

केन्द्रीय विद्यालय संगठन, रायपुर संभाग

प्रथम प्री बोर्ड परीक्षा (सत्र 2025-26)

कक्षा - 10 वीं  
अधिकतम - 80

विषय - हिंदी 'अ'

निर्धारित समय- 3 घंटे

सामान्य निर्देश:-

1. इस प्रश्नपत्र में चार खंड हैं - खंड 'क' अपठित बोध, खंड 'ख' व्यावहारिक व्याकरण, खंड 'ग' पाठ्यपुस्तक एवं पूरक पाठ्यपुस्तक, खंड 'घ' रचना लेखन |
2. प्रश्नपत्र के चारों खंडों को मिलाकर प्रश्नों की संख्या 15 हैं और सभी प्रश्न अनिवार्य हैं |
3. यथासंभव सभी प्रश्नों के उत्तर क्रमानुसार लिखिए |
4. कई प्रश्नों में उनके आंतरिक विकल्प भी दिए गए हैं | निर्देशानुसार विकल्प का ध्यान रखते हुए सभी प्रश्नों के उत्तर दीजिए |

	खंड (क) अपठित बोध	14 अंक
प्रश्न 1	<p>निम्नलिखित अपठित गद्यांश को पढ़कर इस पर आधारित बहुविकल्पी प्रश्नों के उत्तर दीजिए -</p> <p>'एक भारत, श्रेष्ठ भारत' अभियान देश के विभिन्न राज्यों में सांस्कृतिक एकता को बढ़ावा देता है। भारत एक अनोखा राष्ट्र है, जिसका निर्माण विविध भाषा संस्कृति धर्म के तानों- बानों, अहिंसा और न्याय के सिद्धांतों पर आधारित स्वाधीनता संग्राम तथा सांस्कृतिक विकास के समृद्ध इतिहास द्वारा एकता के सूत्र में बाँधकर हुआ है। हम इतिहास की बात करें या वर्तमान की, भारतवर्ष में कला एवं संस्कृति का अनूठा प्रदर्शन हर समय एवं हर स्थान पर हुआ है। नृत्य, संगीत, चित्रकला, मूर्तिकला वास्तुकला इत्यादि से संबंधित भारत की पहचान पूरे विश्व में है। भारतीय वास्तुकला एवं मूर्ति कला की परंपरा अत्यंत प्राचीन है। इस कला की कहानी लगभग 5000 वर्ष पूर्व सिंधु घाटी की सभ्यता से आरंभ होती है। इसके दो प्रमुख नगरों - मोहनजोदाड़ो और हड़प्पा में अच्छी सड़के, दो मंजिले मकान, स्नान घर, पक्की ईंटों के प्रयोग के सबूत मिले हैं। गुजरात के लोथल नामक स्थान की खुदाई से पता चलता है कि वहाँ नावों के सामान उतारने के लिए 216 x 37 मीटर लंबी चौड़ी तथा 15 फीट गाड़ी गोदी बनी हुई थी। यह लोग मिट्टी, पत्थर, धातु, हड्डी काँच आदि की मूर्तियों एवं खिलौने बनाने में कुशल थे। धातु से बनी एक मूर्ति में एक नारी को कमर पर हाथ रख नृत्य मुद्रा में दर्शाया गया है। दूसरी मूर्ति पशुपतिनाथ शिव जी की है तथा तीसरी मूर्ति दाढ़ी वाले व्यक्ति की है। यह तीनों मूर्तियाँ काल के सर्वश्रेष्ठ नमूने हैं। मूर्ति का श्रेष्ठ होना मूर्तिकार के कौशल पर निर्भर करता है। मूर्ति की प्रत्येक भाव भंगिमा को दर्शाने में मूर्तिकार जी जान लगा देता है। भारत के प्रत्येक कोने में इस प्रकार की विभिन्न कलाएँ हमारे संस्कृति में प्रतिबिंबित होती है। इस अतुलनीय निधि का बचाव और प्रचार प्रसार ही 'एक भारत, श्रेष्ठ भारत' की परिकल्पना है।</p> <p>निम्नलिखित में से सर्वाधिक उपयुक्त विकल्पों का चयन कीजिए।</p> <p>(i) उपरोक्त गद्यांश संदेश देता है-</p> <p>क) कलाकार अपनी कला का श्रेष्ठ प्रदर्शन करता है।</p> <p>ख) भारतीय नृत्य और संगीत की कला विश्वप्रसिद्ध है।</p> <p>ग) भारतीय सभ्यता व संस्कृति का संरक्षण आवश्यक है।</p> <p>घ) स्वाधीनता संग्राम में क्रांतिकारी का विशेष योगदान है।</p>	1x3=3

