ग्रामीण मुक्त विद्यालयी शिक्षा संस्थान
Grameen Mukt Vidhyalayi Shiksha Sansthan

Syllabus

Based on National Curriculum FrameWork

Syllabus Based on National Curriculum FrameWork

GMVSS

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Website: www.gmvss.ac.in

Syllabus Prescribed
For
Senior Secondary (11th)
School Examination

For
Class XIth (+1)

Note :

The Board reserves the right to amend Syllabus and Courses as and when it deems necessary. The Centres are required to strictly follow the curriculum and text books as prescribed by the Board for the academic sessions and examinations concerned. No deviation is permissible.

हिंदी +1 2024-2025

उच्चतर माध्यमिक स्तर में प्रवेश लेने वाला विद्यार्थी पहली बार सामान्य शिक्षा से विशेष अनुशासन की शिक्षा की ओर उन्मुख होता है। दस वर्षों में विद्यार्थी भाषा के कौशलों से परिचित हो जाता है। भाषा और साहित्य के स्तर पर उसका दायरा अब वर्षों में विद्यार्थी भाषा के कौषलों से परिचित हो जाता है। भाषा और सहित्य के स्तर पर उसका दायरा अब घर आस–पड़ोस, स्कूल, प्रांत और देश से होता हुआ धीरे–धीरे विश्व तक फैल जाता है। वह इस उम्र में पहुँच चुका है कि देश की सांस्कृतिक, सामाजिक, राजनीतिक और आर्थिक समस्याओं पर विचार–विमर्श कर सके, एक ज़िम्मेदार नागरिक को तरह अपनी जिम्मेदारियों को समझ सके तथा देश और खुद के सही दिशा दे सकने में भाषा की ताकत को पहचान सके। ऐसे दृढ़ भाषिक और वैचारिक आधार के साथ जब विद्यार्थी आता है तो उसे विमर्श की भाषा के रूप में हिंदी की व्यापक समझा और प्रयोग में दक्ष बनाना सबसे पहला उद्देश्य होगा। किशोरावस्था से युवावस्था के इस नाजुक मोड़ पर किसी भी विषय का चुनाव करते समय बच्चे और उनके अभिभावक इस बात को लेकर सबसे अधिक चिंतिरहते हैं कि चयनित विषय उनके भावी कैरियर और जीविका के अवसरों में मदद करेगा कि नहीं। इस उम्र के विद्यार्थियों में चिंतन और निर्णय करने की प्रवृत्ति भी प्रबल होती है। इसी आधार पर वे अपने मानसिक, सामाजिक, बौद्धिक और भषिक विकास के प्रति भी सचेत हेते हैं और अपने भावी अध्ययन की दिशा तय करते हैं इस स्तर पर एच्छिक हिंदी का अध्ययन एक सृजनात्मक, साहित्यिक, संस्कृतिक और विभिन्न प्रयुक्तियों की भषा के रूप में होगा। इस बात पर भी बल दिया जाएगा कि निंतर विकसित होती हिंदी के अखिल भारतीय स्वरूप से बच्चे का रिश्ता बन सके।

इस स्तर पर विद्यार्थियों में भषा के लिखित प्रयोग के साथ–साथ उसके मौखिक प्रयोग की कुशलता और दद्वाता का विकास भी ज़रूरी है। प्रयास यह भी होगा कि विद्यार्थी अपने बिखरे हुए विचारों और भावों की सहज और मौलिक अभिव्यक्ति की क्षमता हासिल कर सके।

इस पाठ्यक्रम के अध्ययन से (1) विद्यार्थी अपनी रूचि और आवश्यकता के अनुरूप साहित्य का गहन और विशेष अध्ययन जारी रख सकेंगे। (2) विश्वविद्यालय स्तर पर निर्धारित हिंदी साहित्य से संबंधित पाठ्यक्रम के साथ सहज संबंध स्थापित कर सकेंगे। (3) लेखन कौशल के व्यावहारिक और सृजनात्मक रूपों की अभिव्यक्ति में सक्षम हो सकेंगे। (4) रोजगार के किसी भी क्षेत्र में जाने पर भाषा का प्रयोग प्रभावी ढंग से कर सकेंगे। और (5) यह पाठ्यक्रम विद्यार्थी को संचार तथा प्रकाशन जैसे विभिन्न क्षेत्रों में अपनी क्षमता आजमाने के अवसर प्रदान कर सकता है।

उद्देश्य

- सृजनात्मक साहित्य की सराहना, उसका आनंद उठाना और उसके प्रति सृजनात्मक और आलोचनात्मक दृष्टि का विकास।
- साहित्य की विविध विधाओं (कविता, कहानी, निबंध आदि) महत्त्वपूर्ण कवियों और रचनाकारों, प्रमुख धाराओं और शैलियों का परिचय कराना।
- भाषा की सृजनात्मक बारीकियों और व्यावहारिक प्रयोग का बोध तथा उसका संदर्भ और समय के अनुसार प्रभावशाली ढंग से मौखिक और लिखित अभिव्यक्ति कर सकना।
- विभिन्न ज्ञानानुशासनों के विमर्श की भाषा के रूप में हिंदी की विशिष्ट प्रकृति एवं क्षमता का बोध कराना।
- साहित्य की प्रभावकारी क्षमता का उपयोग करते हुए सभी प्रकार की विविधदाओं (धर्म, जाति, लिंग, वर्ग, भाषा आदि) एवं अंतरों के प्रति सकारात्मक और संवेदनशील रवैये का विकास कराना।
- देश–विदेश में प्रचलित हिंदी के रूपों से परिचित कराना।

- संचार–माध्यमों (प्रिंट और इलेक्ट्रॉनिक) में प्रयुक्त हिंदी की प्रकृति से अवगत कराना और नवीन विधियों के प्रयोग की क्षमता का विकास करना।
- साहित्य की व्यापक धारा के बीच रखकर रचनाओं का विश्लेषण और विवेचन करने की क्षमता हासिल करना।
- विपरीत परिस्थितयों में भी भाषा का इस्तेमाल शांति के साथ करना।
- अमूर्त विषयों पर प्रयुक्त भाषा का विकास तथा कल्पनाशीलता औ मौलिक चिंतन के लिए प्रयोग करना।

पाठ्य सामग्री और पाठ्य बिंदु

1. काव्य और गद्य संग्राह भाग–1 में प्रमुख रचनाकारों द्वारा लिखित विविध विधाओं से संबद्ध काव्य और गद्य रचनाएँ होगी। ये रचनाकारों और विधाओं की विभिन्न शैलियों से विद्यार्थी की परिचित कराएँगी। रचनाओं में लेखन–परिचय में उनकी साहित्यिक पृष्ठभूमि, साहित्यिक प्रवृत्ति संक्षेप में दी जा सकती है। प्रश्न– अभ्यासों में ऐसे प्रश्न होंगे जो विद्यार्थी को सृजनात्मकता और मौलिकता का विकास कर सके। रचनाओं की प्रस्तुति इस प्रकार होगी कि विद्यार्थी में साहित्य के विकासात्मक स्वरूप ही समझ बन सके।

2. ग्यारहवीं के ऐच्छिक पाठ्यक्रम के लिए पूरक पठन का प्रावधान–साहित्य की विविध विधाओं की रचनाओं का एक संकलन (भाग–1)

3. रचनात्मक और व्यावहारिक लेखन पर आधारित एक पुस्तक (कक्षा जमा एक और जमा दो दोनों के लिए) इस पुस्तक में निम्न विषय सम्मिलित होंगे।

सृजनात्मक लेखन–कविता, नाटक, डायरी, कहानी

सूचना तंत्र के लिए लेखन–

(क) प्रिंटमाध्यम (समाचार पत्र और पत्रिका)

वृत्त लेखन, पुस्तक–समीक्षा, साक्षात्कार, सामाजिक विषयों पर लेखन

(ख) इलेक्ट्रॉनिक माध्यम–

रेडियो–दूरदर्शन के लिए लेखन, समाचार लेखन

व्यावहारिक लेखन–

प्रतिवेदन, कार्यसूची, कार्यवृत्त

शिक्षण– युक्तियाँ

इन कक्षाओं में अध्यापकों की भूमिका उचित वातावरण निर्माण में सहायक की होनी चाहिए। उनको भाषा और साहित्य की पढ़ाई में इस बात पर ध्यान देने की जरूरत होगी कि–

- कक्षा का वातावरण संवादात्मक की ताकि अध्यापक विद्यार्थी और पुस्तक तीनों के बीच एक रिश्ता बन सके।
- गलत से सही की ओर पहुचने का प्रयास हो। यानी बच्चों को स्वतंत्र रूप से बोलने, लिखने और पढ़ने दिया जाए और फिर उनके होने वाली भूलों की पहचानकर अध्यापक अपनी पढ़ाने की शैली में परिवर्तन करे।
- ऐसे शिक्षण–बिंदुओं की पहचान की जाए जिससे कक्षा में विद्यार्थी की सक्रिय भागीदारी रहे और अध्यापक भी उनका साथी हो।
- शारीरिक बाधाग्रस्थ विद्यार्थियों के लिए उपयुक्त शिक्षण सामग्री का इस्तेमाल किया जाए तथा किसी भी प्रकार से उन्हे अन्य विद्यार्थियों से कमतर या अलग न समझा जाए।
- कक्षा में अध्यापक की हर प्रकार की विभिन्नताओं (लिंग, धर्म, जाति वर्ग आदि) के प्रति साकारात्मक और संवेदनशील वातावरण निर्मित करना चाहिए।
- सृजनात्मक के अभ्यास के लिए विद्यार्थी से साल में कम से कम दो रचनाएं लिखवाई जाए।

अंतरा भाग–1

गद्य–खंड

1. प्रेमचंद (ईदगाह)
2. अमरकांत (दोपहर का भोजन)
3. हरिशंकर परसाई (टार्च बेचनेवाले)
4. रांगेय राघव (गूँगे)
5. सुधा अरोड़ा (ज्योतिबा फुले)
6. ओमप्रकाश वाल्मीकि (खानाबदोश)
7. पांडेय बेचन शर्मा 'उग्र' (उसकी माँ)
8. भारतेंदु हरिश्चंद्र (भारतवर्ष की उन्नति कैसे हो सकती है?)

