p>Scheme of evaluation</p>	<p><u>ಸಾಮಾನ್ಯ ಸೂಚನೆಗಳು</u></p> <ul style="list-style-type: none">ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಗೆ ನಿಗದಿ ಪಡಿಸಿರುವ ಭಾಗ-ಎ ನಲ್ಲಿ 12 ಪ್ರಯೋಗಗಳಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿಯು ಲಾಟರಿ ಮೂಲಕ ಪಡೆದ 1 ಪ್ರಯೋಗವನ್ನು ಬರೆಯಬೇಕು.ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಗೆ ನಿಗದಿ ಪಡಿಸಿರುವ ಭಾಗ-ಬಿ 2 ಪ್ರಯೋಗಗಳು ಮತ್ತು ಭಾಗ-ಸಿ ನಲ್ಲಿ 2 ಪ್ರಯೋಗಗಳಲ್ಲಿ ವಿದ್ಯಾರ್ಥಿಯು ಲಾಟರಿ ಮೂಲಕ ಪಡೆದ 1 ಪ್ರಯೋಗವನ್ನು ಬರೆಯಬೇಕು.ಲಾಟರಿಯಿಂದ ಪಡೆದ 2 ಪ್ರಯೋಗಗಳಲ್ಲಿ ಪರೀಕ್ಷಕರು ನಿಗದಿ ಪಡಿಸಿದ 1 ಪ್ರಯೋಗವನ್ನು ಗಣಕಯಂತ್ರದಲ್ಲಿ ಕೀಲಿಕರಿಸಿ, ಸರಿಯಾದ ಉತ್ತರವನ್ನು ಪರೀಕ್ಷಕರಿಗೆ ತೋರಿಸಿ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಬರೆಯುವುದು.ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಗೆ ನಿಗದಿಪಡಿಸಿರುವ ಸಮಯ 2 ಗಂಟೆ.ಮತ್ತು ನಿಗದಿಪಡಿಸಿರುವ ಗರಿಷ್ಠ ಅಂಕ 30.															
<p>Criteria for assessment and weightage</p>	<p>ಮೌಲ್ಯಮಾಪನದ ಯೋಜನೆ</p> <p>A. ಅಂಕ ನಿಗದಿಯ ಮಾನದಂಡ</p> <table><tr><th>ಕ್ರ ಸಂ</th><th>ವಿವರಗಳು</th><th>ಅಂಕಗಳು</th></tr><tr><td>I</td><td>ಪ್ರಯೋಗವನ್ನು ನಡೆಸಲು</td><td>20</td></tr><tr><td>II</td><td>ಮೌಖಿಕ ಪರೀಕ್ಷೆ</td><td>04</td></tr><tr><td>III</td><td>ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್</td><td>06</td></tr><tr><td>ಒಟ್ಟು</td><td></td><td>30</td></tr></table>	ಕ್ರ ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು	I	ಪ್ರಯೋಗವನ್ನು ನಡೆಸಲು	20	II	ಮೌಖಿಕ ಪರೀಕ್ಷೆ	04	III	ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್	06	ಒಟ್ಟು		30
ಕ್ರ ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು														
I	ಪ್ರಯೋಗವನ್ನು ನಡೆಸಲು	20														
II	ಮೌಖಿಕ ಪರೀಕ್ಷೆ	04														
III	ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್	06														
ಒಟ್ಟು		30														
	<p>B. ಅಂಕಗಳ ವಿತರಣೆ</p>															

I. ಪ್ರಯೋಗವನ್ನು ನಡೆಸುವುದು

ಕ್ರ.ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು
1	ಭಾಗ-ಎ ಯಿಂದ 1 ಪ್ರೋಗ್ರಾಮ್ ಅನ್ನು ಬರೆಯುವುದಕ್ಕೆ	6
2	ಭಾಗ-ಬಿ ಅಥವಾ ಭಾಗ-ಸಿ ಯಿಂದ 1 ಪ್ರೋಗ್ರಾಮ್ ಅನ್ನು ಬರೆಯುವುದಕ್ಕೆ	6
3	ಲಾಟರಿಯಿಂದ ಪಡೆದ 2 ಪ್ರಯೋಗಗಳಲ್ಲಿ ಪರೀಕ್ಷಕರು ನಿಗದಿ ಪಡಿಸಿದ 1 ಪ್ರಯೋಗವನ್ನು ಗಣಕಯಂತ್ರದಲ್ಲಿ ಕೀಲಿಕರಿಸಿ, ಸರಿಯಾದ ಉತ್ತರವನ್ನು ತರಿಸಿ ಪರೀಕ್ಷಕರಿಗೆ ತೋರಿಸಿ ಉತ್ತರ ಪತ್ರಿಕೆಯಲ್ಲಿ ಬರೆಯುವುದಕ್ಕೆ.	8
ಒಟ್ಟು		20

II. ಮೌಖಿಕ ಪರೀಕ್ಷೆ

1. ನಾಲ್ಕು ಪ್ರಶ್ನೆಗಳನ್ನು ಕೇಳಬೇಕು ಮತ್ತು ಪ್ರತಿ ಸರಿ ಉತ್ತರಕ್ಕೆ 1 ಅಂಕ ಇರುತ್ತದೆ.
2. ವೈವಾಪೋಸ್‌ನಲ್ಲಿನ ಪ್ರಶ್ನೆಗಳು ಸರಳವಾಗಿರಬೇಕು, ನೇರವಾಗಿರಬೇಕು ಮತ್ತು ವಿದ್ಯಾರ್ಥಿಯು ನಿರ್ವಹಿಸಬೇಕಾದ ಪ್ರಯೋಗಕ್ಕೆ ಸಂಬಂಧಿಸಿರಬೇಕು.

III. ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್

ಕ್ರ.ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು
1	ವಿದ್ಯಾರ್ಥಿಯು 12 ಅಥವಾ ಹೆಚ್ಚಿನ ಪ್ರಯೋಗಗಳನ್ನು ನಿರ್ವಹಿಸಿದ್ದರೆ ಮತ್ತು ರೆಕಾರ್ಡ್ ಮಾಡಿದ್ದರೆ.	6
2	ವಿದ್ಯಾರ್ಥಿಯು 10 ಅಥವಾ 11 ಪ್ರಯೋಗಗಳನ್ನು ಪ್ರದರ್ಶಿಸಿ ರೆಕಾರ್ಡ್ ಮಾಡಿದ್ದರೆ	5
3	ವಿದ್ಯಾರ್ಥಿಯು 9 ಪ್ರಯೋಗಗಳನ್ನು ಪ್ರದರ್ಶಿಸಿ ರೆಕಾರ್ಡ್ ಮಾಡಿದ್ದರೆ.	4
4	ವಿದ್ಯಾರ್ಥಿಯು 9 ಕ್ಕಿಂತ ಕಡಿಮೆ ಮತ್ತು 5 ಕ್ಕಿಂತ ಹೆಚ್ಚು ಪ್ರದರ್ಶನ ನೀಡಿ ರೆಕಾರ್ಡ್ ಮಾಡಿದ್ದರೆ ಪ್ರಯೋಗಗಳು	3
5	ವಿದ್ಯಾರ್ಥಿಯು 5 ಅಥವಾ 5 ಕ್ಕಿಂತ ಕಡಿಮೆ ಪ್ರಯೋಗಗಳನ್ನು ಪ್ರದರ್ಶಿಸಿ ರೆಕಾರ್ಡ್ ಮಾಡಿದ್ದರೆ	0

32.HOMESCIENCE

	Subject: HOMESCIENCE
Method of assessment	PRACTICAL EXAMINATION
Suggested topics	LIST OF EXPERIMENTS PRESCRIBED BY DEPARTMENT OF PRE-UNIVERSITY EDUCATION, KARNATAKA 1.Elements of Art 2.Principles of Design 3.Colours 4.Food Pyramid 5.Meal planning for an Adolescent girl 6.Creative activities of Preschool children 7.Problems of Adolescence 8.Fasteners 9.Extension education for Community Development 10.Leadership in Extension
Weightage	30%
Tentative month	June to January
Objective and guidelines	OBJECTIVES: i) To develop observational skills. ii) To promote creative thinking in learners.

	<p>iii) To develop ability to verify theoretical knowledge.</p> <p>iv) to develop scientific attitude.</p> <p>GUIDELINES:</p> <p>i) Experiments must be conducted in the practical classes and they must be recorded in practical record.</p> <p>ii) The practical record should be completely handwritten with a cover page, laboratory certificate and particulars of the experiments performed.</p> <p>iii) All diagrams, tabular columns and activities performed should be drawn neatly with appropriate headings.</p> <p>iv) The submitted practical record will be assessed both by the Internal and External examiners at the time of Final practical examinations.</p>
Role of the teacher	<p>During practical class a teacher must</p> <ul style="list-style-type: none"> i) Illustrate the pictures for Interior Decoration (Elements of Art, Principles of Design) and the impact of it on the Interior ii) Colour wheel and the formation of colours. iii) Concept of Food Pyramid and importance of Balanced Diet. iv) Demonstrate various Creative activities of a Preschooler. v) Sew the fasteners using Buttonhole stitches. <p>Teacher must make the students to understand the concepts behind the experiment being performed.</p>
Scheme of evaluation Criteria for assessment and	<p>General instructions:</p> <ul style="list-style-type: none"> • Duration of examination is 2 hrs and Maximum mark allotted is 30.

weightage

SCHEME OF EVALUATION

A. Weightage of marks:

Question No.	Question	marks
1	Illustrate any two Principles of Design in the given picture (OR) Draw and colour Prang's Colour wheel using water colours	5
2	Draw Food Pyramid (OR) Plan a balanced diet for an Adolescent girl	5
3	Plan a creative activity for a Preschooler using Painting / Printing / Pasting. Write the procedure and values promoted	5
4	Sew the given Fastener using Button hole stitches	5
5	Record	6
6	Viva	4
	Total	30

I. Performing the Experiment:

Sl. No.	Particulars	Marks
1	A) Two Principles of Design in the given picture Definition and Evaluation (OR) B) Draw and colour using poster colours. Explain the colours in Prang's colour wheel	3+2 / 4 +1
2	A) Draw a neat labeled diagram of Food Pyramid (OR) B) Plan a day's balanced diet for an adolescent girl	5

	3	Plan a creative activity for a Preschooler using Painting / Printing / Pasting. Write the procedure and values promoted	2 + 3
	4	Sew the given Fastener using Button hole stitches	5
	TOTAL		20

II. Viva- voce

- Four questions must be asked and each question carries 1 mark.
- The questions in the *viva- voce* should be simple, direct and related to the experiment to be performed by the student.