	<p>(ii) गद्यांश में मूर्तियों का सविस्तार वर्णन दर्शाता है-</p> <p>क ) सूक्ष्म अवलोकन एवं कला प्रेम  ख ) प्राचीन मूर्तियों की भावभंगिमा  ग ) स्थल अवलोकन एवं कला प्रेम  घ ) सांस्कृतिक एकता एवं सौहार्द</p> <p>(iii) निम्नलिखित कथन (A) और कारण (R) को ध्यानपूर्वक पढ़कर सही विकल्प चुनिए -  कथन (A) भारतवर्ष में कला एवं संस्कृति का अनूठा प्रदर्शन हर समय हुआ है ।  कारण (R) भारतीय वास्तुकला एवं मूर्तिकला की परंपरा अत्यंत प्राचीन है ।</p> <p>(क) कथन(A) गलत है किन्तु कारण (R) सही है ।  (ख) कथन (A) और कारण (R) दोनों गलत है ।  (ग) कथन (A) सही है और कारण (R) कथन (A) की सही व्याख्या करता है ।  (घ) कथन (A) सही है और कारण (R) कथन (A) की सही व्याख्या नहीं करता है ।</p>	
	<p>(iv) 'एक भारत, श्रेष्ठ भारत' अभियान किसको बढ़ावा देता है ? इसकी आवश्यकता क्यों है ?  (v) भारतीय वास्तुकला एवं मूर्ति कला किस प्रकार की है ?</p>	<p>2x2=4</p>
<p>प्रश्न 2</p>	<p>निम्नलिखित अपठित पद्यांश को पढ़कर इस पर आधारित बहुविकल्पी प्रश्नों के उत्तर दीजिए –</p> <p>दरवाजे से बाहर जाने से पहले,  अपने जूते के तस्में बाँधने के लिए मैं झुकता हूँ,  रोटी का कौर तोड़ने और खाने के लिए झुकता हूँ  अपनी थाली पर  जेब से अचानक गिर गई कलम या सिक्के को उठाने को झुकता हूँ ।  झुकता हूँ  लेकिन उस तरह नहीं,  जैसे एक चापलूस की आत्मा झुकती है,  किसी शक्तिशाली के सामने,  जैसे लज्जित या अपमानित होकर झुकती है आंखें  झुकता हूँ  जैसे शब्दों को पढ़ने के लिए आँखें झुकती है,  ताकत और अधीनता की भाषा से बाहर भी होते हैं  शब्दों और क्रियाओं के कई अर्थ होते हैं ।  झुकता हूँ  जैसे घुटना हमेशा पेट की तरफ ही मुड़ता है  यह कथन सिर्फ शरीर के नैसर्गिक गुणों,  या अवगुणों को ही व्यक्त नहीं करता,  कहावतें अर्थ से ज्यादा अभिप्राय में निवास करती हैं ।</p> <p>(i) किस तरह झुकना जीवन के सामान्य कार्य व्यवहार का हिस्सा नहीं है-  (क) जूते के फीते बाँधने के लिए झुकना  (ख) खाने का कौर उठाने के लिए झुकना</p>	<p>1x3=3</p>



	भेद बताइए।	
प्रश्न 4	<p>‘वाच्य’ पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर दीजिए</p> <p>1 कर्मवाच्य किसे कहते हैं ?</p> <p>2. 'नवाब साहब ने सतृष्ण आँखों से खीरे की फाँकों की ओर देखा।' वाच्य भेद बताइए-</p> <p>3 'अब चले।' - वाक्य को भाववाच्य में बदलिए।</p> <p>4 वाच्य किसे कहते हैं ?</p> <p>5 'प्रेमचंद ने प्रसिद्ध उपन्यास 'निर्मला' लिखा।' - वाक्य को कर्मवाच्य में बदलिए।</p>	1x4=4
प्रश्न 5	<p>‘अलंकार’ पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर दीजिए -</p> <p>1 मानवीकरण अलंकार किसे कहते हैं ?</p> <p>2 व्योम को छूटे हुए दुर्गम पहाड़ों के शिखर। वे घने जंगल जहाँ रहता हैं तम आठों पहर। ' पंक्ति में कौन सा अलंकार है?</p> <p>3 लता भवन तें प्रकट भे, तेहि अवसर दोउ भाइ। निकसे जनु जग विमल विधु जलद पटल बिलगाइ ॥ ' में कौन सा अलंकार है?</p> <p>4 'हाय! फूल- सी कोमल बच्ची हुई राख की ढेरा।' पंक्ति में उपमेय और उपमान शब्द कौन से हैं ?</p> <p>5 रूपक अलंकार का एक उदाहरण लिखिए।</p>	1x4 =4
प्रश्न 6	<p>‘पद’ पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों के उत्तर दीजिए -</p> <p>1 पद किसे कहते हैं ?</p> <p>2 <u>शीला जी</u> ने साहित्य के प्रति रुचि जगाई।' रेखांकित पद का परिचय है -</p> <p>3 श्री राम मानवीय मर्यादाओं <u>और</u> आदर्शों के प्रतीक हैं।' रेखांकित पद का परिचय है-</p> <p>4 <u>डूबते</u> व्यक्ति को तिनके का सहारा पर्याप्त है। रेखांकित पद का परिचय है -</p> <p>5 <u>वाह</u> ! भारत मैच जीत गया। रेखांकित पद का परिचय है-</p>	1x4 =4
	<b>खंड (ग) क्षितिज एवं कृतिका पाठ्यपुस्तक</b>	<b>30</b>
प्रश्न 7	<p><b>निम्नलिखित गद्यांश को पढ़कर नीचे दिए गए प्रश्नों का उत्तर दीजिये -</b></p> <p>अनुमान के प्रतिकूल डिब्बा निर्जन था। एक बर्थ पर लखनऊ की नवाबी नस्ल के एक सफेद पुरुष सज्जन बहुत सुविधा से पालथी मारकर बैठे थे। सामने दो ताजा चिकने खीरे तौलिए पर रखे थे। डिब्बे में हमारे सहसा कूद जाने से सज्जन की आँखों में एकांत चिंतन में विघ्न का असंतोष दिखाई दिया। सोचा, हो सकता है, यह भी कहानी के लिए सूझ की चिंता में हो या खीरे जैसी अपदार्थ वस्तु का शौक करते देखे जाने के संकोच में हो। नवाब साहब ने संगति के लिए उत्साह नहीं दिखाई। हमने भी उनके सामने ही बर्थ पर बैठकर आत्म सम्मान में आँखें चुरा ली।</p> <p><b>(1) उपर्युक्त गद्यांश का पाठ और लेखक का नाम बताइए-</b></p> <p><b>(2) लेखक ने नवाब से आँखें चुरा ली क्योंकि-</b></p> <p>(क) डिब्बा पूरा खाली था</p> <p>(ख) नवाब साहब के एकांत चिंतन में विघ्न हो रहा था</p> <p>(ग) नवाब साहब खीरा काट रहे थे</p> <p>(घ) वे एक दूसरे को जानते थे</p> <p><b>(3) डिब्बे में पहले से कौन उपस्थित था ?</b></p> <p>(क) नवाब साहब के मित्र</p> <p>(ख) लेखक के मित्र</p> <p>(ग) नवाबी नस्ल के एक सफेदपोश सज्जन</p> <p>(घ) उपर्युक्त में से कोई नहीं</p>	1x5=5