काव्य–खण्ड

कबीर	:–	अरे इन दोहुन राह न पाई
		बालम, आवो हमारे गेह रे
सूरदास	:–	खेलन में को काकों गुसैयाँ
		मुरली तऊ गुपालहिं भावति
दवे	:–	हँसी की चोट
		सपना
		दरबार
सुमित्रानंदन पंत	:–	संध्या के बाद
महादेवी वर्मा	:–	जाग तुझको दूर जाना
नागार्जुन	:–	बादल को घिरते देखा है
श्रीकांत वर्मा	:–	हस्तक्षेप
धूमिल	:–	घर में वापसी

अंतराल भाग–1

हुसैन की कहानी अपनी ज़बानी

- बड़ौदा का बोर्डिं स्कूल
- रानीपुर बाज़ार

मकबूल फ़िदा हुसैन

आवारा मसीहा

- दिशाहारा

विष्णु प्रभाकर

(क)	**अपठित बोध (गद्यांश और काव्यांश बोध)**
(ख)	**रचनात्मक तथा व्यावहारिक लेखन**
(ग)	**अंतरा, भाग–1 (काव्य भाग)** **(गद्य– भाग)** **पूरक पुस्तक, भाग–1**

क. अपठित बोध (गद्यांश और काव्यांश बोध)

1. गद्यांश पर आधारित चार लघूतरात्मक प्रश्न तथा शीर्षक का चुनाव
2. काव्यांश पर आधारित पांच लघूतरात्मक प्रश्न

ख. रचनात्मक तथा व्यावहारिक लेखन

निर्धारित पुस्तक के आधार पर सृजनात्मक लेखन से संबंधित प्रश्न
निबंध
पत्र
व्यावहारिक लेखन पर प्रश्न
प्रतिवेदन, कार्यसूची, कार्यवृत्त इत्यादि

ग. अंतरा, भाग–1 (काव्य भाग)

सप्रसंग व्याख्या
कविता के कथ्य और काव्य–सौंदर्य पर प्रश्न
काव्य पर प्रश्न
काव्य पर–सौन्दर्य पर
किसी एक कवि का परिचय
जीवन परिचय
रचना–परिचय
काव्य–शिल्प की विशेषता

गद्य भाग

सप्रसंग व्याख्या
पाठों की विषय वस्तु पर आधारित से प्रश्न
पूछे गये लेखकों में से किसी एक का परिचय
(जीवन–परिचय, रचना–परिचय, भाषा–शिल्प की विशेषताएं)

पूरक पुस्तक, भाग–1

विषय वस्तु पर आधारित प्रश्न
विविध विधाओं पर आधारित बोधात्मक प्रश्न

निर्धारित पुस्तकें :–

(1) अंतरा भाग–1	(हि0 प्र0 स्कूल शिक्षा बोर्ड द्वारा प्रकाशित)
(2) अंतराल	(हि0 प्र0 स्कूल शिक्षा बोर्ड द्वारा प्रकाशित)
(3) अभिव्यक्ति और माध्यम	(हि0 प्र0 स्कूल शिक्षा बोर्ड द्वारा प्रकाशित)

Odia
Class:XI

First Paper

Prose (ଗଦ୍ୟ):

- ଜାତୀୟ ଜୀବନ (Jatiya Jibana)
- ଭାଷା ଓ ଜାତୀୟତା (Bhasa o Jatiyata)
- ବାମନର ହାତ ଓ ଆକାଶର ଚନ୍ଦ୍ର (Bamanara Hata O Akashara Chandra)
- ପ୍ରାକୃତ ବନ୍ଧୁ (Prakruta Bandhu)
- ସମୂହ ଦୃଷ୍ଟି (Samuha Drusti)

Poetry (ପଦ୍ୟ):

- ବନ୍ଦେ ଉତ୍କଳ ଜନନୀ (Bande Utkala Janani)
- କହ ମୁଖ ଆଣେ (Kaha Mukha Anai)
- ପଦ୍ମା (Padma)
- ମନୀଷା ଭାଇ (Manisa Bhai)
- ଗୋପ ପ୍ରୟାଣ (Gopa Prayana)
- ମାଟିର ମନୀଷା (Matira Manisa)

Short Stories (କ୍ଷୁଦ୍ରଗଳ୍ପ):

- ବୁଢ଼ା ଶଙ୍ଖାରୀ (Budha Sankhari)
- ପତାକା ଉତ୍ତୋଳନ (Pataka Uttolana)
- ଲକ୍ଷ୍ମୀର ଅଭିସାର (Laxmira Abhisara)

One-Act Play (ଏକାଙ୍କିକା):

- ଡାଲା ବେହେରା (Dala Behera)

Grammar (ବ୍ୟାକରଣ):

Sandhi (ସନ୍ଧି):

- ସ୍ୱର ସନ୍ଧି (Swara Sandhi)
- ବ୍ୟଞ୍ଜନ ସନ୍ଧି (Byanjana Sandhi)
- ବିସର୍ଗ ସନ୍ଧି (Bisarga Sandhi)

Samasa (ସମାସ):

- ତତ୍ପୁରୁଷ ସମାସ (Tatpurusa Samasa)
- ଦ୍ୱନ୍ଦ୍ୱ ସମାସ (Dwandwa Samasa)
- ଦ୍ୱିଗୁ ସମାସ (Dwigu Samasa)
- କର୍ମଧାରୟ ସମାସ (Karmadharaya Samasa)
- ବହୁବ୍ରୀହି ସମାସ (Bahubrihi Samasa)
- ଅବ୍ୟୟୀଭାବ ସମାସ (Abyaibhaba Samasa)

Krudanta and Tadhita (କୃଦନ୍ତ ଓ ତଦ୍ଧିତ):

- କୃଦନ୍ତ (Krudanta)
- ତଦ୍ଧିତ (Tadhita)

Upasarga (ଉପସର୍ଗ):

- ଉପସର୍ଗ (Upasarga)

Comprehension (ବୋଧଗମ୍ୟତା):

- ଅଦୃଶ୍ୟ ଗଦ୍ୟ ଅଂଶ (୧୨୦-୧୫୦ ଶବ୍ଦ) (Adrushya Gadya Ansha)

Essay Writing (ରଚନା):

- ଆବେଦନ ଲେଖା (Abedana Lekha)
- ସମସାମୟିକ ବିଷୟ ଉପରେ ରଚନା (Samasamayika Bishaya Uparare Rachana)
- ଆଧିକାରିକ ରଚନା (Adhikarika Rachana)

संस्कृतम् (ऐच्छिकम्) (+1)

विषयानुक्रमणिका

पाठ्यक्रमः परीक्षानिर्देशाश्च

एकम्` प्रश्नपत्रम् **अवधि: होरात्रयम्** **पूर्णाङ्का :**

अस्मिन् प्रश्नपत्रे चत्वार : खण्डाः भविष्यन्ति

खण्ड: **(क)** अपठितांश-अवबोधनम्

(ख) रचनात्मककार्यम्

(ग) अनुप्रयुक्तव्याकरणम्

(घ) **(अ)** पठित अवबोधनम्
(आ) संस्कृतसाहित्येतिहासस्य परिचयः

प्रतिखण्डं विस्तृतविवरणम्।

खण्डः 'क' (अपठितांशावबोधनम्)

80-100 शब्दपरिमितः एकः सरल: अपठित गद्यांशः। संस्कृतसाहित्यपरिचायकं विषयवस्तु स्यात्।

प्रश्नवैविध्यम्

(1) एकपदेन उत्तरम्
(2) पूर्णवाक्येन उत्तरम्
(3) सर्वमानस्थाने संज्ञाप्रयोगः
(4) कर्ता-क्रिया-अन्वितिः
(5) विशेषण-विशेष्य / पर्याय विलोमादिचयनम्
(6) समुचितशीर्षकप्रदानम्
(7) कर्तृ - क्रिया-पदचयनम्

खण्डः 'ख' (रचनात्मककार्यम्)

संस्कृतेन रचनात्मकं लिखितकार्यम्

1. कस्यचिद् ग्रन्थस्य वैशिष्ट्यमधिकृत्य (प्रदत्तसंकेताधारितम्)
   अनौपचारिक पत्रम् / औपचारिकं पत्रम्

2. संकेताधारितम् अनुच्छेदलेखनम्
प्रदत्ततथ्यसाहाय्येन (कमपि कविम् काव्यम् अधिकृत्य).

खण्ड- 'ग' (अनुप्रयुक्तव्याकरणम्)

1. वर्णानाम् उच्चारणस्थानानि
2. सन्धिः

सन्धिकरणम् सन्धिछेदः च

वाक्येषु एवं अधोलिखितसन्धिनियमान् आधारीकृत्य-स्वरसन्धिः दीर्घः, गुणः, वृद्धि, यण, अयादि, पूर्वरूपम्
व्यञ्जनसन्धिः श्चुत्वम्, ष्टुत्वम्, णत्वविधानम्, षत्वविधानम्, चवम् , आगमः, मोऽनुस्वारः,
परसवर्णः विसर्गसन्धिः सत्वम्, उत्वम्, रकारः, लोप:

3. वाक्येषु शब्दप्रयोगः (अधोलिखितशब्दरूपाणि अधिकृत्य)
अजन्ताः सर्व, पूर्व, प्रथम, द्वितीय, सखि, पति, दात, न, गो, स्वस्, अक्षि

हलन्ता : पथिन्, मरुत, तादृश्, अदस् , दिश् वाच् गिर् धनिन् पयस् पञ्चन्, षट् सप्तन्, अष्टन, नवन् दशन्

4. वाक्येषु क्रियाप्रयोगः (अधोलिखितधातून् अधिकृत्य)

धातवः
भू (भव्) पठ् ,हस्, नम् , गम् (गच्छ्) अस् हन् क्रुध्, नश् नृत् , आप् शक्, इष् प्रच्छ्, कृ, ज्ञा, भक्ष , चिन्त् , तेषाम् समानार्थकाश्च
आत्मनेपदिन: सेन्, लभ, रुच, मुद्, याच् ,

उभयपदिनः नी, ह, भज्, पच्,

5. पाठ्यांशेषु अधोलिखितप्रत्यययुक्तानि पदानि अधिकृत्य प्रश्नाः
अ कृदन्तानिक्त, क्त, क्तवतु, शत, शानच, क्त्वा, ल्यप, तुमुन् यत्, तव्यत्, अनीयर, तृच् ण्वुल, क्तिन, णिनि, अच्

आ. तद्धितान्तानि- इन, ठक, अण, त्व, मयट, ईयसुन, इष्ठन्
इ. स्त्रीप्रत्ययाः - टाप, डीप्

6. अव्ययप्रयोगा:

पठितपाठ्यांशेषु अधोलिखित-अव्ययपदैः रिक्तस्थानपूर्ति :
पुनः उच्चैः, नीचैः, शनैः अद्य, ऋते. युगपत, अद्य, श्व: हयः, सायम, चिरम, ईषत् तूष्णीम्, सहसा,

मिथ्या, पुरा, प्राय: नूनम्, भूयः, खल, किल, पठितांशेषु प्रयुक्तानि अन्यानि अव्ययपदानि च।

7. विभक्तिप्रयोगाः
पठितपाठ्यांशेषु प्रयुक्त-उपपदकारकविभक्ती: अधिकृत्य प्रश्नाः

08. पठित पाठ्यांशेषु सरलसमस्तपदानां विग्रहाः

खण्डः 'घ

भाग : 'अ (पठितांश-अवयोधनम्)