III. Practical Record

Sl. No.	Particulars	Marks
1	If the student has performed and recorded 10 experiments	6
2	If the student has performed and recorded 8 or 9 experiments.	5
3	If the student has performed and recorded 7 experiments.	4
4	If the student has performed and recorded below 6 and above 3 experiments.	3
5	If the student has performed and recorded 3 or less than 3 experiments.	0

33.IT/ITeS

	Subject: IT/ITeS
Method of assessment	PRACTICAL EXAMINATION
Suggested topics	<p style="text-align: center;">PRACTICAL CONTENTS</p> <p>Unit 1: Applications of Bio-metric Data</p> <p>Report attendance using Biometric Attendance System (BAS)</p> <ul style="list-style-type: none">• Places where we use Biometric & List the data items required in the preparation of BAS.• Demonstrate the procedure of preparation of BAS• Generate various types of reports such as daily report, monthly report,• Demonstrate the maintenance procedure of biometric system for preparation of aadhar card. <p>Prepare aadhar card</p> <ul style="list-style-type: none">• List the data items required in the preparation of aadhar card & Demonstrate the procedure of preparation of aadhar card• Draw the setup diagram of various devices in preparation of aadhar card• Demonstrate the maintenance procedure of biometric system for preparation of aadhar card. <p>Prepare passport</p> <ul style="list-style-type: none">• List the data items required in the preparation of passport.

- Demonstrate the procedure of preparation of passport
- Draw the setup diagram of various devices in preparation of passport
- Demonstrate the maintenance procedure of biometric system for preparation of passport.

Prepare driving license

- List the data items required in the preparation of driving license.
- Demonstrate the procedure of preparation of driving license.
- Draw the setup diagram of various devices in preparation of driving license.
- Demonstrate the maintenance procedure of biometric system for preparation of driving license.

Prepare college/ school/ office ID

- List the data items required in the preparation of college/ school/ office ID.
- Demonstrate the procedure of preparation of college/ school/ office ID
- Draw the setup diagram of various devices in preparation of college/ school/ office ID
- Demonstrate the maintenance procedure of biometric system for preparation of college/ school/ office ID.

Unit 2: Fundamentals of Database Systems

Appreciate the use of database systems.

- List the requirement of database system for handling of large data.
- List the various database systems available for database management.

Create and update database

- List the steps for creation of simple database consisting of 5 fields

- Collect and enter appropriate data in the database.
- List the steps for updating the already created database.

Query a database

- List the steps processing a simple query such as to find the availability of data in the database
- Construct a query to search a given name in the database.

Secure the data in database

- Identify and list the possible threats to the data in database.
- Identify the security procedures for avoiding damages to the data.
- Identify the procedure to deal with damaged data.
- Demonstrate to recover the given damaged data.

Unit 3: Advanced Technologies

Appreciate the concept of cloud computing

- List the various commercial platform available for cloud services
- Demonstrate to use of cloud services for storing of data on commercial platform
- Demonstrate uploading and downloading the data using network technologies

Appreciate face recognition and palm recognition

- List out the use of face recognition in real life events (such as unlocking of mobile).
- List the challenges in face recognition.
- List out the use of palm recognition in real life events (such as Biometric Attendance System)
- List the challenges in palm recognition.

Appreciate thumb/ finger recognition and character recognition

- List out the use of thumb/ finger recognition in real life events (such as unlocking of mobile, BAS)
- List the challenges in thumb/ finger recognition.
- List out the use of character/ signature recognition in real life events (such as Conversion of image data into text System)
- List the challenges in character/ signature recognition.

Use of digital signature and scripting technology

- List the use of digital signature in authentication of digital documentation (Aadhar, PAN).
- Visit the different interactive webpages that uses scripting technology (Aadhar web Site downloading aadhar card).

Unit 4: Health and Safety Measures**Appreciate the importance of health, safety and security at work place**

- List the importance of health, safety and security at work place.
- Prepare safety and security policies(Prototype).
- List the names of govt agencies that monitor safety and security at work place.

Check air and water quality at workplace

- Prepare steps for checking of air and water quality at workplace.
- Prepare ideal guideline for clean air and clean water at work place(such as vehicle free campus).

Practice computer ergonomics

- Give the steps to maintain the cleanliness at work place.