	<p>(4) कथन (i) नवाब साहब लेखक से बात करने के लिए उत्सुक दिखाई दे रहे थे।  कथन (ii) लेखक के डिब्बे में प्रवेश करने पर नवाब साहब की आँखों में असंतोष के भाव थे।  कथन (iii) नवाब साहब ने खीरे, समय व्यतीत करने के उद्देश्य से खरीदे थे।  उपर्युक्त कथनों के लिए सही विकल्प का चयन कीजिए-</p> <p>विकल्प (क) केवल i कथन सही है किंतु कथन ii और iii गलत है।  (ख) कथन i व ii सही है किंतु iii गलत है।  (ग) कथन i,ii व iii सही है।  (घ) कथन i गलत है किंतु कथन ii और iii सही है।</p> <p>(5) गद्यांश के आधार पर बताइए कि अपदार्थ वस्तु किसे कहा गया है ?  (क) डिब्बे को  (ख) गाड़ी को  (ग) खीरे को  (घ) इनमें से कोई नहीं</p>	
प्रश्न 8	क्षितिज पाठ्यपुस्तक के गद्य भाग पर आधारित निम्नलिखित में से <u>किन्ही तीन प्रश्नों के उत्तर लिखिए</u> – (शब्द सीमा – 25-30 शब्द)	2x3=6
(१)	‘नौबतखाने में इबादत’ पाठ में किस प्रसिद्ध संगीतज्ञ की चर्चा की गई है ? उनके स्वभाव और कार्यकलापों से सांप्रदायिक सद्भाव के क्षेत्र में हमें क्या शिक्षा मिलती है ?	
(२)	लेखक के अनुसार संस्कृति क्या है ? संस्कृति की परिभाषा के आधार पर सांस्कृतिक विरासत किसे कहा जा सकता है ?	
(३)	लेखक ने बालगोबिन भगत के संगीत को ‘संगीत है या जादू’ क्यों कहा है ?	
(४)	लेखिका मन्नू भण्डारी के मन में राष्ट्रीय भावना जगाने में पिता की क्या भूमिका रही ?	
प्रश्न 9	निम्नलिखित पद्यांश को पढ़कर प्रश्नों के उत्तर सही विकल्प चुनकर दीजिए -	1x5=5
	तुम मुझे पाए नहीं पहचान ? देखते ही रहोगे अनिमेष! थक गए हो ? आँख लूँ मैं फेर ? क्या हुआ यदि हो सके परिचित न पहली बार ? यदि तुम्हारी माँ न माध्यम बनी होती आज मैं न सकता देख मैं न पाता जान तुम्हारी यह दंतुरित मुस्कान धन्य तुम, माँ भी तुम्हारी धन्य! चिर प्रवासी मैं इतर, मैं अन्य! इस अतिथि से प्रिय तुम्हारा क्या रहा संपर्क   उँगलियाँ माँ की करती रही है मधुपर्क देखते तुम इधर कनखी मार और होती जब कि आँखें चार .. <b>1 काव्यांश में किसकी आँखें चार होने की बात कही गई है ?</b>	

	<p>क. कवि और माँ की      ख. कवि और पिता की  ग. बच्चे और माँ की      घ. कवि और बच्चे की</p> <p><b>2 कथन (A) बालक का कवि को अपलक देखना उसकी जिज्ञासा को प्रकट करता है   कारण (R) बालक कवि को पहचानने का प्रयास करता है  </b></p> <p>(क) कथन(A) गलत है किन्तु कारण (R) सही है  (ख) कथन (A) और कारण (R) दोनों गलत है  (ग) कथन (A) सही है और कारण (R) कथन (A) की सही व्याख्या करता है  (घ) कथन (A) सही है और कारण (R) कथन (A) की सही व्याख्या नहीं करता है</p> <p><b>3. काव्यांश में बालक और माँ को धन्य बताया गया है, -</b></p> <p>क. बालक का अस्तित्व उसकी माँ के कारण है।  ख. बालक की मुस्कान निराशा व हताशा में भी आशा का संचार करती है।  ग. माँ जन्मदात्री है।  घ. उपरोक्त सभी</p> <p><b>4. 'अनिमेष' का क्या अर्थ है ?</b></p> <p>क. प्रसन्नतापूर्वक देखना      ख. एकटक देखना  ग. विनम्रतापूर्वक देखना      घ. पलक झपका कर देखना</p> <p><b>5. इस अतिथि से प्रिय तुम्हारा क्या रहा संपर्क   उँगलियाँ माँ की करती रही है मधुपर्क यह कथन ----- का उदाहरण है।</b></p> <p>क. व्यंग्य                      ख क्रोध  ग. वात्सल्य                    घ. इनमें से कोई नहीं</p>	
<b>प्रश्न 10</b>	<b>क्षितिज पाठ्यपुस्तक के षष्ठ भाग पर आधारित निम्नलिखित में से <u>किन्हीं तीन प्रश्नों के उत्तर लिखिए – (शब्द सीमा -25-30 शब्द)</u></b>	<b>2x3=6</b>
(१)	'अट नहीं रही है' कविता के आधार पर वसंत ऋतु की शोभा का वर्णन कीजिए ?	
(२)	'आत्मकथ्य' कविता में कवि जयशंकर प्रसाद ने अपनी कथा न कहने के क्या कारण बताए हैं ?	
(३)	'संगतकार का सामने न आना उसकी विफलता नहीं मनुष्यता है।' इस कथन से आप कहाँ तक सहमत हैं ?	
(४)	गोपियों ने अपने वाक्चातुर्य के आधार पर ज्ञानी उद्धव को परास्त कर दिया , उनके वाक्चातुर्य की विशेषताएँ लिखिए।	
<b>प्रश्न 11</b>	<b>कृतिका पाठ्यपुस्तक आधारित निम्नलिखित में से <u>किन्हीं दो प्रश्नों के उत्तर दीजिए – (शब्द सीमा 50-60 शब्द)</u></b>	<b>2x4=8</b>
(१)	'माता का अंचल' पाठ में ग्रामीण परिवेश का चित्रण किया गया। आप ग्रामीण जीवन व शहरी जीवन में क्या अंतर पाते हैं ?	
(२)	पहाड़ों पर पुरुषों की अपेक्षा स्त्रियों का जीवन अधिक कठिनाइयों से भर है। उन कठिनाइयों का निवारण वे कर्तव्यप्रियता से ही करती है। 'साना-साना हाथ जोड़ि' पाठ के आधार पर सोदाहरण स्पष्ट कीजिए।	
(३)	रचनाकार की भीतरी विवशता ही उसे लेखन के लिए मजबूर करती है और लिखकर ही रचनाकार उससे मुक्त हो पाता है। 'मैं क्यों लिखता हूँ' पाठ के आधार पर हिरोशिमा घटना से जोड़ते हुए इस कथन की पुष्टि कीजिए।	
	<b>खंड (घ) रचना लेखन</b>	<b>20</b>