1. त्रयः अंशाः

1. गद्यांश:
2. पद्यांश:
3. नाट्यांश:

प्रश्नवैविध्यम्

एकपदेन उत्तरम्
पूर्णवाक्येन उत्तरम्
विशेषण-विशेष्य अन्वितिः / पर्याय: / विलोमचयनम् कर्तृ-क्रिया पदचयनम् सर्वनामस्थाने संज्ञाप्रयोगः / क: कम् कथयति
2. कथनानि आश्रित्य प्रश्ननिर्माणम्
3. अन्वयलेखनम् / रिक्तस्थानपूर्तिमाध्यमेन अन्वय:
4. प्रदत्तपंक्तिषु चारित्रिकवैशिष्टयक्तनम्/ भावार्थलेखनम्
5. बहुविकल्पीय प्रश्नाः (पाठाधारित प्रश्नाः, प्रश्ननिर्माणं अन्वयं च)

खण्ड-'घ'

भाग : 'आ' (संस्कृतसाहित्यस्य इतिहासः)

अतिलघूनर / लघूत्तरप्रश्नमाध्यमेन संस्कृतनाट्यसाहित्यस्य परिचयपरीक्षणम्
1. पाठ्यपुस्तके संकलित-अंशानां प्रमुखलेखकानां संक्षिप्तपरिचयः

अथवा

संस्कृतसाहित्यस्य प्रमुख काव्यानां परिचयः
3. नाट्यविषयकशब्दावलीपरिचयः

नान्दी, नेपथ्यम्, प्रस्तावना, आत्मगतम्, प्रकाशम्, प्रवेशक: जनान्तिकम् भरत वाक्य (प्रदत्तपरिभाषासु रिक्तस्थानपूर्तिमाध्यमेन / प्रदत्तनाट्यांशं पठित्वा अभिज्ञानमाध्यमेन।)

ENGLISH CORE (+1) 2025-2026

BACKGROUND

Students are expected to have acquired a reasonable degree of proficiency in English by the time they reach Class XI. The English Core course aims to enhance higher-order language skills to prepare students for diverse pathways.

For many students, the senior secondary stage is a stepping stone to university, where a high degree of English proficiency is often required. For others, it prepares them for the workplace. The Core course caters to both groups by developing language skills essential for academic study and professional communication.

OBJECTIVES

The general objectives are to:

Enable students to listen to and comprehend live and recorded oral presentations on various topics.
Build confidence and proficiency in language skills for social and academic purposes.
Encourage participation in group discussions and interviews, including making short oral presentations on given topics.
Help students understand the overall meaning and organization of texts, including the relationships between different sections.
Develop skills to identify central themes, main points, and supporting details.
Foster communicative competence across various registers of English.
Promote advanced language skills, including reasoning and drawing inferences, through meaningful activities.
Cultivate the ability for independent reflection and inquiry.
Encourage appreciation of the literary use of English and foster creative and imaginative expression.

By the end of this stage, learners will be able to:

Read and comprehend extended texts (prescribed and non-prescribed) in genres such as fiction, science fiction, drama, poetry, biography, autobiography, travel, and sports literature.
Engage in text-based writing, responding to questions or tasks based on prescribed or unseen texts.
Understand and respond to lectures, speeches, and similar presentations.
Write expository or argumentative essays (250–500 words) to explain or develop a topic or argue a case.
Compose formal and informal letters and applications for various purposes.
Produce workplace-related writing, such as minutes, memoranda, notices, summaries, reports, CVs, emails, and form-filling.

Take and make notes from reference materials and recorded talks.

LANGUAGE ITEMS

The Core course builds on language items introduced in Classes IX–X, delving deeper into their usage and functions. Special attention is given to:

Different tense forms for various types of narration (e.g., media, commentaries, reports, programs).
Passive voice in scientific and technical writing.
Converting sentences or clauses into different structures to demonstrate stylistic variations.
Modal auxiliaries, used based on semantic considerations.

METHODS AND TECHNIQUES

Teaching methods should foster self-learning and reduce dependence on the teacher. A multi-skill, learner-centered, activity-based approach is recommended, with variations as needed. Core classroom activities include:

Silent reading of prescribed or selected texts for comprehension, leading to activities like role play, dramatization, group discussions, and writing.
Independent and intelligent reading, with active interaction with texts using reference materials (e.g., dictionaries, thesauruses) when necessary.
Pre-reading activities to prepare students, with course books suggesting activities and teachers free to devise others.
Post-reading activities to reinforce learning, recognizing that texts can generate multiple interpretations.

Students should be encouraged to interpret texts creatively, engage in group and pair activities when appropriate, and participate in individual tasks. Oral activities, such as group discussions, should be promoted to enhance active interaction with texts and peers.

COURSE CONTENT

Hornbill (Textbook)

1. Prose:
    - The Portrait of a Lady – Khushwant Singh
    - We're Not Afraid to Die... If We Can All Be Together – Gordon Cook and Alan East
    - Discovering Tut: The Saga Continues – A.R. Williams
    - The Ailing Planet: The Green Movement's Role – Nani Palkhivala
    - The Adventure – Jayant Narlikar
    - Silk Road – Nick Middleton

2. Poetry:
    - A Photograph – Shirley Toulson
    - The Laburnum Top – Ted Hughes
    - The Voice of the Rain – Walt Whitman
    - Childhood – Markus Natten
    - Father to Son – Elizabeth Jennings

Snapshots (Supplementary Reader)

1. The Summer of the Beautiful White Horse – William Saroyan
2. The Address – Marga Minco
3. Mother's Day – J.B. Priestley
4. The Ghat of the Only World – Amitav Ghosh
5. Birth – A.J. Cronin
6. The Tale of Melon City – Vikram Seth

Writing Skills

1. Note-Making
2. Summarizing
3. Subtitling
4. Essay Writing
5. Letter Writing
6. Creative Writing

GEOGRAPHY (+1) 2025-2026

RATIONALE

Geography is introduced as an elective subject at the senior secondary stage. After ten years of general education, students begin this stage and encounter the rigor of the discipline for the first time. As an entry point to higher education, many students choose geography to pursue their academic interests, requiring a broader and deeper understanding of the subject. For others, geographical knowledge is valuable in daily life, serving as a medium to educate young people. Geography contributes through its content, cognitive processes, skills, and values, helping students explore, understand, and evaluate the environmental and social dimensions of the world more effectively.

Geography examines the relationship between people and their environment, encompassing studies of physical and human environments and their interactions at various scales—local, state/regional, national, and global. Students must understand the fundamental principles governing the diverse distributional patterns of physical and human features and phenomena on Earth's surface. These principles will be applied through selected case studies from India and the world. The physical and human environments of India, along with specific issues from a geographical perspective, will be explored in greater detail. Students will also be introduced to various methods used in geographical investigations.

OBJECTIVES

The geography course aims to help learners:

Familiarize themselves with the terms, key concepts, and basic principles of geography.

Identify, understand, and analyze the processes and patterns of the spatial arrangement of natural and human features and phenomena on Earth's surface.

Understand and analyze the interrelationships between physical and human environments and their impacts.

Apply geographical knowledge and methods of inquiry to new situations or problems at local, regional, national, and global levels.

Develop geographical skills related to the collection, processing, and analysis of data and information, as well as the preparation of reports, maps, and graphs, using computers where possible.

Utilize geographical knowledge to address community issues, such as environmental concerns, socio-economic challenges, and gender equality, becoming responsible and effective members of society.

COURSE STRUCTURE

PART A: FUNDAMENTALS OF PHYSICAL GEOGRAPHY

1. Geography as a Discipline
2. The Earth
3. Landforms
4. Climate
5. Water (Oceans)
6. Life on the Earth
7. Map Work

PART B: INDIA – PHYSICAL ENVIRONMENT

8. Introduction
9. Physiography
10. Climate and Vegetation
11. Natural Vegetation
12. Natural Hazards and Disasters: Causes, Consequences, and Management
13. Map Work

PRACTICAL WORK

1. Fundamentals of Maps
2. Topographic and Weather Maps

Rational

Through a focus on a series of critical historical issues and debates, the students would be introduced to a set of important historical events and processes. A discussion of these themes, it is hoped, would allow students not only to know about these events and processes, but also to discover the RATIONALE excitement of doing history.

OBJECTIVES

- Effort in these senior secondary classes would be to emphasize to students that history is a critical discipline, a process of enquiry, a way of knowing about the past, rather than just a collection of facts. The syllabus would help them understand the process through which historians write history, by choosing and assembling different types of evidence, and by reading their sources critically. They will appreciate how historians follow the trails that lead to the past, and how historical knowledge develops.

- The syllabus would also enable students to relate/compare developments in different situations, analyze connection between similar processes located in different time periods, and discover the relationship between different methods of social enquiry within different social sciences

- The syllabus in class XI is organized around some major themes in world history. The themes have been selected so as to (i) focus on some important developments in different spheres-political, social, cultural and economic, (ii) study not only the grand narratives of development urbanization, industrialization and modernization-but also to know about the processes of displacements and marginalization. Through the study of these themes students will acquire a sense of the wider historical processes as well as an idea of the specific debates around them.

- The treatment of each theme in class XI would include (a) a road picture of the theme under discussion,(b) a more detailed focus on one region of study, (c) an introduction to a critical debate associated with the issue.

UNITS

PART-1 (Section -A) : Early Societies

Introduction

Timeline I - (6MYA to 1 BCE)

Chapter-1 : Writing and City Life

PART-II (Section -B) : Empires

Introduction

Timeline II : (c. 100 BCE to 1300 CE)

Chapter-2 : An Empire Across Three Continents

Chapter-3 : Nomadic Empires

PART-III (Section -C) : Changing Traditions

Introduction

Timeline III : (c. 1300 to 1700)

Chapter-4: The Three Orders

Chapter-5: Changing Culture Traditions

PART-IV (Section -D) : Towards Modernisation

Introduction

Timeline IV : (c. 1700 to 2000)

Chapter-6 : Displacing Indigenous People

Chapter-7 : Paths to Modernisation

Map Work

.

Home Science
Class: 11 (Vidyavinod Part I)

First Paper

1. **Form of Life - Overview** -
2. **Tissues, Organs, and Systems** - Skeletal System, Circulatory System, Lymphatic System, Digestive System, Excretory System, Nervous System, Reproductive System. - 14 marks
3. **Sense Organs, Glands, and Hormones** –
4. **Reference Book**: Human Body and Health - Rani Tandon

Second Paper

Personal Health, Home Cleanliness, City Sewage and Garbage Disposal System, Sewage System

1. **Water and Food**
2. **Personal Responsibility**
3. **Infectious Diseases**
4. **Slums or Tenements, Open Spaces and Playgrounds in Cities**
5. **Health Regulations and Organization of Health Education**

Reference Book: Health Environment - Dr. Mukundswarup Varma

Practical Exam

Total Marks: 40

1. **Cooking**: Preparing vegetables, pickles, jams, jellies, sauces, marmalade, or any sweet dish. –
2. **Sewing**: General knowledge of sewing machine, its parts, and functioning, ability to perform basic repairs, knowledge of finishing, stitching, and attaching buttons, etc.