	<ul style="list-style-type: none"> • Prepare ideal guideline for using of desk, chairs, computers, monitor, keyboard at workplace. • Identify the health problems because of wrong work habits and bad light conditions. <p>Protect against breaches in health, safety and security</p> <ul style="list-style-type: none"> • List possible situations that causes breaches in health, safety and security. • Prepare evacuation procedure for workers in case of emergencies such as fire, Flood, or any disaster. <p>Deal with the emergency services</p> <ul style="list-style-type: none"> • Prepare list of items to be kept in first aid box • Prepare the list of medical practitioners along with their phone number in the nearby region • List ideal policy for medical assistance at work place <p>NOTE : All practical contents have to covered in the practical classes.</p>
Weightage	50%
Tentative month	June to January
Objective and Guidelines	<p>OBJECTIVES:</p> <ul style="list-style-type: none"> i) Report attendance using Biometric Attendance System (BAS), Prepare aadhar card, passport, driving licence, college/School/office ID Card. ii) Appreciate the use of database systems, Create and update database, Query a database, secure the data in database. iii) Appreciate the concept of cloud computing, Appreciate face recognition and palm recognition, Appreciate thumb/finger recognition and character recognition, Use of digital signature and scripting technology. iv) Appreciate the importance of health, safety and security at work place, Check air and water quality at workplace, Practice computer ergonomics, Protect against breaches in health, safety and security, Deal with the emergency services.

	<p>GUIDELINES:</p> <ul style="list-style-type: none">i) Demonstration of the topic must be conducted in the practical classes and that must be recorded.ii) Practical record should be maintained.iii) System should be protected from restricted websites.iv) Practical session performed by the students must be secured with the available resources.v) Maintain a healthy, safe and secure working environment.vi) Student portfolio will be assessed both by the internal and external examiners at the time of final practical examination.			
Role of the teacher	<ul style="list-style-type: none">i) During practical class a teacher must give instructions about the method to perform the practical session.ii) Prepare Practical session plans.iii) Deliver education based on curriculum.iv) Engage students with learning activities, team work, and project based works and Practical hands on skills.v) Teacher must make the students to understand the concepts.vi) Trainer should work as a Facilitator at the time of assessment.			
Scheme of evaluation Criteria for assessment and weightage	<p>General instructions:</p> <ul style="list-style-type: none">• Student has to perform the task assigned by the assessors.• Duration of examination is 3 hrs and Maximum mark allotted is 50. <p>SCHEME OF EVALUATION</p> <p>A. Weightage of marks:</p> <table><tr><td><i>Sl. No.</i></td><td><i>Particulars</i></td><td><i>Marks</i></td></tr></table>	<i>Sl. No.</i>	<i>Particulars</i>	<i>Marks</i>
<i>Sl. No.</i>	<i>Particulars</i>	<i>Marks</i>		

I	Hands on Skill	30
II	Portfolio	10
III	Viva – Voce	10
TOTAL		50

B. Distribution of marks:

I. Performing the Experiment (Hands on Skill)

Sl. No.	Particulars	Marks
1	Hands on Skill/Demonstration of skill competency through simulated assessment	30
TOTAL		30

II. Viva- voce

1. Five questions must be asked and each question carries 2marks.
2. The questions in the *viva- voce* should be simple, direct and related to the syllabus.

III. Student Project Work/Protfolio

Sl. No.	Particulars	Marks
1	Student Project Work/Portfolio – Activities done in the academic year.	10

34.RETAIL

Subject	RETAIL
Method of Assessment	PRACTICAL EXAMINATION
Suggested Topics	<p>LIST OF HANDS ON SKILLS EXPERIMENTS</p> <p>PRESCRIBED BY DEPARTMENT OF PRE-UNIVERSITY EDUCATION, KARNATAKA</p> <ol style="list-style-type: none"> 1. To demonstrate of the Key aspects of becoming active listener. 2. To demonstration of writing sentences and paragraphs on topics related to subject. 3. To Conduct Group Discussion on identifying needs and desire. 4. To demonstrate the knowledge of different personality skills. 5. To demonstrate the organizational guidelines of steps to respond customers in a given condition. 6. To demonstrate and classify the benefits of products negotiations with the customers. 7. To demonstrate the process of delivering customer service. 8. To Role play on manage time with customer services. 9. To demonstrate the steps involved in CRM process. 10. To demonstrate the retailer's policy for customer retention. 11. To demonstrate how to confirm customer expectations. 12. To demonstrate the effective use of communication while deals with customers in the retail store/mall. 13. To demonstrate the mechanism for implementation of changes in customer service. 14. To demonstrate the work habits in the customer place of work habits and their implications. <p>Note: At least TWELVE (12) experiments have to be conducted in the practical classes.</p>
Weightage	50%
Tentative	June to January