प्रश्न 12	निम्नलिखित में से किसी एक विषय पर दिए गए संकेत बिन्दुओं के आधार पर लगभग 120 शब्दों में एक अनुच्छेद लिखिए –	6x1 =6
*	सामाजिक संजाल (सोशल नेटवर्किंग) : वरदान या अभिशाप संकेत बिंदु – <ul style="list-style-type: none"> <li>● सोशल नेटवर्किंग के लाभ</li> <li>● हानियाँ</li> <li>● उचित प्रयोग</li> </ul>	
*	प्लास्टिक को न कहें संकेत बिंदु - <ul style="list-style-type: none"> <li>● प्लास्टिक की विविध वस्तुएँ</li> <li>● पॉलीथिन की थैलियाँ – हानिकारक</li> <li>● अपने-अपने थैले</li> </ul>	
*	मनपसंद फिल्म की समीक्षा संकेत बिन्दु – <ul style="list-style-type: none"> <li>● पात्र, अभिनय, कलाकार, पटकथा, संगीत आदि पर टिप्पणियाँ</li> <li>● क्या वास्तविक जीवन के निकट थी ?</li> <li>● क्या प्रेरणा मिली ?</li> </ul>	
प्रश्न 13	आप हर्ष/ हर्षिता हैं। आपके क्षेत्र में स्थित स्टेडियम की स्थापना दिवस की वर्षगांठ के अवसर पर दिव्यांग बच्चों द्वारा अपनी प्रतिभा का प्रदर्शन किया जाएगा। इस कार्यक्रम के सीधे प्रसारण की प्रार्थना करते हुए दूरदर्शन निदेशक को लगभग 100 शब्दों में पत्र लिखिए। अथवा आप क्षितिज / कृतिका हैं। खराब जीवन शैली के कारण आपके मित्र का स्वास्थ्य प्रभावित हो रहा है संयमित और स्वस्थ जीवन शैली का महत्व बताते हुए लगभग 100 शब्दों में अपने मित्र को एक पत्र लिखिए।	5x1=5
प्रश्न 14	आप श्रेया गुप्ता / श्रेयांश गुप्ता है। आपको अपने मित्र से स्थानीय नवोदय विद्यालय में हिन्दी शिक्षक पद के रिक्त होने की सूचना मिली है। आप इस पद के लिए योग्य उम्मीदवार हैं और अपनी सेवा देने के इच्छुक हैं। इस पद पर नियुक्ति पाने हेतु एक स्ववृत्त तैयार कीजिए। अथवा आप निवेदिता / निखिल हैं। अपने बैंक खाते में नेट बैंकिंग सुविधा प्राप्त करने के लिए संबंधित शाखा प्रबंधक को लगभग 80 शब्दों में ई-मेल कीजिए।	5x1=5
प्रश्न 15	आपके शहर में हास्य कवि सम्मेलन आयोजित होने जा रहा है। इसमें देश के प्रसिद्ध हास्य कवि आमंत्रित हैं। इसके प्रचार के लिए लगभग 40 शब्दों में विज्ञापन तैयार कीजिए। अथवा आपके भाई को राष्ट्रपति द्वारा 'वीर बालक सम्मान' से पुरस्कृत किया गया है, उसे बधाई संदेश लिखिए।	4x1=4

**KENDRIYA VIDYALAYA SANGATHAN, RAIPUR REGION**

**FIRST PRE - BOARD EXAM (2025-26)**

**Subject: - English Communicative (Sub code 101)**

**Class: X**

**Time: 03 Hrs**

**Max Marks: 80**

**General instructions:**

- All questions are compulsory
- Marks are indicated against each question
- Reading time allotted to you is 15 minutes
- Attempt all the question in each section before going to the next section
- Read each question carefully and follow the instructions as directed
- Adhere to the prescribed word limit while answering the questions.