POLITICAL SCIENCE (+1) 2025-26

RATIONALE

At the senior secondary level, students opting for Political Science are introduced to the diverse concerns of political scientists. The curriculum enables engagement with political processes and provides historical context for the present. It covers streams like political theory, Indian politics, and international politics, while touching on comparative politics and public administration. The focus is on laying foundations for undergraduate studies without relying on complex jargon.

OBJECTIVES

Indian Constitution at Work

Understand the historical processes and circumstances of the Constitution's drafting.
Familiarize students with the visions of the Constitution's makers.
Identify key constitutional features and compare them globally.
Analyze how constitutional provisions function in real political life.

Political Theory

Develop logical reasoning and abstraction skills.
Foster respect for diverse viewpoints.
Introduce political thinkers in relation to concepts and everyday life.
Encourage participation in current political issues and analysis of inherited prejudices.

Politics in India After Independence

Familiarize students with key post-independence political events and figures.
Build skills for political analysis through recent history.
Link macro processes to micro situations and personal experiences.
Promote a historical perspective on contemporary India.

Contemporary World Politics

Expand students' horizons beyond India to understand the global political map.
Familiarize them with key post-Cold War events and processes.
Highlight how global events shape everyday life.
Strengthen political analysis through a historical lens.

Courses of Study

PART A: INDIAN CONSTITUTION AT WORK

1. **Constitution: Why and How?**
    - Need for a constitution, its functions, makers, impact of partition, and sources.

2. **Rights in the Indian Constitution**
    - Need for a bill of rights, fundamental rights, removal of property rights, judicial interpretations, civil liberties, and fundamental duties.
3. **Election and Representation**
    - Methods of representation, first-past-the-post system, reserved seats, and Election Commission's role.
4. **Executive**
    - Parliamentary system, constitutional head, election of PM/CM, and powers of President, PM, and Governor.
5. **Legislature**
    - Bicameral parliament, powers of Rajya Sabha/Lok Sabha, law-making, executive accountability, and anti-defection measures.
6. **Judiciary**
    - Rule of law, judicial independence, judge appointments, powers of Supreme/High Courts, and public interest jurisdiction.
7. **Federalism**
    - Federalism's role in diversity, India's federal structure, central authority, and special provisions for states.
8. **Local Governments**
    - Decentralization, constitutional status, and features of rural/urban local governments.
9. **Constitution as a Living Document**
    - Constitutional changes, ongoing debates, and democracy's impact.
10. **The Philosophy of the Constitution**
    - Core provisions, underlying vision, and influence of modern Indian political thought.

PART B: POLITICAL THEORY

11. **Political Theory: An Introduction**

    Nature of politics, political arguments, and need for political theory.

12. **Freedom**
    - Definition, constraints, and limits on individual liberty.
13. **Equality**
    - Differences vs. inequality, forms of inequality, and achieving equality.
14. **Social Justice**
    - Justice, fairness, equality, forms of injustice, and securing justice.
15. **Rights**
    - Rights vs. claims, types of rights, resolving conflicts, and state's role.
16. **Citizenship**
    - Definition, inclusion/exclusion, new claims, and global citizenship.
17. **Nationalism**
    - Nation boundaries, nation-state relations, citizen demands, and self-determination.
18. **Secularism**
    - Definition, domains, secular state, and its relevance to India.

PSYCHOLOGY (+1) 2025-26

RATIONALE

Psychology is introduced as an elective subject at the higher secondary stage of school education. As a discipline, Psychology specializes in the study of experiences, behaviors, and mental processes of human beings within a socio-cultural and socio-historical context. This course aims to introduce learners to the basic ideas, principles, and methods in psychology to help them better understand themselves and their social world. The emphasis is on creating interest and exposure to develop students' knowledge base and understanding.

The course highlights psychological knowledge and practices rooted in context, emphasizing the complexity of behavioral processes and discouraging simplistic cause-effect thinking.

It encourages critical reasoning, helping students appreciate cultural factors in behavior and how biology and experience shape it.

The course balances subjectivity with an appreciation for multiple worldviews.

Teaching-learning processes should involve students actively, using case studies, narratives, experiential exercises, and analysis of everyday experiences to evolve their understanding.

The syllabus update responds to feedback from teachers and students, addressing concerns like curriculum load, interdisciplinary approaches, gender parity, issues of marginalized groups, peace, environmental concerns, and citizenship values.

OBJECTIVES

1. Develop appreciation for human behavior and the human mind in the context of learners' immediate society and environment.
2. Foster an understanding of the multidisciplinary nature of psychological knowledge and its applications in various aspects of life.
3. Enable learners to become perceptive, socially aware, and self-reflective.
4. Facilitate students' quest for personal growth and effectiveness, encouraging them to become responsive and responsible citizens.

COURSES OF STUDY

FOUNDATIONS OF PSYCHOLOGY

I. What is Psychology?

II. Methods of Enquiry in Psychology

III. Human Development

IV. Sensory, Attentional, and Perceptual Processes

V. Learning

VI. Human Memory

VII. Thinking

VIII. Motivation and Emotion

PRACTICALS (PROJECTS, EXPERIMENTS, SMALL STUDIES)

Students are required to undertake one project and conduct three practicals. The project involves using different methods of enquiry and related skills. Practicals include experiments and small studies related to topics covered in the course (e.g., Human Development, Learning, Memory, Motivation, Perception, Attention).

Components:

I. Reporting file including project work

II. Viva Voce

III. Two experiments

SOCIOLOGY (+1) 2025-26

RATIONALE

Sociology, introduced as an elective at the higher secondary stage, helps learners reflect on everyday life and develop a constructive attitude toward a changing society. The curriculum equips students with concepts and theoretical skills to understand the dynamics of human behavior in all its complexities and manifestations. It addresses questions arising in students' minds about the social world, fostering an analytical approach to social structures for meaningful participation in social change. The syllabus supports interactive learning through exercises, project work, and innovative teaching methods.

Sociology studies society: A child's familiarity with their society makes sociology a dual experience—studying familiar institutions like family, kinship, class, caste, tribe, religion, and region. India's horizontally and vertically varied society is both a strength and a site for interrogation.

Intellectual legacy: Sociology's plural perspective encourages defamiliarization, unlearning, and questioning the given, enabling understanding of other cultures and reevaluation of one's own.

Methodological richness: Sociology balances interpretative methods (acknowledging subjectivity) with causal explanations, using large-scale surveys and rich ethnographic traditions. Indian sociology bridges distinctions between sociology and social anthropology, offering opportunities to explore fieldwork's excitement and theoretical significance.

Dual perspective: Sociology provides both a bird's-eye view and a worm's-eye view, especially relevant in today's local-global interplay.

Gender as fundamental: Gender is an organizing principle integrated across all chapters, not treated as an add-on.

Child-centric approach: Chapters connect children's lived realities to social structures and processes.

Exploratory learning: Sociological concepts are presented as humanly constructed and open to questioning, making learning a process of discovery.

OBJECTIVES

1. Relate classroom teaching to the outside environment.
2. Introduce basic sociological concepts to observe and interpret social life.
3. Foster awareness of the complexity of social processes.
4. Appreciate diversity in Indian and global society.
5. Build capacity to understand and analyze changes in contemporary Indian society.

COURSES OF STUDY

INTRODUCING SOCIOLOGY

I. Sociology and Society

II. Terms, Concepts, and Their Use in Sociology

III. Understanding Social Institutions

IV. Culture and Socialisation

V. Doing Sociology: Research Methods

UNDERSTANDING SOCIETY

VI. Social Structure, Stratification, and Social Processes in Society

VII. Social Change and Social Order in Rural and Urban Society

VIII. Environment and Society

IX. Introducing Western Sociologists

X. Indian Sociologists

ACCOUNTANCY (+1) 2025-26

RATIONALE

The Accountancy course is introduced at the +1 stage of Senior Secondary education, as formal commerce education begins after ten years of schooling. With the rapidly changing economic scenario and business environment in continuous flux, elementary business education, with accountancy as the language of business and a source of financial information, has secured a vital place at this stage. The syllabus provides students with a firm foundation in basic accounting principles and methodologies, while acquainting them with changes in the presentation and analysis of accounting information, considering developments in accounting standards and the use of computers.

This course emphasizes developing a basic understanding of the nature and purpose of accounting information and its use in business operations. It aims to foster logical reasoning, careful analysis, and considered judgment among students. As an information system, accounting aids in providing financial information. At Class XI, the focus is on basic concepts and processes of accounting, leading to the preparation of accounts for a sole proprietorship firm. With computerized accounting gaining popularity due to increased awareness of computer use in business, students are compulsorily exposed to basic knowledge about computers and their application in accounting.

OBJECTIVES

Familiarize students with accounting as an information system.
Acquaint students with basic concepts of accounting and accounting standards.
Develop skills in using the accounting equation to process business transactions.
Foster an understanding of recording business transactions and preparing financial statements.
Enable students to account for the reconstitution of partnership firms.
Equip students to understand and analyze financial statements.
Familiarize students with the fundamentals of computerized accounting systems.

COURSE STRUCTURE

PART A: FINANCIAL ACCOUNTING I

1. Introduction to Accounting
2. Theory Base of Accounting
3. Recording of Business Transactions-I
4. Recording of Business Transactions-II
5. Bank Reconciliation Statement
6. Trial Balance and Rectification of Errors
7. Depreciation, Provisions, and Reserves

PART B: FINANCIAL ACCOUNTING II
8. Financial Statements-I
9. Financial Statements-II

DETAILED SYLLABUS OF 10+1 ACCOUNTANCY
Part A: Financial Accounting-I

Unit-I: Introduction to Accounting

Concept, features, objectives, advantages, and limitations of the accounting system.
Users of accounting information: internal and external users.
Features of qualitative accounting information.
Role of the accounting system in business.
Basic accounting terms: transactions, capital, drawings, assets, liabilities, revenue, expenditure, stock, debtors, creditors, voucher, discount.

Unit-II: Theory Base of Accounting

Accounting assumptions, concepts, principles, and conventions:
- Business entity concept, money measurement concept, going concern concept, cost concept, revenue concept, matching concept, principle of full disclosure, principle of consistency, principle of conservatism, principle of materiality.

Accounting standards: applicability, features, and importance.
Indian Accounting Standards.