Month	
Objective and Guidelines	<p>OBJECTIVES:</p> <ul style="list-style-type: none"> i) To develop experimental, observational, manipulative and problem solving skills in learners. ii) To promote creative thinking in learners. iii) To develop conceptual competence in learners and make them to realize and appreciate different concepts of Retail sector iv) To develop the communication skills while deals with customers in the retail. v) To develop the entrepreneur skills within the students. <p>GUIDELINES: i) At least 12 experiments must be conducted in the practical classes and they must be recorded in practical record.</p> <ul style="list-style-type: none"> ii) The practical record should be completely handwritten with a cover page, lab certificate and particulars of the experiments performed. iii) Prepare the charts contains opportunity of effective customer expectations/CRM should be drawn neatly with appropriate headings, scale, index etc. iv) The submitted practical record will be assessed both by the internal and external examiners at the time of final practical examinations.
Role of the teacher	<p>During practical class a teacher must give instructions about the method are</p> <ul style="list-style-type: none"> i) Prepare Practical session plans, ii) deliver education based on curriculum, iii) Engage students with learning activities, team work, project based works and Practical hands on skills. Teacher must make the students to understand the concepts behind the experiment being performed. iv) Teacher must also make the students to learn the principle behind different instruments/devices being used in the

	experiment.																											
Scheme of evaluation	<p>General instructions:</p> <ul style="list-style-type: none">• Student has to perform any ONE (1) Hands on skills selected by lottery from the list of 10 to 12 experiments set for practical examinations.• Duration of examination is 2 hrs and Maximum mark allotted is 50. Minimum TEN (10) different experiments have to be set in the practical Examination. <p>SCHEME OF EVALUATION</p> <p>A. Weightage of marks:</p> <table><tr><th><i>Sl. No.</i></th><th><i>Particulars</i></th><th><i>Marks</i></th></tr><tr><td>I</td><td>Hands on Skills</td><td>30</td></tr><tr><td>II</td><td>Viva – Voce</td><td>10</td></tr><tr><td>III</td><td>Practical Record(portfolio)</td><td>10</td></tr><tr><td colspan="2">TOTAL</td><td>50</td></tr></table> <p>B. Distribution of marks:</p> <p>I. Performing the Hands on skills</p> <table><tr><th>Sl. No.</th><th>Particulars</th><th>Marks</th></tr><tr><td>1</td><td>Writing the principle of the Hands on skills</td><td>5</td></tr><tr><td>2</td><td>Identifying the products and explaining the terms</td><td>10</td></tr><tr><td>3</td><td>Writing the diagram / figure / circuit with labeling in the record books (At least two parts)</td><td>5</td></tr></table>	<i>Sl. No.</i>	<i>Particulars</i>	<i>Marks</i>	I	Hands on Skills	30	II	Viva – Voce	10	III	Practical Record(portfolio)	10	TOTAL		50	Sl. No.	Particulars	Marks	1	Writing the principle of the Hands on skills	5	2	Identifying the products and explaining the terms	10	3	Writing the diagram / figure / circuit with labeling in the record books (At least two parts)	5
<i>Sl. No.</i>	<i>Particulars</i>	<i>Marks</i>																										
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3	Writing the diagram / figure / circuit with labeling in the record books (At least two parts)	5																										
Criteria for Assessment and weightage																												

4	Role play activities within the group	5
5	Performing the Hands on skills and entering the readings into the tabular column / Observation pattern	5
TOTAL		30

Note for Sl. No. 6:

7. At least three (3) trials have to be taken in case of finding mean value.
8. At least five (5) readings have to be taken in case of plotting the graph.

II. Viva- voce

1. **Five** questions must be asked and each question carries **2 marks**.
2. The questions in the *viva- voce* should be simple, direct and related to the practical's to be performed by the student.

III. Practical Record (Student Portfolio)

Sl. No.	Particulars	Marks
1	If the student has performed and maintained practical records (Portfolio).	10

35.AUTOMOBILE

	Subject: AUTOMOBILE
Method of Assessment	PRACTICAL EXAMINATION
Suggested Topics	LIST OF EXPERIMENTS PRESCRIBED BY DEPARTMENT OF PRE-UNIVERSITY EDUCATION, KARNATAKA <ol style="list-style-type: none">1. Reading and understanding of service manual.2. Inspection of piston clearance, end gap and side gap.3. Inspection of crank shaft and main bearing.4. Check the leakage from valve mechanism5. Inspection of clutch plate for oil leakage.6. Inspection of propeller shaft and universal joint7. Inspection of differential unit.8. Able to check the servicing, maintenance repair of leaf spring9. Testing of shock absorber of the vehicle10. Able to inspect the steering linkage.11. Able to demonstrate servicing of rock and pinion type of steering.12. Able to check the wheel balancing.13. Able to reading of circuit diagrams, cables, specification.14. Able to test electrical test equipments.15. Able to check the battery and its maintenance.16. Able to check the electrical connections17. Able to draw the circuit diagram of steering system18. Able to inspect the fuse box