<b>S.No</b>	<b>Section A - Reading Comprehension</b>	<b>22 Mks</b>
<b>Q1.</b>	<b>Read the passage and answer the questions that follow.</b>	<b>12M</b>
	Over the last two decades, India has been undergoing a quiet transformation—one not always captured by glossy images of skyscrapers or metros. This change is taking place in villages, where nearly 65 percent of the population still resides. Rural India, often stereotyped as stagnant, has been steadily reshaping itself in terms of economy, education, and aspirations.	
	The first and perhaps most significant change has been the diversification of income sources. Traditionally, agriculture was the backbone of rural livelihoods. Even today, it employs a large number of people. However, with unpredictable monsoons, limited land, and rising cultivation costs, many families have sought alternative means of income. A rise in rural entrepreneurship is visible: from grocery shops to food-processing units, tailoring businesses, and digital service centers. This reflects not only resilience but also the willingness to embrace new opportunities	
	Education has played a pivotal role in this transformation. Earlier, sending children to school, particularly girls, was considered unnecessary. But government initiatives like the Sarva Shiksha Abhiyan, mid-day meal schemes, and scholarships encouraged parents to prioritize education. A	

	<p>new generation is not only completing school but also aspiring for higher studies. Many are the first in their families to attend college, breaking barriers of caste, gender, and tradition. Education has broadened their outlook, given them confidence, and enabled them to dream of careers beyond agriculture or crafts.</p>	
	<p>Technology, too, has been a great enabler. Mobile phones, once considered a luxury, are now indispensable in rural households. Smartphones and affordable internet have connected villages to the wider world. Farmers can check weather forecasts, learn modern farming techniques, and even sell their produce online. Young villagers, who once felt cut off from city life, are now as updated with global trends as their urban counterparts. In some areas, women run small businesses entirely through WhatsApp groups, selling handicrafts, pickles, or handloom products.</p>	
	<p>Migration has also contributed to this transformation. Many young men and women migrate seasonally or permanently to cities in search of jobs. The remittances they send home support their families and improve village life. Houses are being rebuilt with better facilities, children attend private schools, and healthcare is sought in towns. However, migration has also led to challenges. Villages witness aging populations as the youth leave. Moreover, the traditional sense of community bonding is weakening as families become nuclear.</p>	
	<p>Health and sanitation have shown gradual progress, though issues remain. The government's Swachh Bharat Abhiyan created awareness about cleanliness. Many villages built toilets, reducing open defecation. Access to clean water has improved, though in drought-prone areas, scarcity still dictates routines. Healthcare facilities remain inadequate in remote regions, forcing people to travel long distances. Yet, compared to even fifteen years ago, there is growing recognition of the importance of health and hygiene.</p>	
	<p>Culturally, rural India has not abandoned its roots. Festivals, folk music, dances, and traditional crafts still thrive, even as they adapt to modern influences. Television and social media have introduced new fashions, but villagers often blend these with tradition. Weddings now combine modern music with folk songs, or designer outfits with handwoven fabrics. This balance reflects a community that values heritage while welcoming change.</p>	
	<p>Environmental concerns, however, are emerging. Overuse of chemical fertilizers, deforestation, and groundwater depletion threaten rural sustainability. Climate change, leading to erratic rainfall, is a constant worry for farmers. Encouragingly, some villages are turning to organic farming,</p>	



Q2.	Read & Analyse the passage and answer the questions that follow.	10 M																																
<p><b>Changing Lifestyles of Indian Teenagers (Survey 2024)</b></p> <p>The following information is based on a national survey conducted among 5,000 teenagers (ages 13-19) in both rural and urban India. It highlights how their time, habits, and priorities are changing in the digital era.</p> <table border="1" data-bbox="199 517 1394 1171"> <thead> <tr> <th>Activity</th> <th>Rural Teenagers (hrs)</th> <th>Urban Teenagers (hrs)</th> <th>National Average (hrs)</th> </tr> </thead> <tbody> <tr> <td>School/College Studies</td> <td>4.5</td> <td>5.0</td> <td>4.7</td> </tr> <tr> <td>Homework/Extra Classes</td> <td>1.5</td> <td>2.5</td> <td>2.0</td> </tr> <tr> <td>Screen Entertainment (TV/OTT/Gaming)</td> <td>2.0</td> <td>3.8</td> <td>2.9</td> </tr> <tr> <td>Social Media &amp; Messaging</td> <td>1.5</td> <td>2.7</td> <td>2.1</td> </tr> <tr> <td>Household Chores/Work</td> <td>2.2</td> <td>1.2</td> <td>1.7</td> </tr> <tr> <td>Physical Activities/Sports</td> <td>1.8</td> <td>1.0</td> <td>1.4</td> </tr> <tr> <td>Sleep</td> <td>10.0</td> <td>8.5</td> <td>9.2</td> </tr> </tbody> </table> <p>The table shows striking differences between rural and urban teenage lifestyles. Rural students spend slightly less time on formal education but more on household chores. Urban teenagers spend far more hours on screens—especially entertainment and social media.</p>			Activity	Rural Teenagers (hrs)	Urban Teenagers (hrs)	National Average (hrs)	School/College Studies	4.5	5.0	4.7	Homework/Extra Classes	1.5	2.5	2.0	Screen Entertainment (TV/OTT/Gaming)	2.0	3.8	2.9	Social Media & Messaging	1.5	2.7	2.1	Household Chores/Work	2.2	1.2	1.7	Physical Activities/Sports	1.8	1.0	1.4	Sleep	10.0	8.5	9.2
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<p>Education remains a central part of daily life. On average, students devote nearly 6.7 hours (class + homework) to academics. However, the national average for screen-related activities (OTT, gaming, social media) is also very high at 5 hours daily, nearly rivaling time spent on studies. This dual focus reflects the attraction of digital life alongside academic pressure.</p>																																		
<p>Physical activity is another area of concern. Rural youth, often engaged in outdoor work, spend more time in physical activities compared to urban teenagers, who average only about 1 hour daily. Experts suggest that this lack of movement may contribute to rising obesity and lifestyle-related health problems among city-based adolescents.</p>																																		
<p>Interestingly, rural teenagers sleep more (10 hours) compared to urban youth (8.5 hours). Researchers interpret this as both a cultural and environmental factor—urban teenagers often stay up late on devices, while rural youth follow earlier routines.</p>																																		