Unit-III: Recording of Business Transactions-I

Accounting process and books of original entry.
Double-entry system: voucher, sources of transactions, accounting equation (meaning and preparation), rules of debit and credit.
Journal: meaning, features, and importance.
Ledger: meaning, utility, and posting from journal to ledger.

Unit-IV: Recording of Business Transactions-II

Special-purpose books: cash book (meaning and types), petty cash book, purchases book, sales book, purchases return book, sales return book, journal proper.
Other subsidiary books and ledger: meaning and utility.

Unit-V: Bank Reconciliation Statement

Meaning, need, and preparation of bank reconciliation statement.
Causes of differences between cash book and passbook.

Unit-VI: Trial Balance and Rectification of Errors

Trial balance: meaning, objectives, preparation, and methods (balance method, total amount method, balance and total method).
Errors: concept, types (errors affecting trial balance and those not affecting trial balance), detection, and rectification.
One-sided and two-sided errors.
Suspense account: meaning and preparation.

Unit-VII: Depreciation, Provisions, and Reserves

Depreciation: meaning, concept, need, causes, methods (straight-line method, written-down value method, excluding changes in method), charging depreciation to asset accounts, creating provisions for depreciation/accumulated depreciation, treatment of asset disposal.
Reserves: concept, features, importance, types (revenue reserves, capital reserves, general reserves, specific reserves, secret reserves).
Provisions: meaning, need, types (provision for doubtful debts, provision for discount on debtors and creditors, provision for depreciation, provision for taxation).
Difference between reserves and provisions.

Part B: Financial Accounting-II

Unit-VIII: Financial Statements-I

Concept, types, and uses of financial statements.
Trading account, profit and loss account, balance sheet.
Difference between capital expenditure and revenue expenditure.
Presentation of financial statements: operating profit (EBIT), vertical and horizontal forms.
Preparation of financial statements without adjustments.

Unit-IX: Financial Statements-II

Meaning and need for adjustments in preparing financial statements.
Adjustments: closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors and creditors, commission to manager, interest on capital.
Preparation of trading account, profit and loss account, and balance sheet with adjustments.

****BUSINESS STUDIES (+1) 2025-2026****

RATIONALE

The courses in Business Studies and Accountancy are introduced at the +2 stage of Higher Secondary Education as formal commerce education is provided after the first ten years of schooling. Therefore, it becomes necessary that instructions in these subjects are given in such a manner that students have a good understanding of the principles and practices bearing on business (trade and industry) as well as their relationship with society.

Business is a dynamic process that brings together technology, natural resources, and human initiative in a constantly changing global environment. To understand the framework in which a business operates, a detailed study of the organization and management of business processes and its interaction with the environment is required. Information Technology is becoming a part of business operations in more and more organizations. Computerized systems are fast replacing other systems. E-business and other related concepts are gaining momentum, which need to be emphasized in the curriculum.

The Course in Business Studies will prepare students to analyze, manage, evaluate, and respond to changes that affect business. It provides a way of looking at and interacting with the busin ess environment. It recognizes that business influences and is influenced by social, political, legal, and economic forces. It allows students to appreciate that business is an integral component of society and develops an understanding of many social and ethical issues.

Therefore, to acquire basic knowledge of the business world, a course in Business Studies is useful. It also informs students of a range of study and work options and bridges the gap between school and work.

OBJECTIVES

- To develop in students an understanding of the processes of business and its environment.
- To acquaint students with the dynamic nature and interdependent aspects of business.
- To develop an interest in the theory and practice of business, trade, and industry.
- To familiarize students with the theoretical foundations of organizing, managing, and handling operations of a business firm.
- To help students appreciate the economic and social significance of business activity and the social costs and benefits arising therefrom.
- To acquaint students with the practice of managing the operations and resources of business.
- To prepare students to function more effectively and responsibly as consumers, employers, employees, and citizens.
- To help students transition from school to higher education or the world of work, including self-employment.
- To develop in students a business attitude and skills to be precise and articulate.

COURSE CONTENT

PART A: FOUNDATIONS OF BUSINESS

- Chapter 1: Business, Trade, and Commerce
- Chapter 2: Forms of Business Organization
- Chapter 3: Private, Public, and Global Enterprises
- Chapter 4: Business Services
- Chapter 5: Emerging Modes of Business
- Chapter 6: Social Responsibilities

PART B: CORPORATE ORGANIZATION, FINANCE, AND TRADE

- Chapter 7: Formation of a Company

- Chapter 8: Sources of Business Finance
- Chapter 9: MSME and Business Entrepreneurship
- Chapter 10: Internal Trade
- Chapter 11: International Business

PART C: PROJECT WORK (PRACTICAL)

- Chapter 12: Record of Project and Viva

PART A: FOUNDATIONS OF BUSINESS

Unit 1: Business, Trade, and Commerce

- Concept and characteristics of business.
- Business, profession, and employment—distinctive features.
- Objectives of business—economic and social role of profit in business.
- Classification of business activities: Industry and Commerce.
- Industry—types: primary, secondary, tertiary.
- Commerce: Trade and Auxiliaries.
- Business risk—nature and causes.

Unit 2: Forms of Business Organizations

- Sole Proprietorship and Joint Hindu Family Business—meaning, features, merits, and limitations.
- Partnership—meaning, types, registration, merits, limitations, types of partners.
- Cooperative Societies—types, merits, and limitations.
- Company: Private Ltd., Public Ltd.—merits, limitations.
- Choice of form of business organization.
- Starting a business—basic factors.

Unit 3: Private, Public, and Global Enterprises

- Private sector and public sector.
- Forms of organizing public sector enterprises:
- Departmental Undertaking
- Statutory Corporation
- Government Company
- Changing role of the public sector.
- Global Enterprises (Multinational Companies)—meaning and features.

Unit 4: Business Services

- Nature and types of business services: Banking, Insurance, Transportation, Warehousing, Communication.
- Banking—types of banks, functions of commercial banks, e-banking.
- Insurance—principles, types: life, fire, and marine.
- Postal and telecom services.

Unit 5: Emerging Modes of Business

- E-Business—meaning, scope, and benefits; resources required for successful e-business implementation; online transactions; payment mechanisms; security and safety of business transactions.

Unit 6: Social Responsibility

- Concept of social responsibility.
- Case for social responsibility.
- Responsibility toward owners, investors, employees, consumers, government, community, and the public in general.
- Business and environmental protection.
- Business ethics—concept and elements.

PART B: CORPORATE ORGANIZATION, FINANCE, AND TRADE

Unit 7: Formation of a Company
- Stages in the formation of a company:
- Promotion
- Incorporation
- Commencement of business

Unit 8: Sources of Business Finance
- Nature and significance.
- Owner's funds and borrowed funds.
- Sources of raising finance:
- Equity and preference shares
- Debentures and bonds
- Retained profits
- Public deposits
- Loans from financial institutions
- Loans from commercial banks
- Trade credit

Unit 9: MSME and Business Entrepreneurship
- Small-scale industry: Tiny sector, cottage, and rural industry.
- Problems of small businesses in India.
- Government assistance and special schemes for industries in rural, backward, and hilly areas.

Unit 10: Internal Trade
- Meaning and types of internal trade: wholesale and retail.
- Services of a wholesaler and a retailer.
- Types of retail trade:
- Itinerant retailers and fixed shops
- Departmental stores, supermarkets, malls, chain stores, mail-order business, consumer's cooperative stores
- Automatic vending machines
- Role of Chambers of Commerce and Industry in the promotion of internal trade.

Unit 11: International Business
- Nature and importance.
- Ways of entering international business.
- Export-import procedures and documentation.

PART C: PROJECT WORK

Unit 12: Project Work (Practical)

SUGGESTIVE/ILLUSTRATIVE PROJECTS

Any one of the following:

1. Find out from local sample business unit(s) the various objectives they pursue.
2. Problems of setting up and running business units.
3. Enquiry into the ethics of running businesses through questionnaires.
4. Survey of the quality of bank services in the local branch office.
5. Study of postal and courier mail services.
6. Availability and use of agency services, advertising, packaging, and investments in savings schemes.
7. Survey of the popularity of credit cards issued by different banks.
8. Study the profile of a sole trader/partnership, commenting on the nature and working of the business.
9. Study of a Joint Hindu Family Business.
10. Study of the working of any cooperative society.
11. Study of a small business unit regarding its source of finance.
12. Nature of different traders (e.g., hawkers and peddlers in a specific locality) in terms of goods, capital investment, and turnover.
13. Study of a weekly bazaar in a locality.
14. Study of a franchise retail store.
15. Study of export/import of any article.
16. Problems of women entrepreneurs in business.
17. Waste/garbage disposal.
18. Study of pavement trade.
19. Prepare a scrapbook and collect articles on the changing role of the public sector and other topics related to the syllabus.

Syllabus: Computer Science (+1) 2025-2026

Subject: Computer Science

UNIT I: Fundamentals of Computer

Computer and its applications.

Block diagram of a computer.
Generations of computers.
Concept of memory (primary and secondary memory).
Input and output devices.
Concept of software (system and application software).
Number systems (binary, decimal).
Conversion between binary and decimal number systems.

UNIT II: Digital Network Essentials

Internet fundamentals.

Information technology and the internet.
Web browsing.
Multimedia on the web.
Web search engines.
Email.
Internet security.
Need for computer networks.
Data communication fundamentals:
- Analog and digital signal transmission.
- Transmission media:
  - Guided media: twisted pair, coaxial cable, optical fiber.
  - Unguided media: radio waves, microwaves, satellite, Wi-Fi.

Network classification: LAN, MAN, WAN, PAN.

UNIT III: Desktop Publishing (Elementary)

Concept of desktop publishing (DTP).

Applications of DTP.
Comparison of DTP with word processing.
Introduction to PageMaker.
Creating a new publication using PageMaker.
Saving a file in PageMaker.
Tools in PageMaker for designing pages.
Master pages, headers, footers.
Printing options for a publication.
Hands-on practice with PageMaker.

UNIT IV: Digital Image Editing

Introduction to Photoshop.

Classification of images: bitmap, vector images.
Image types, size, and resolution.
Creating a digital collage.
Working with files, rulers, and guides.
Changing the print size of an image.
Toolbox functionalities.
Working with colors.
Selections, shapes, and painting:

- Softening and refining selections.
- Saving, loading, deleting, moving, copying, pasting, and extracting selections.

Drawing with the pen tool.
Creating brushes, filling, and stroking selections and layers.
Transforming and typing.
Rotating, cropping, and flipping images.