	Note: At least TWELVE (12) experiments have to be conducted in the practical classes.
Weightage	50%
Tentative month	June to January
Objective and guidelines	<p><u>OBJECTIVES:</u></p> <ol style="list-style-type: none"> 1. Identify and control hazards in the workplace that pose a danger or threat to their safety or health, or that of others. 2. Demonstrate the ability to provide a self-analysis in context of entrepreneurial skills and abilities. 3. Communicate effectively with the customers. 4. Identify features of different elements of Engineering such as mechanical, electrical, electronic, software and safety engineering 5. Repairing and servicing automobiles such as cars, trucks, motorcycles, scooters etc 6. Understanding the mechanism of vehicle chassis, internal combustion engine, electrical systems, motor transport affairs, workshop technology. <p><u>GUIDELINES:</u></p> <ol style="list-style-type: none"> 1. At least 10 demonstration must be conducted in the practical classes and they must be recorded in practical work book (Student Portfolio has to be maintained) 2. The practical record should be maintained and completely handwritten with a cover page in a practical book (Includes activities, assignments and test papers) 3. Draw the different components of the vehicle and mention their parts

	<p>4. The student portfolio will be assessed both by the internal and external examiners at the time not final practical examinations.</p>
Role of the Trainer	<p>During practical class a trainer must give instructions to students regarding:</p> <ol style="list-style-type: none"> 1. Safety precaution, 2. Handling and usage of tools and equipment, 3. Hands on skill 4. Maintaining Students portfolio 5. Viva (Regarding the practical experiments that have been conducted) 6. Trainer must make the students to understand the concepts behind the different parts of a vehicle that are used in practical class. 7. Trainer must also make the students to learn the principle behind different instruments/devices being used in the experiment.
Scheme of evaluation	<p><u>GENERAL INSTRUCTIONS:</u></p> <ol style="list-style-type: none"> 1. Student has to demonstrate any one task or group activities assigned by the external assessor, 2. Student has to explain the tools and equipments that are being used in practical demonstration. 3. Duration of practical examination set by external assessor and also depends on the number of students appeared in the practical examination. 4. Minimum Five (5) different demonstration or activities have to be set in the practical Examination. 5. The maximum marks allotted in practical examination is 50 6. Duration of practical examination : 3hrs <p><u>SCHEME OF EVALUATION</u></p>
Criteria for	<p>A. WEIGHTAGE OF MARKS:</p>

**assessment
and weightage**

Sl. No.	Particulars	Marks
I	Practical (Hands on skill)	30
II	Viva – Voce/ Oral	10
III	Student Portfolio/Assignment	10
TOTAL		50

B. DISTRIBUTION OF MARKS:

I. PERFORMING THE EXPERIMENT(Practical)

Sl. No.	Particulars	Marks
1	Safety Precaution	5
2	Practical Demonstration	10
3	Knowledge and understanding the performing the given task	10
4	Writing or list out the components and identification of AUTOMOBILE parts	5
TOTAL		30

II. VIVA- VOCE

- 1. Minimum Five questions must be asked and each question carries 2marks.**
- 2. The questions in the *viva- voce* should be simple, direct, and related to the syllabus.**
- 3. After completion of practical exam each students has to be assessed through viva-voce/oral**
- 4. It allows students to demonstrate communication skill and content knowledge.**
- 5. Video recording can be done at the time of oral test.**

III. STUDENT PORTFOLIO

		Sl. No.	Particulars	Marks	
		1	If the student has conducted activities	2	
		2	If the student has undergone Formal Assessments	2	
		3	If the student has submitted written assignments	2	
		4	If the student has prepared any project work or models or chart	2	
		5	Student attendance, observation, communication skill, interpersonal relationship, innovation, and creativity	2	

36. BEAUTY & WELLNESS

	Subject: BEAUTY & WELLNESS
Method of Assessment	PRACTICAL EXAMINATION
Suggested topics	<p>LIST OF DEMONSTRATIONS</p> <ul style="list-style-type: none">23. Perform different types of manicure methods.24. Describe the use of modern technologies in manicure.25. Perform different types of pedicure methods.26. Describe the use of modern technologies in pedicure.27. Perform advance facial techniques.28. Describe the use of modern technologies in facial treatment.29. Identify the modern tools used for facial.30. Demonstrate the technique of shaping of eyebrows.31. Perform different types of make up for different occasions.32. Design a 2D nail art image.33. Demonstrate a nail Art.34. Perform various hair-cuts.35. Perform various hair-styles.36. Perform various hair colouring.37. Demonstrate the process of using a hair straightener.38. Demonstrate the use of rollers to curl hair.39. Demonstrate advanced techniques of Ayurvedic massage, Balinese massage and Reflexology. <p>Note: All experiments should be conducted in the practical classes.</p>
Weightage	50%