	<p>description of the event in about 100-120 words.</p> <p><b>You may use the following cues:</b></p> <ol style="list-style-type: none"> <li>1. Date and venue of the exhibition</li> <li>2. Inauguration / Chief Guest</li> <li>3. Number and type of exhibits</li> <li>4. Special attractions / innovative ideas</li> <li>5. Response of students and visitors</li> </ol>	
<b>Q5.</b>	<p>The recent reports in the newspapers about the growing incidence of bullying in schools have greatly disturbed you. Write a letter to the Editor of a local daily in not more than 120 words, expressing your views on this problem and suggesting ways to solve it. You are Mithun/Maithili of class X C, Vivekananda Public School, Jodhpur. You can take ideas from your M.C.B unit on 'Education'</p>	7
	<b>OR</b>	
	<p>You are awaiting your class X result. Meanwhile you would like to do a Short-term Course in Computer Graphics. Write a letter to the Director, Institute of Higher Learning, Hyderabad, in not more than 120 words, inquiring about the details of the course. You are Kiran/Keerthana, a resident of 12 M.G.Road Vijayawada.</p>	
<b>Q6.</b>	<p>In recent years, we witnessed the outcome of horrific landslides in many parts of our country, which took over hundreds of lives. You feel that most of the natural disasters are manmade. Based on your observation, write an article, in about 150 words, as Surabhi Krishna/Sourabh Krishna, of Netaji Road, Jharkand advocating for 'Sustainable Development'. You can use points from the M.C.B. Unit on 'Environment', your own ideas and the following hints:</p> <ul style="list-style-type: none"> <li>• Planning development models for ecologically sensitive areas</li> <li>• Climatic change</li> <li>• Ensuring popular support for development and conservation</li> <li>• Declaring such places as ecologically sensitive areas</li> <li>• Analysing the reason for lack of support from the local communities</li> <li>• Banning destructive activities such as mining, quarrying, building projects etc. in such fragile areas.</li> </ul>	8
	<b>OR</b>	
	<p>Recently during the fag end of Nava Kerala Sadas, the Government of Kerala has decided to bring out millet-based parotta and other food</p>	

	<p>products to promote healthy eating. The recipe has been prepared by nutritionists at the Indian Institute of Millet Research Centre, Hyderabad. Subsequently the officials in the Agricultural Department has thought of setting up permanent millet cafes in all 14 districts. Prepare an article in about 150 words, for popularization of the programme so that people can devour many food items of their choice without having any guilt pangs and can lead a healthy way of living. You can use points from M.C.B. Unit on 'Health and Medicine', your own ideas and the following hints:</p> <ul style="list-style-type: none"> <li>• The United Nations had recognized 2023 as the International Year of Millets</li> <li>• Health and nutritional benefits.</li> <li>• Quality and taste of millet products are good.</li> <li>• Campaign against parotta made of maida.</li> <li>• Other attractive items on the menu (For example, biriyani made of millets)</li> <li>• Breakfast, lunch and snacks made out of millet.</li> </ul>																			
	<b>Section C - Grammar</b>	<b>10 M</b>																		
<p><b>Q7.</b></p>	<p><b>Fill in the blanks (i-iii) with the appropriate option from those in the brackets.</b></p> <p>Not a single ball was (i) ----- (bowl/bowling/bowled/being bowled) on day three (ii) -----(in/of/off/on) the Ranji Trophy Elite Group C match between Karnataka and Kerala at the Alur Grounds on Sunday after overnight and early morning rain (iii) ----- (render/renders/rendering/rendered) the outfield unplayable.</p>	3																		
<p><b>Q8.</b></p>	<p><b>The following paragraph has not been edited. There is one error in each line .Write the error and its correction as shown in the example:</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 20%; text-align: center;">Error</th> <th style="width: 20%; text-align: center;">Correction</th> </tr> </thead> <tbody> <tr> <td>The students was excited for the picnic.</td> <td style="text-align: center;">Was</td> <td style="text-align: center;">Were</td> </tr> <tr> <td>They has been planning it since a week</td> <td style="text-align: center;">a _____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>Everyone bring their lunch from home.</td> <td style="text-align: center;">b _____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>The teacher tell them to be careful near the river.</td> <td style="text-align: center;">c _____</td> <td style="text-align: center;">_____</td> </tr> <tr> <td>The bus were waiting outside the school gate.</td> <td style="text-align: center;">d _____</td> <td style="text-align: center;">_____</td> </tr> </tbody> </table>		Error	Correction	The students was excited for the picnic.	Was	Were	They has been planning it since a week	a _____	_____	Everyone bring their lunch from home.	b _____	_____	The teacher tell them to be careful near the river.	c _____	_____	The bus were waiting outside the school gate.	d _____	_____	4
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They has been planning it since a week	a _____	_____																		
Everyone bring their lunch from home.	b _____	_____																		
The teacher tell them to be careful near the river.	c _____	_____																		
The bus were waiting outside the school gate.	d _____	_____																		

<p><b>Q9i.</b></p> <p><b>ii.</b></p>	<p><b>Rearrange the following words to make a meaningful sentence.</b></p> <p>Social/very/prevalent/world/the/around/is/injustice</p> <p><b>Report the dialogues to complete the paragraph that follows.</b></p> <p>Teacher: "Rahul, have you completed your homework?"  Rahul: "Yes, ma'am, I finished it yesterday."  Teacher: "That's great! Can you show it to me?"</p> <p>The teacher asked Rahul _____ (1) his homework. Rahul replied that _____(2)</p>	<p>1</p> <p>2</p>
<p><b>Section D - Literature Reader</b></p>		<p>26 M</p>
<p><b>Q10</b></p>	<p>Read the given excerpts and attempt <b>ANY TWO</b>, by answering the questions that follow.</p>	<p>4+4</p>
<p><b>A.</b></p>	<p><i>He holds him with his skinny hand,  'There was a ship,' quoth he, hold  off! Unhand me, grey-beard loon!  Eftsoons his hand dropt he.</i></p> <p><b>(i) Why does the mariner use physical force to hold on to that person?</b>  (a) he is very strong (b) he likes the wedding-guest  (c) the wedding-guest does not wish to be detained (d) He wants to impress him</p> <p><b>(ii) Explain the reaction of the other speaker. What is the reason of his anger?</b>  (a) he hates the mariner (b) mariner is very dirty and shabby  (c) he is desperate to attend the wedding (d) he is tired</p> <p><b>(iii) Point out an archaic word from the above stanza.</b></p> <p><b>(iv) Explain 'grey-beard loon'.</b></p>	
<p><b>B.</b></p>	<p><i>Victoria : Are we pinching it before Aunt Elizabeth comes?</i></p> <p><i>Henry : (Shocked) No, my child. Grandpa gave it to your mother before he died.</i></p> <p><b>(i) Victoria's remarks reflect upon the behaviour of the adults that they are</b>  (a) hypocrites (b) mercenary (c) greed-driven (d) clever</p> <p><b>(ii) Henry proves to be _____ from this statement.</b>  (a) submissive (b) gullible (c) hen-pecked(d) vulnerable</p>	