UNIT V: HTML Fundamentals

Introduction to web page design using HTML.
Creating and saving an HTML document.
Elements in HTML: container and empty elements.
Designing web pages using the following elements:

- HTML, HEAD, TITLE, BODY (attributes: BACKGROUND, BGCOLOR, TEXT, LINK, ALINK, VLINK, LEFTMARGIN, TOPMARGIN).
- FONT (attributes: COLOR, SIZE, FACE).
- BASEFONT (attributes: COLOR, SIZE, FACE).
- CENTER, BR (Break), HR (Horizontal Rule, attributes: SIZE, WIDTH, ALIGN, NOSHADE, COLOR).
- Comments.
- H1–H6 (Headings), P (Paragraph), B (Bold), I (Italics), U (Underline).
- UL & OL (Unordered List & Ordered List, attributes: TYPE, START), LI (List Item).
- IMG (Image, attributes: SRC, WIDTH, HEIGHT, ALT, ALIGN).

Internal and external linking between web pages.
Significance of linking using the A (Anchor) element (attributes: NAME, HREF, TITLE, ALT).
Inserting tables in HTML (TD, TH, TR).

UNIT VI: Advanced Web Publishing (JavaScript)
Networking fundamentals:

- Introduction to networking.
- Internetworking servers.

Need for web publishing.
Web languages.
JavaScript introduction and fundamentals:

- Features of the JavaScript language for client-side scripting.
- Variables, data types, operators.
- Writing JavaScript programs.

- Control program flow (conditional and looping statements).
- Developing interactive forms and validation.
- Popular applications of JavaScript.
- Cookies and JavaScript security.

UNIT VII: Multimedia Applications (Sound & Video Editing)
Sound Editing:

- Nature of sound.
- Microphones: types, characteristics, and applications in film and television production.
- Soundtrack and sound editing.
- Sound mixing console.
- Sound editing and language dubbing.

Video Editing:

- Editing types: linear and non-linear editing.
- Role of the editor and their relationship with the director.
- Video cassette recorder.
- Digital editing: computer as a tool using software (e.g., Windows Movie Maker).

UNIT VIII: Project Work

MATHEMATICS (+1) (2025-2026)

The syllabus in the subject of Mathematics has undergone changes from time to time in accordance with growth of the subject and emerging needs of society. Senior Secondary stage is a launching stage from where the students go either for higher academic education in Mathematics or for professional courses like engineering, physical and Bioscience, commerce or computer applications. The present revised syllabus has been designed in accordance with National Curriculum Frame Work 2005 and as per guidelines given in Focus Group on Teaching of Mathematics 2005 which is to meet the emerging needs of all categories of students. Motivating the topics from real life situations and other subject areas, greater emphasis has been laid on application of various concepts.

OBJECTIVES

The broad objectives of teaching Mathematics at senior school stage intend to help the pupil

to acquire knowledge and critical understanding particularly by way of motivation of visualization of basic facts, concepts, terms, principles and symbols and mastery of underlying processes and skills

to feel the flow of reasons while proving a result or solving a problem

to apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method

to develop positive attitude to think analyze and articulate logically

to develop interest in the subject by participating in related competitions.

to acquaint students with different aspects of mathematics used in daily life

to develop awareness of the for national integration, protection of environment observance of small family norms, removal of social barriers, elimination of sex biases

to develop reverence and respect towards great Mathematicians for their contribution to the field of Mathematics

COURSE STRUCTURE

1. Sets
2. Relations and Functions
3. Trigonometric Functions
4. Complex Numbers and Quadratic Equations
5. Linear Inequalities
6. Permutations and Combinations
7. Binomial Theorem
8. Sequences and Series
9. Straight Lines
10. Conic Sections
11. Introduction to Three Dimensional Geometry
12. Limits and Derivatives
13. Statistics
14. Probability

Unit-I : Sets and Functions

1: Sets

Introduction, Sets and their representations. Empty set Finite and infinite sets, Equal sets, Subsets, Subsets of the set of real numbers especially intervals (with notations). Universal set, Venn diagrams, operations on sets Union and intersection of sets. Difference of sets: Complement of a set.

2: Relations and Functions

Introduction, Cartesian product of sets, Ordered pairs, Relation, Domain, Co Domain, Range, Function, Real Valued Function, Some Function and their graphs, Identity function, Constant Function, Polynomial Functions, Rational Functions, Modulus Functions, Signum Function, Greatest Integer Functions, Algebra of real Function.

3. Trigonometric Functions:

Introduction, Angles, Degree Measure, Radian Measure and their conversion, Notational Convention, Trigonometric Function and Sign of Trigonometric Functions, Domain and range of Trigonometric Functions, Trigonometric Functions of sum and difference of two angels.

Unit -II : Algebra

1. Complex Numbers

Introduction, complex numbers, Algebra of Complex Numbers, Power of i, the Square root of a negative real number, Complex number identities, the modulus and the conjugate of complex numbers, Argand Plane and Polar Representation (definition and its representation only)

2. Linear Inequalities :

Introduction and definition of inequalities, Algebraic solutions of linear inequalities in one variable and their graphical representation.

3. Permutations & Combinations :

Fundamental principle of counting. Permutations, Factorial notation, derivation of formulae, combinations and their Practical Problems.

4. Binomial Theorem

Introduction, statement and proof of the binomial theorem for positive integral indices Pascal's triangle, simple applications,

5. Sequence and Series:

Introduction, Sequence and Series. Geometric progression (GP) general term of a GP., sum of n terms of a GP, geometric mean (GM) relation between A.M. and G.M.

UNIT-III : COORDINATE GEOMETRY

1. Straight Lines :

Brief recall of 2D from earlier classes, Slope of a line, angle between two lines. Various forms of the equations of a line, point slope form, slope-intercept form, intercepts form. Distance of a point from a line and Distance between two parallel line.

2. Conic Sections :

Sections of cone, circles, ellipse, parabola, hyperbola, a point, a straight line and pair of intersecting lines as a degenerated case of a conic section, Standard equations and simple properties of parabola, ellipse and hyperbola, Standard equation of a circle.

3. Introduction to Three-dimensional Geometry

Coordinate axes and coordinate planes in three dimensions, Coordinates of a point in space, Distance between two points.

UNIT-IV: CALCULUS

1. Limits and Derivatives :

Institutive idea of Derivative, Introduced as rate of change, Algebra of limits, limits of polynomials rational Function, limits of trigonometric Function, Derivatives, First Principle of Derivative, Algebra of Derivative of Functions, Derivatives of Polynomial and trigonometric functions, Limit involving exponential and logarithmic function.

UNIT-V: STATISTICS & PROBABILITY

1. Statistics :

Introduction, Measures of dispersion, Mean deviation of grouped/ungrouped data, about mean, and about median, Shortcut method for calculating for mean deviation about mean and about median, variance and standard deviation.

2. Probability:

Event, occurrence of events and its types, algebra of events mutually exclusive events, exhaustive event, Axiomatic approach to probability.

BIOLOGY (+1) (2025-2026)

The present syllabus reinforces the ideas introduced in the lower classes while students learn new concepts and gain exposure to contemporary areas of the subject. The syllabus emphasizes the underlying principles common to both animals and plants, as well as highlighting the relationship of biology with other areas of knowledge. The format of the syllabus ensures a simple, clear, and consequential flow of concepts without any jarring jumps. It also stresses the connection of biology to real-life problems and the use of biological discoveries/innovations in everyday life, including environment, nature, medicine, health, and agriculture. The updated syllabus focuses on reducing the curriculum load while ensuring ample opportunities for learning and appreciating the basic concepts of the subject within its framework.

The prescribed syllabus is expected to:

- Promote understanding of basic principles of biology.
- Facilitate learning of emerging knowledge and its relevance to individuals and society.
- Encourage a rational/scientific attitude toward issues related to population, environment, and development.
- Enhance awareness about environmental issues, problems, and appropriate solutions.
- Create awareness among learners about variations among living organisms, fostering respect for diversity and appreciation that the most complex biological phenomena are built on essentially simple processes.

It is expected that students will gain exposure to various branches of biology in a more contextual and engaging manner as they study its various units.

****COURSE STRUCTURE**** ****Time: 3 Hours (Theory)**** ****Max. Marks: 70****

UNIT I: DIVERSITY IN THE LIVING WORLD

- - Chapter 1: The Living World
- - Chapter 2: Biological Classification
- - Chapter 3: Plant Kingdom
- - Chapter 4: Animal Kingdom

UNIT II: STRUCTURAL ORGANISATION IN PLANTS AND ANIMALS

- Chapter 5: Morphology of Flowering Plants
- Chapter 6: Anatomy of Flowering Plants
- Chapter 7: Structural Organisation in Animals

UNIT III: CELL: STRUCTURE AND FUNCTIONS

- Chapter 8: Cell: The Unit of Life
- Chapter 9: Biomolecules
- Chapter 10: Cell Cycle and Cell Division

UNIT IV: PLANT PHYSIOLOGY

- Chapter 11: Photosynthesis in Higher Plants
- Chapter 12: Respiration in Plants
- Chapter 13: Plant Growth and Development

UNIT V: HUMAN PHYSIOLOGY

- Chapter 14: Breathing and Exchange of Gases
- Chapter 15: Body Fluids and Circulation
- Chapter 16: Excretory Products and Their Elimination
- Chapter 17: Locomotion and Movement
- Chapter 18: Neural Control and Coordination
- Chapter 19: Chemical Coordination and Integration

PRACTICALS **Time: 3 Hours** **Marks: 30**

1. Experiments and Spotting
2. Record of one investigatory project and viva based on the project
3. Class record and viva based on experiments

A. LIST OF EXPERIMENTS

- Study and describe three common flowering plants (Solanaceae, Fabaceae, and Liliaceae).
- Preparation and study of T.S. of dicot and monocot roots and stems (normal).
- Study of osmosis by potato osmometer.
- Study of plasmolysis in epidermal peels (e.g., Rhoeo leaves).
- Study of the distribution of stomata on the upper and lower surfaces of leaves.
- Comparative study of the rates of transpiration on the upper and lower surfaces of leaves.
- Test for the presence of sugar, starch, proteins, and fats. Detect them in suitable plant and animal materials.
- Separate plant pigments through paper chromatography.
- Study the rate of respiration in flower buds/leaf tissue and germinating seeds.
- Study the effect of different temperatures on the activity of salivary amylase on starch.
- Test for the presence of urea in urine.
- Detect the presence of sugar in urine/blood samples.
- Detect the presence of albumin in urine.
- Detect the presence of bile salts in urine.