Tentative month	June to January
Objective and Guidelines	<p>OBJECTIVES:</p> <ol style="list-style-type: none"> 4. To promote creative thinking in learners. 5. To make effective use of a variety of instructional aids such as Videos, Power Point Presentations, Charts, Diagrams, Models, Exhibitions, etc, to the learners to transmit knowledge in projective and interactive mode. 6. To develop conceptual competence in learners and make them to realize and appreciate different concepts. 7. To understand the fundamentals of entrepreneurship. <p>GUIDELINES:</p> <ol style="list-style-type: none"> 5. All demonstrations must be conducted in the practical classes and they must be recorded. 6. Specialized techniques such as handling of products and equipment, maintaining safe and hygienic conditions, handling customer's complaints and requirements, etc are to be imparted to the students. 7. The practical record should be completely handwritten with the demonstrations procedure which has to be performed. 8. The submitted practical record and Student Portfolio will be assessed both by the internal and external examiners at the time of final practical examinations.
Role of the Teacher	<p>During practical class a teacher must give instructions about the method of,</p> <ol style="list-style-type: none"> v) Setting the Tools & Raw Materials. vi) Meticulous observation and Guidance. vii) Observation of the procedures (Steps) thoroughly and identifying the tools and materials. viii) Teacher must make the students to understand the concepts before it is being performed. ix) Teacher must also make the students to learn the proper techniques behind every different demonstrations being performed.
Scheme of evaluation	<p>General instructions:</p> <ul style="list-style-type: none"> • Student has to perform any ONE (1) or TWO (2) experiments selected from the list of 10 to 17 Demonstrations set for practical examinations. • Duration of examination is 3 hrs. • Maximum mark allotted is 50.

37. ಹಿಂದೂಸ್ತಾನಿ ಸಂಗೀತ

Subject:	ಹಿಂದೂಸ್ತಾನಿ ಸಂಗೀತ
Method of assessment	ಅ. ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆ
Suggested topics	ಪದವಿ ಪೂರ್ವ ಶಿಕ್ಷಣ ಇಲಾಖೆ, ಕರ್ನಾಟಕ ಸರ್ಕಾರ ನಿಗದಿ ಪಡಿಸಿರುವ 90 ಅವಧಿ ಭಾಗ-A - 10 ಭಾಗ-B -60, ಭಾಗ-C-10, ಭಾಗ-D-10 ಪ್ರಾಯೋಗಿಕಗಳು.
Weightage	60%
Tentative month	ಜೂನ್ ಇಂದ ಜನವರಿ ವರೆಗೆ
Objective and guidelines	<p>ಉದ್ದೇಶಗಳು : i) ಕಲಿಕಾರ್ಥಿಗಳಲ್ಲಿ ಪ್ರಾಯೋಗಿಕ, ಶ್ರವಣ ಜ್ಞಾನ, ಸ್ವರ ಜ್ಞಾನ ಮತ್ತು ಕಲಿತ ವಿಷಯ ಪ್ರಸ್ತುತ ಪಡಿಸುವ ಸಾಮರ್ಥ್ಯಗಳನ್ನು ಹೆಚ್ಚಿಸುವುದು.</p> <p>ii) ಕಲಿಕಾರ್ಥಿಗಳಲ್ಲಿ ವಿವಿಧ ಗೇಯ ಪ್ರಕಾರಗಳ ಬಗ್ಗೆ ಅಭಿರುಚಿ ಬೆಳೆಸುವುದು.</p> <p>iii) ಕಲಿಕಾರ್ಥಿಗಳಲ್ಲಿ ಸ್ವರ ಮತ್ತು ತಾಳದಲ್ಲಿ ಪ್ರಬುದ್ಧತೆಯನ್ನು ಸಾಧಿಸುವುದು.</p> <p>ಮಾರ್ಗಸೂಚಿಗಳು: i) 90 ಅವಧಿ ಭಾಗ-A - 10 ಭಾಗ-B -60, ಭಾಗ-C-10, ಭಾಗ-D-10 ಪ್ರಾಯೋಗಿಕಗಳನ್ನು ನಡೆಸಿ ಅದನ್ನು ದಿನಚರಿ ಪುಸ್ತಕದಲ್ಲಿ ನಮೂದಿಸುವುದು.</p> <p>ii) ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಪ್ರಯೋಗಿಕವಾಗಿ ಹೇಳುವ ವಿಷಯವನ್ನು ಪ್ರಯೋಗ ಪುಸ್ತಕದಲ್ಲಿ ಬರೆಯಲು ಸೂಚಿಸುವುದು. ಈ ವಿಷಯವು ಗಾಯನ, ಸಿತಾರ ಮತ್ತು ತಬಲಾ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಒಂದೇ ಇರುವುದರಿಂದ ಆಯಾ ವಿಷಯಕ್ಕೆ ತಕ್ಕಂತೆ ಪ್ರಯೋಗ ಪುಸ್ತಕವನ್ನು ಬರೆಯುವುದು.</p> <p>iii) ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಯಲ್ಲಿ ಸಲ್ಲಿಸುವ ಪ್ರಯೋಗ ಪುಸ್ತಕವನ್ನು ಆಂತರಿಕ ಮತ್ತು ಬಾಹ್ಯ ಪರೀಕ್ಷಕರು ಒಟ್ಟಿಗೆ ಸೇರಿ ಮೌಲ್ಯಮಾಪನ ಮಾಡಬೇಕು.</p>
Role of the teacher	ಪ್ರಾಯೋಗಿಕ ತರಗತಿಯಲ್ಲಿ ಉಪನ್ಯಾಸಕರು ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ i) ಪ್ರಾರಂಭದಲ್ಲಿ ತಾಳಬದ್ಧ ಅಲಂಕಾರಗಳನ್ನು ವಿವಿಧ ತಾಳಗಳಲ್ಲಿ ಕಲಿಸುವುದು. ಪಠ್ಯಕ್ರಮದ ತಾಳಗಳನ್ನು ತಾಳಲಿಪಿ ಪದ್ಧತಿಯಲ್ಲಿ ಬರೆಯಿಸಿ ಅವುಗಳನ್ನು ಪ್ರಯೋಗಿಕವಾಗಿ ಕೈಯಲ್ಲಿ ಹಾಕಲು ಕಲಿಸುವುದು ii) ಪ್ರಾಯೋಗಿಕ ಪಠ್ಯಕ್ರಮಕ್ಕೆ ಇರುವ ರಾಗಗಳನ್ನು ರಾಗದ ಶಾಸ್ತ್ರೀಯ ಮಾಹಿತಿ ಮತ್ತು ಛೋಟಾಖ್ಯಾಲ ಅಥವಾ ರಜಾಖಾನಿ ಗತ್‌ನ್ನು ಸ್ವರ ಲಿಪಿ ಪದ್ಧತಿಯಲ್ಲಿ