	<p>(iii) What qualities of Victoria are portrayed in these lines?</p> <p>(iv) What was the object that Slaters were talking about in these lines?</p>	
C.	<p><i>I suddenly saw the photograph that went with the story, and gasped. The boy in the picture was Sebastian. There was no doubt. "But how?" I muttered.</i></p> <p><i>Sebastian Shultz, the boy I'd got to know so well recently, had apparently been in a coma for all that time. I felt nervous and shivery. It didn't make any sense at all. I stared out of the train window, and ran through the events in my head.</i></p> <p>(i) Who is 'I'?</p> <p>(ii) Whose photograph did he see?</p> <p>(iii) Find a word in the given extract which means the same as "catch one's breath with an open mouth, owing to pain or astonishment"</p> <p>(iv) What had happened to him?</p>	
Q11.	Answer ANY FIVE out of the following six questions given below in about 40 words.	10
1.	How did the frog become the unrivalled king of the bog again?	
2.	Explain in your words how his 'poetry' has been glorified by the poet, in the poem, 'Not Marble, Nor the Gilded Monuments.'	
3.	What is the difference between the snake's movement at the beginning of the poem and later when the poet strikes it with a log of wood?	
4.	Bring out the similarities in the characters of Mrs Packletide and Loona Bimberton.	
5.	How does Patol Babu reconcile to the dialogue given to him ?	
6.	Why is the ghost fed up of the Ouija Board fanatics?	
Q12.	Answer ANY ONE out of the following two questions given below in about 150 words.	8
1.	Antony's funeral speech changes the mood of the people completely. How does he manage to influence and convince the crowd? Explain (Julius Caesar)	
2.	Ali waits for five long years at the post office for a letter from his daughter, yet he never receives it in his lifetime. Do you think his patience and hope make him a weak character or a strong one? Justify your answer with reference to the story	

**KENDRIYA VIDYALAYA SANGATHAN, RAIPUR REGION**  
**FIRST PRE-BOARD EXAM (2025-26)**  
**Subject: MATHEMATICS BASIC (Code-241)**

**Class: X**

**Max. Marks: 80**

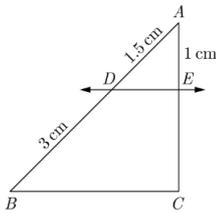
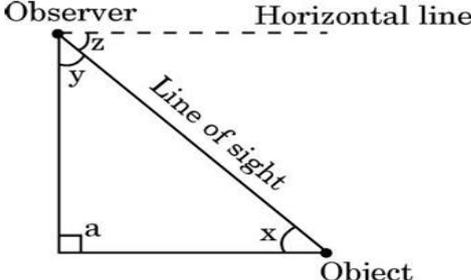
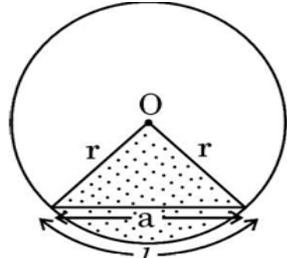
**Time: 3.00 HRS**

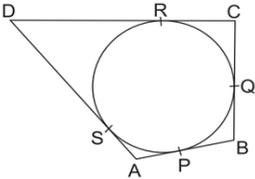
**General Instructions:**

Read the following instructions carefully and strictly follow them:

- i. This question paper contains **38** questions. **All** questions are **compulsory**.
- ii. This question paper is divided into **five** sections- **A, B, C, D and E**.
- iii. In **Section A**, Questions no. **1 to 18** are Multiple Choice Questions (MCQs) and questions number **19 and 20** are Assertion-Reason based questions of **1** mark each.
- iv. In **Section B**, Questions no. **21 to 25** are Very Short Answer (VSA) type questions, carrying **2** marks each.
- v. In **Section C**, Questions no. **26 to 31** are Short Answer (SA) type questions, carrying **3** marks each.
- vi. In **Section D**, Questions no. **32 to 35** are Long Answer (LA) type questions carrying **5** marks each.
- vii. In **Section E**, Questions no. **36 to 38** are case study based questions carrying **4** marks each. Internal choice is provided in **2** marks questions in each case study.
- viii. There is no overall choice. However, an internal choice has been provided in **2** questions in Section B, **2** questions in Section C, **2** questions in Section D and **3** questions in Section E.
- ix. Draw neat diagrams wherever required. Take  $\pi = \frac{22}{7}$  wherever required, if not stated.
- x. Use of calculator is **not** allowed.