B. STUDY/OBSERVATION OF THE FOLLOWING (SPOTTING)

1. Study parts of a compound microscope.
2. Study of specimens and identification with reasons: Bacteria, Oscillatoria, Spirogyra, Rhizopus, mushroom, yeast, liverwort, moss, fern, Pinus, one monocotyledon, one dicotyledon, and one lichen.
3. Study of specimens and identification with reasons: Amoeba, Hydra, liver fluke, Ascaris, leech, earthworm, prawn, silkworm, honeybee, snail, starfish, shark, Rohu, frog, lizard, pigeon, and rabbit.
4. Study of **of tissues and diversity in shapes and sizes of plant and animal cells (e.g., palisade cells, guard cells, parenchyma, collenchyma, sclerenchyma, xylem, phloem, squamous epithelium, muscle fibers, and mammalian blood smear) through temporary/permanent slides.
5. Study of mitosis in onion root tip cells and animal cells (grasshopper) from permanent slides.
6. Study of different modifications in roots, stems, and leaves.
7. Study and identify different types of inflorescences.
8. Study of imbibition in seeds/raisins.
9. Observation and comments on the experimental setup for:
   (a) Anaerobic respiration
   (b) Phototropism
   (c) Apical bud removal
   (d) Suction due to transpiration
10. Study of the human skeleton and different types of joints.
11. Study of the external morphology of earthworm, cockroach, and frog through models.

CHEMISTRY (+1) 2025-2026

RATIONALE

Higher Secondary is a critical stage of school education, as specialized, discipline-based, content-oriented courses are introduced. Students reach this stage after ten years of general education and opt for Chemistry to pursue careers in basic sciences or professional courses such as medicine, engineering, technology, and applied areas of science and technology at the tertiary level. Therefore, learners need a strong conceptual background in Chemistry to meet the challenges of academic and professional courses after the Higher Secondary stage.

The updated curriculum is based on a disciplinary approach with rigor and depth, ensuring the syllabus is not overly heavy while remaining comparable to international standards. The field of Chemistry has undergone significant changes over the past decade, with new areas such as synthetic materials, biomolecules, natural resources, and industrial chemistry gaining prominence. These deserve to be integral parts of the Chemistry syllabus at the senior secondary stage. At the international level, new formulations, nomenclature of elements and compounds, symbols, and units of physical quantities, as defined by scientific bodies like IUPAC and CGPM, are of immense importance and have been incorporated into the revised syllabus. Greater emphasis has been placed on using new nomenclature, symbols, and formulations, teaching fundamental concepts, applying chemistry to industry and technology, logically sequencing units, and removing obsolete content and repetition.

OBJECTIVES

- The broad objectives of teaching Chemistry at the Senior Secondary stage are to help learners:
- Understand basic facts and concepts in Chemistry while retaining the excitement of the subject.
- Become capable of studying Chemistry in academic and professional courses (e.g., medicine, engineering, technology) at the tertiary level.
- Explore emerging areas of Chemistry and understand their relevance to future studies and applications in chemical sciences and technology.
- Address challenges related to health, nutrition, environment, population, weather, industries, and agriculture.
- Develop problem-solving skills.
- Understand processes used in industries and their technological applications.
- Recognize the interface of Chemistry with other disciplines, such as Physics, Biology, Geology, and Engineering.
- Become familiar with different aspects of Chemistry used in daily life.
- Develop an interest in studying Chemistry as a discipline.

COURSE STRUCTURE: THEORY

Unit No.	Title
- Unit I	Some Basic Concepts of Chemistry
- Unit II	Structure of Atom
- Unit III	Classification of Elements and Periodicity in Properties
- Unit IV	Chemical Bonding and Molecular Structure
- Unit V	Thermodynamics
- Unit VI	Equilibrium
- Unit VII	Redox Reactions
- Unit VIII	Organic Chemistry: Some Basic Principles and Techniques
- Unit IX	Hydrocarbons

PRACTICALS

EVALUATION SCHEME FOR EXAMINATION |
Component | Marks

Volumetric Analysis

Salt Analysis

Content-Based Experiment

Class Record and Viva

Investigatory Project

PRACTICAL SYLLABUS

A. Basic Laboratory Techniques

1. Cutting a glass tube and glass rod.
2. Bending a glass tube.
3. Drawing out a glass jet.
4. Boring a cork.

B. Characterization and Purification of Chemical Substances

1. Determination of the melting point of an organic compound.
2. Determination of the boiling point of an organic compound.
3. Crystallization of an impure sample of any one of the following: alum, copper sulphate, benzoic acid.

C. Experiments Related to pH Change

1. Any one of the following experiments:
   - Determination of pH of solutions (e.g., fruit juices, known and varied concentrations of acids, bases, and salts) using pH paper or universal indicator.
   - Comparison of pH of solutions of strong and weak acids of the same concentration.
   - Study of pH change during the titration of a strong base using a universal indicator.
2. Study of pH change by the common-ion effect in weak acids and weak bases.

D. Chemical Equilibrium

One of the following experiments:

- Study the shift in equilibrium between ferric ions and thiocyanate ions by increasing or decreasing the concentration of either ion.
- Study the shift in equilibrium between $[Co(H_2O)_6]^{2+}$ and chloride ions by changing the concentration of either ion.

E. Quantitative Estimation

1. Using a chemical balance.
2. Preparation of a standard solution of oxalic acid.
3. Determination of the strength of a given solution of sodium hydroxide by titrating it against a standard solution of oxalic acid.
4. Preparation of a standard solution of sodium carbonate.
5. Determination of the strength of a given solution of hydrochloric acid by titrating it against a standard sodium carbonate solution.

F. Qualitative Analysis

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

- **Cations**: Pb^{2+}, Cu^{2+}, As^{3+}, Al^{3+}, Fe^{3+}, Mn^{2+}, Zn^{2+}, Co^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+}, NH_4^+
- **Anions**: CO_3^{2-}, S^{2-}, SO_3^{2-}, NO_2^-, NO_3^-, Cl^-, Br^-, I^-, PO_4^{3-}, $C_2O_4^{2-}$, CH_3COO^-
- **Note**: Insoluble salts excluded.

G. Detection of Elements in Organic Compounds
- Detection of nitrogen, sulphur, chlorine, bromine, and iodine in an organic compound.

PROJECT
Scientific investigations involving laboratory testing and collecting information from other sources.

Suggested Projects:

1. Checking bacterial contamination in drinking water by testing for sulphide ions.
2. Studying methods of water purification.
3. Testing drinking water for hardness, iron, fluoride, chloride, etc., based on regional variations, and studying causes of levels exceeding permissible limits (if any).
4. Investigating the foaming capacity of different washing soaps and the effect of adding sodium carbonate.
5. Studying the acidity of different samples of tea leaves.
6. Determining the rate of evaporation of different liquids.
7. Studying the effect of acids and bases on the tensile strength of fibers.
8. Analyzing fruit and vegetable juices for acidity.

Note: Any other investigatory project requiring approximately 10 periods of work may be chosen with the teacher's approval.

MATHEMATICS (+1) (2025-2026)

The syllabus in the subject of Mathematics has undergone changes from time to time in accordance with growth of the subject and emerging needs of society. Senior Secondary stage is a launching stage from where the students go either for higher academic education in Mathematics or for professional courses like engineering, physical and Bioscience, commerce or computer applications. The present revised syllabus has been designed in accordance with National Curriculum Frame Work 2005 and as per guidelines given in Focus Group on Teaching of Mathematics 2005 which is to meet the emerging needs of all categories of students. Motivating the topics from real life situations and other subject areas, greater emphasis has been laid on application of various concepts.

OBJECTIVES

The broad objectives of teaching Mathematics at senior school stage intend to help the pupil

to acquire knowledge and critical understanding particularly by way of motivation of visualization of basic facts, concepts, terms, principles and symbols and mastery of underlying processes and skills

to feel the flow of reasons while proving a result or solving a problem

to apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method

to develop positive attitude to think analyze and articulate logically

to develop interest in the subject by participating in related competitions.

to acquaint students with different aspects of mathematics used in daily life

to develop awareness of the for national integration, protection of environment observance of small family norms, removal of social barriers, elimination of sex biases

to develop reverence and respect towards great Mathematicians for their contribution to the field of Mathematics

COURSE STRUCTURE

1. Sets
2. Relations and Functions
3. Trigonometric Functions
4. Complex Numbers and Quadratic Equations
5. Linear Inequalities
6. Permutations and Combinations
7. Binomial Theorem
8. Sequences and Series
9. Straight Lines
10. Conic Sections
11. Introduction to Three Dimensional Geometry
12. Limits and Derivatives
13. Statistics
14. Probability

Unit-I : Sets and Functions

1: Sets

Introduction, Sets and their representations. Empty set Finite and infinite sets, Equal sets, Subsets, Subsets of the set of real numbers especially intervals (with notations). Universal set, Venn diagrams, operations on sets Union and intersection of sets. Difference of sets: Complement of a set.

2: Relations and Functions

Introduction, Cartesian product of sets, Ordered pairs, Relation, Domain, Co Domain, Range, Function, Real Valued Function, Some Function and their graphs, Identity function, Constant Function, Polynomial Functions, Rational Functions, Modulus Functions, Signum Function, Greatest Integer Functions, Algebra of real Function.

3. Trigonometric Functions:

Introduction, Angles, Degree Measure, Radian Measure and their conversion, Notational Convention, Trigonometric Function and Sign of Trigonometric Functions, Domain and range of Trigonometric Functions, Trigonometric Functions of sum and difference of two angels.

Unit -II : Algebra

1. Complex Numbers

Introduction, complex numbers, Algebra of Complex Numbers, Power of i, the Square root of a negative real number, Complex number identities, the modulus and the conjugate of complex numbers, Argand Plane and Polar Representation (definition and its representation only)

2. Linear Inequalities :

Introduction and definition of inequalities, Algebraic solutions of linear inequalities in one variable and their graphical representation.

3. Permutations & Combinations :

Fundamental principle of counting. Permutations, Factorial notation, derivation of formulae, combinations and their Practical Problems.

4. Binomial Theorem

Introduction, statement and proof of the binomial theorem for positive integral indices Pascal's triangle, simple applications,

5. Sequence and Series:

Introduction, Sequence and Series. Geometric progression (GP) general term of a GP., sum of n terms of a GP, geometric mean (GM) relation between A.M. and G.M.

UNIT-III : COORDINATE GEOMETRY

1. Straight Lines :

Brief recall of 2D from earlier classes, Slope of a line, angle between two lines. Various forms of the equations of a line, point slope form, slope-intercept form, intercepts form. Distance of a point from a line and Distance between two parallel line.

2. Conic Sections :

Sections of cone, circles, ellipse, parabola, hyperbola, a point, a straight line and pair of intersecting lines as a degenerated case of a conic section, Standard equations and simple properties of parabola, ellipse and hyperbola, Standard equation of a circle.

3. Introduction to Three-dimensional Geometry

Coordinate axes and coordinate planes in three dimensions, Coordinates of a point in space, Distance between two points.

UNIT-IV: CALCULUS

1. Limits and Derivatives :

Institutive idea of Derivative, Introduced as rate of change, Algebra of limits, limits of polynomials rational Function, limits of trigonometric Function, Derivatives, First Principle of Derivative, Algebra of Derivative of Functions, Derivatives of Polynomial and trigonometric functions, Limit involving exponential and logarithmic function.