	<p>ಬರೆಯಿಸಬೇಕು. ತಬಲಾ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಪಠ್ಯಕ್ರಮಕ್ಕೆ ಇರುವ ತಾಲಗಳನ್ನು ತಾಲಲಿಪಿ ಪದ್ಧತಿಯಲ್ಲಿ ಬರೆಯಿಸಬೇಕು. iii) ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಸಂವಹನ ಮಾಧ್ಯಮದ ಮೂಲಕ ವಿವಿಧ ಕಲಾವಿದರ ಕಲಾ ಪ್ರದರ್ಶನದ ತುಣುಕುಗಳನ್ನು ತೋರಿಸುವುದು.</p>															
<p>Scheme of evaluation</p>	<p><u>ಸಾಮಾನ್ಯ ಸೂಚನೆಗಳು</u></p> <ul style="list-style-type: none"> • ಒಬ್ಬ ವಿದ್ಯಾರ್ಥಿಗೆ ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಗೆ ನಿಗದಿಪಡಿಸಿರುವ ಅವಧಿ 25 ನಿಮಿಷಗಳು ಮತ್ತು ಗರಿಷ್ಠ ಅಂಕ 60. • ಪ್ರಾಯೋಗಿಕ ಪರೀಕ್ಷೆಯಲ್ಲಿ ಪ್ರಾಯೋಗಿಕ ಪುಸ್ತಕಕ್ಕೆ 10 ಅಂಕಗಳು. • ಗಾಯನ, ಸಿತಾರ ಮತ್ತು ತಬಲಾ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ ಪಾರಿಭಾಷಿಕ ಶಬ್ದಗಳ ವಿವರಣೆಗೆ 10 ಅಂಕಗಳು. • ತಾಲದ ವಿವರಣೆಗಾಗಿ 10 ಅಂಕಗಳು. • ಅಲಂಕಾರದ ವಿಭಾಗದ ಪ್ರಶ್ನೆಗೆ 10 ಅಂಕಗಳು. ವಾದನದ ವಿದ್ಯಾರ್ಥಿಗಳು ಅಲಂಕಾರಗಳನ್ನು ವಾದ್ಯದ ಮೇಲೆ ನುಡಿಸಿ ತೋರಿಸಬೇಕು. • ಖ್ಯಾಲ ಗಾಯನಕ್ಕಾಗಿ ಮತ್ತು ಸುಗಮ ಸಂಗೀತಕ್ಕಾಗಿ 20 ಅಂಕಗಳು. ವಾದನದ ವಿದ್ಯಾರ್ಥಿಗಳು ಅಲಂಕಾರಗಳನ್ನು ವಾದ್ಯದ ಮೇಲೆ ನುಡಿಸಿ ತೋರಿಸಬೇಕು. <p>ಮೌಲ್ಯಮಾಪನದ ಯೋಜನೆ</p> <p>ಅಂಕ ನಿಗದಿಯ ಮಾನದಂಡ</p> <table> <tr> <th>ಕ್ರ ಸಂ</th> <th>ವಿವರಗಳು</th> <th>ಅಂಕಗಳು</th> </tr> <tr> <td>I</td> <td>ಪ್ರಾಯೋಗಿಕವನ್ನು ನಡೆಸಲು</td> <td>40</td> </tr> <tr> <td>II</td> <td>ಮೌಖಿಕ ಪರೀಕ್ಷೆ</td> <td>10</td> </tr> <tr> <td>III</td> <td>ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್</td> <td>10</td> </tr> <tr> <td>ಒಟ್ಟು</td> <td></td> <td>60</td> </tr> </table>	ಕ್ರ ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು	I	ಪ್ರಾಯೋಗಿಕವನ್ನು ನಡೆಸಲು	40	II	ಮೌಖಿಕ ಪರೀಕ್ಷೆ	10	III	ಪ್ರಾಕ್ಟಿಕಲ್ ರೆಕಾರ್ಡ್	10	ಒಟ್ಟು		60
ಕ್ರ ಸಂ	ವಿವರಗಳು	ಅಂಕಗಳು														
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