UNIT-V: STATISTICS & PROBABILITY

1. Statistics :

Introduction, Measures of dispersion, Mean deviation of grouped/ungrouped data, about mean, and about median, Shortcut method for calculating for mean deviation about mean and about median, variance and standard deviation.

2. Probability:

Event, occurrence of events and its types, algebra of events mutually exclusive events, exhaustive event, Axiomatic approach to probability.

PHYSICS (+1) (2025-2026)

Senior Secondary stage of school education is a stage of transition from General education to discipline - based focus on curriculum. The present updated syllabus keeps in view the rigour and depth of disciplinary approach as well as the comprehension level of learners. Due care has also been taken that the syllabus is not heavy and is at the same time, comparable to the international standards. Salient features of the syllabus include :

- Emphasis on basic conceptual understanding of the content.
- Emphasis, on use of SI units, symbols, nomenclature of physical quantities and formulations as per international standards.
- Providing logical sequencing of the units of the subject matter and proper placement of concepts with their linkage for better learning .
- Reducing the curriculum load by eliminating overlapping of concepts / content within the discipline and other disciplines .
- Promoting process - skills, problems - solving abilities and applications of Physics concepts .

Besides, the syllabus also attempts to

- Strengthen the concepts developed at the secondary stage to provide firm foundation for further learning in the subject.
- Expose the learners to different processes used in Physics - related industrial and technological applications
- Develop process - skills and experimental observational, manipulative, decision making and investigatory skills in the learners
- Promote problem solving abilities and creative thinking in learners .
- Develop conceptual competence in the learners and make them realize and appreciate the interface of Physics with other disciplines .

COURSE STRUCTURE (THEORY)

ONE PAPER

Unit - I

Unit - II

Unit - III

Unit - IV

Unit - V

Unit - VI

Unit - VII

Unit - VIII

Unit - IX

Unit - X

Unit - XI

Unit - XII

Unit - XIII

Unit - XIV

THREE HOURS

Class - XI

- UNITS AND MEASUREMENTS
- MOTION IN A STRAIGHT LINE
- MOTION IN A PLANE
- LAWS OF MOTION
- WORK, ENERGY AND POWER
- SYSTEM OF PARTICLES AND ROTATIONAL MOTION
- GRAVITATION
- MECHANICAL PROPERTIES OF SOLIDS
- MECHANICAL PROPERTIES OF FLUIDS
- THERMAL PROPERTIES OF MATTER
- THERMODYNAMICS
- KINETIC THEORY
- OSCILLATIONS
- WAVES

Unit - I: UNITS AND MEASUREMENTS

Introduction, System of units, Significant figures, Dimensions of Physical Quantities, Dimensional analysis and its applications.

Unit - II : MOTION IN A STRAIGHT LINE

Introduction, Instantaneous velocity and speed, Acceleration, Kinematic Equations for uniformly accelerated motion.

Unit - III : MOTION IN A PLANE

Introduction, Scalars and vectors, (position and displacement vectors, equality of vectors) Multiplication of a vector by real number, addition and subtraction of vectors, Resolution of vectors, Vector Addition-Analytical Method, Motion in Plane, motion in plane with constant acceleration, Projectile motion, uniform circular motion, centripetal acceleration.

Unit - IV : LAWS OF MOTION

Introduction, Aristotle's Fallacy, The laws of inertia, Newton's First Law of Motion, Newton's Second Law of Motion, Momentum; Impulse, Newton's Third Law of Motion, Conservation of Momentum and its applications, Equilibrium of Particle, common Forces in Mechanics,: Friction, Static Centripetal Force, Circular Motion (Motion of a car on level road and Banked Road), Solving Problem in Mechanics.

Unit - V: WORK, ENERGY AND POWER

Introduction, Scalar Project, work done by constant and variable force, kinetic energy, workEnergy Theorem, The concept of potential energy, the conservation of Mechanical energy, P.E of a spring, conservation Forces: Non-conservative Forces, Power, collisions (Elastic and Inelastic collisions), collision in one dimension collision in two dimension.

Unit - VI: SYSTEM OF PARTICLES AND ROTATIONAL MOTION

Introduction, centre of Mass, Motion of centre of Mass, linear Momentum of system of particles, vector product of two vectors, angular velocity and its relation with linear velocity, angular acceleration Torque and angular momentum, conservation of angular momentum with examples, equilibrium of rigid body, centre of gravity, moment of inertia, radius of gyration, kinematics of rotational motion about a fixed

axis, angular momentum in case of rotation, about fixed axis, conservation of angular momentum.

Unit - VII: GRAVITATION

Introduction, Kepler's laws, universal law of gravitation, gravitational constant, acceleration due to gravity acceleration due to gravity below and above the surface of earth, gravitational potential energy, escape speed, orbital velocity of Earth's satellites, energy of orbiting.

Unit - VIII: MECHANICAL PROPERTIES OF SOLIDS

Introduction, Stress and strain, Hooke's Law, Stress-Strain curve, Elastic moduli (Young's Modulus, Shear Modulus, Bulk Modulus), Poisson's Ration, Elastic P.E in a stratched wire, applications of Elastic behavior of Materials.

Unit - IX: MECHANICAL PROPERTIES OF FLUIDS

Introduction, Pressure due to liquid column, Pascal's law and its application, (Hydraulic lift and hydraulic brakes), streamline flow, equation of continuity, Bernoulli's principle (speed of efflux, Dynamics lift), Viscosity, stroke's Termin al velocity surface tension, surface energy and surface tension (relation), Angle of contact, excess pressure in drops and bubbles, capillary rise, .

Unit - X: THERMAL PROPERTIES OF MATTER

Introduction, Temperature and heat, measurement of temperature, ideal gas equation and absolute temperature, Thermal expansion (linear, orea and volume), Relation between coefficients of linear, area and volume expansion, specific heat capacity and molar specific heat capacity, calorimetry, change of state, latent heat, heat transfer (conduction, conversion and radiation) Blackbody radiation (Wien's Displacement and Stefan Boltzmann Law), Newton's law of cooling

Unit - XI: THERMODYNAMICS

Introduction, Thermal equilibrium, zeroth's law of thermodynamics, heat; internal energy and work, First law of thermodynamics, specific heat capacity, Thermodynamics state variables and equation of state, thermodynamics Processes (Quasi-static, isothermal adiabatic, isochoric process, isobaric and cyclic process)

Unit - XII: KINETIC THEORY

Introduction, molecular nature of matter, behavior of gases, kinetic theory of ideal gas, pressure of an ideal gas, kinetic interpretation of temperature, law of equipartition of energy, specific heat capacity (mono atomic, diatomic and poly atomic gases).

Unit - XIII: OSCILLATIONS

Introduction, Periodic and oscillatory motion; period and frequency; displacement, simple harmonic motion, simple harmonic motion and circular motion, velocity and acceleration in simple harmonic motion, force laws of simple harmonic motion, energy in simple harmonic motion, oscillation due to spring; simple pendulum

Unit - XIV: WAVES

Introduction, transverse and longitudinal waves, Displacement relation in progressive waves; amplitude and phase; wavelength and angular wave number; period, angular frequency and frequency, speed of travelling waves (transverse wave and longitudinal wave) principle of superposition of waves, reflection of waves, standing waves normal modes in strings and organ pipes, beats.

PRACTICALS

Note : Every student will perform 10 experiments (5 from each section) and 8 activities (4 from each section) during the academic vear.

Two demonstration experiments must be performed by the teacher with participation of students. The students will maintain a record of these demonstration experiments.

EVALUATION SCHEME FOR PRACTICAL EXAMINATION

One experiment from any one section

- Two activities (one from each section)
- Practical Record (experiments & activities)
- Record of demonstration experiments & Viva Based on these experiments
- Viva on experiments & activities

SECTION - A

Experiments

1. Use of Vernier Callipers

(i) To measure diameter of a small spherical / cylindrical body .

(ii) To measure dimensions of agiven regular body of known mass and hence find its density .

(iii) To measure internal diameter and depth of a given beakers calorimentre and hence find its volume .

2. Use of screw gauge

(1) To measure diameter of a given wire ,

(ii) To measure thickness of a given sheet

(iii) To measure volume of an irregular lamina .

3. To determine radius of curvature of a given spherical surface by a spherometer .

4. To find the weight of given body using parallelogram law of vectors.

5. Using a simple pendulum, plot L-T and L-T ${ }^2$ graphs. Hence find the effective length of second's Pendulum using appropriate graph.

6. To study the relationship between force of limiting frication and normal reaction and to find co-efficient of frication between a block and a horizontal surface.

7. To find the downward force, along an inclined plane, actiong on a roller due to gravitational pull of the earth and study its relationship with the angle of inclination by the plotting graph between force and sine.

Activites

1. To make a paper scale of given least count, e . g . $0.2 \mathrm{~cm} .0 .5 \mathrm{~cm}$

2. To determine mass of a given body using a meter scale by princiate moments .

3 To plot a graph for a given set of data, with proper choice of scales and error bars .

4 To measure the force of limiting friction for rolling of a roller on a horizontal plane .

3. To study the variation in range of a jet of water with angle of projection .

4. To study the conservation of energy of a ball rolling down on inclined plane (using a double inclined plane)...

5. To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time .

SECTION - B

Experiments

1. To determine Young 's modulus of elasticity of the material of a given wire .

2. To find the force constant of a helical spring by plotting graph between load and extension .

3. To study the variation in volume with pressure for a sample of air at constant temperature by plotting graphs between P and v, and between P and V / V.

4. determine the surface tension of water by capillary rise method .

5. To determine the coefficient of viscosity of measuring terminal velocity of a given spherical body.

6. To study the relationship between the te time by plotting a cooling curve .

7. (i) To study the relation between frequency and length of given wire under constant tension using sonometer.

(ii) To study the relation between the length of given wire and tension for constant frequency using sonometer.

8. To find the speed of sound in air at room temperature tube by two - resonance positions.

9. To determine specific heat of a given (i) solid (ii) liquid by method of mixtures

Activities

1. To observe change of state and plot a cooling curve for molten way

2. To observe and explain the effect of heating on a bi - metallic strip .

3. To note the change in level of liquid in a container on heating and interpret the observations .

4. To study the effect of detergent on surface tension by observing capillary rise .

5. To study the factors affecting the rate of loss of heat of a liquid.

6. To study the effect of load on depression of a suitably clamped meter scale loaded (i) at its end (ii) in the middle .

ग्रामीण मुक्त विद्यालयी शिक्षा संस्थान
Grameen Mukt Vidhyalayi Shiksha Sansthan

Syllabus

Based on National Curriculum FrameWork

"Education Breeds Confidence.
Confidence Breeds Hope.
Hope Breeds Peace."

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