<b>SECTION–A</b> <b>(Multiple Choice Questions)</b>		
<i>Each MCQ of 1mark ,has four options with only one correct option ,choose the correct option</i>		
Q.N	Question	Marks
1.	The number $3 + \sqrt{2}$ is: (A) a rational number                      (B) an irrational number (C) an integer                                      (D) a natural number	1
2.	The value of the polynomial $f(x) = x^2 - 4x + 4$ at $x = 2$ is: (A) 0                      (B) 4    (C) 2                      (D) -2	1
3.	If a pair of linear equations has a unique solution, then the lines represented are: (A) Intersecting    (B) Parallel    (C) Coincident    (D) None of these	1
4.	Which of the following is <b>not</b> a quadratic equation? (A) $(x+2)^2=2(x+3)$ (B) $x^2+3x=(-1)(1-3x^2)$ (C) $(x+2)(x-1)=x^2-2x-3$ (D) $x^3-x^2+2x+1=(x+1)^3$	1
5.	If the common difference of an AP is 5, then what is $a_{18} - a_{13}$ ? (A) 5                      (B) 20    (C) 25    (D) 30	1
6.	The $n^{\text{th}}$ term of the AP $a, 3a, 5a, \dots$ is (A) $na$ (B) $(2n-1)a$ (C) $(2n+1)a$ (D) $2na$	1
7.	The mid-point of the line segment joining points (1, 3) and (1, - 3) lies : (A) at the origin                      (B) in the second quadrant (C) on x-axis                      (D) on y-axis	1
8.	The distance of the point (2, 3) from the origin is : (A) 2                      (B) 3                      (C) 5                      (D) $\sqrt{13}$	1

9.	A vertical stick of length 7.5 m casts a shadow 5 m long on the ground and at the same time a tower casts a shadow 24 m long. Find the height of the tower. (A) 20 m (B) 40 m (C) 60 m (D) none of these	1												
10.	If in $\triangle ABC$ and $\triangle DEF$ , $\frac{AB}{EF} = \frac{AC}{DE}$ then they will be similar when (A) $\angle A = \angle D$ (B) $\angle A = \angle E$ (C) $\angle C = \angle F$ (D) $\angle B = \angle E$	1												
11.	In the given figure, $DE \parallel BC$ . The value of EC (A) 1.5 cm (B) 3 cm (C) 2 cm (D) 1 cm	1												
														
12.	From an external point Q, the length of tangent to a circle is 12 cm and the distance of Q from the centre of circle is 13 cm. The radius of circle (in cm) is (A) 10 (B) 5 (C) 12 (D) 7	1												
13.	Which one of the following is <b>not</b> equal to unity? (A) $\sin^2 A + \cos^2 A$ (B) $\cot^2 A - \operatorname{cosec}^2 A$ (C) $\sec^2 A - \tan^2 A$ (D) $\tan A \cdot \cot A$	1												
14.	In the given figure, which of the following angles represents the angle of depression? (A) x (B) y (C) z (D) a	1												
														
15.	The perimeter of the shaded region in the given figure is (A) $l$ (B) $l + a$ (C) $l + 2r$ (D) $l + 2r + a$	1												
														
16.	If the mode of a distribution is 8 and its mean is also 8, then find median. (A) 11 (B) 12 (C) 8 (D) 14	1												
17.	Consider the following frequency distribution <table border="1" data-bbox="247 1478 1157 1556"> <tbody> <tr> <td>Class</td> <td>0-5</td> <td>5-10</td> <td>10-15</td> <td>15-20</td> <td>20-25</td> </tr> <tr> <td>Frequency</td> <td>11</td> <td>12</td> <td>12</td> <td>9</td> <td>11</td> </tr> </tbody> </table> The upper limit of median class: (A) 10 (B) 13 (C) 15 (D) 20	Class	0-5	5-10	10-15	15-20	20-25	Frequency	11	12	12	9	11	1
Class	0-5	5-10	10-15	15-20	20-25									
Frequency	11	12	12	9	11									
18.	Two dice are thrown at the same time, what is the probability that the sum appearing on the two top 8 is ----- (a) $5/8$ (b) $5/36$ (c) $5/12$ (d) None	1												
	Questions number 19 and 20 are Assertion and Reason based questions. Two statements are given, one labeled as Assertion (A) and the other is labeled as Reason (R). Select the correct answer to these questions from the codes (A), (B), (C) and (D) as given below. (A) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A). (B) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A). (C) Assertion (A) is true, but Reason (R) is false. (D) Assertion (A) is false, but Reason (R) is true.													

19.	<b>ASSERTION (A):</b> Line joining the midpoints of two sides of triangle is parallel to the third side. <b>REASON (R):</b> If a line divides two sides of a triangle in the same ratio then it is parallel to the third side.	1												
20.	<b>ASSERTION (A):</b> If the value of mode and mean is 60 and 66 respectively, then the value of median is 64. <b>REASON (R):</b> Median = (mode + 2 mean)/2	1												
<b>SECTION – B (Very Short Answers)</b> <b>This section comprises of VSA of 2 marks each</b>														
21.	(A) Show that the number $2 \times 5 \times 7 \times 11 + 11 \times 13$ is a composite number. <b>OR</b> (B) Find the smallest number which is divisible by both 306 and 657.	2												
22.	If $\alpha$ and $\beta$ are the zeroes of polynomial $p(x) = x^2 + 3x + 2$ , find a quadratic polynomial whose zeroes are $\alpha + 1, \beta + 1$ .	2												
23.	Find the nature of roots of the quadratic equation $x^2 - 5x + 6 = 0$ .	2												
24.	Find the length of tangent drawn to a circle with radius 7 cm from a point 25 cm away from the centre.	2												
25.	Evaluate: $\tan^2 30^\circ - \tan^2 60^\circ + \operatorname{cosec}^2 45^\circ$	2												
<b>SECTION – C (Short Answers)</b> <b>This section comprises of SA type questions of 3 marks each</b>														
26.	Prove that $\sqrt{5}$ is an irrational	3												
27.	(A) Solve the following system of equations graphically: $x + 3y = 6; 2x + 3y = 12$ <b>OR</b> (B) $x$ and $y$ are complementary angles such that $x : y = 1 : 2$ . Express the given information as a system of linear equations in two variables and hence solve it.	3												
28.	If the 3 <sup>rd</sup> and the 9 <sup>th</sup> terms of an AP are 4 and $-8$ respectively, which term of this AP is zero?	3												
29.	A quadrilateral ABCD is drawn to circumscribe a circle, as shown in the given figure.  Show that $\frac{AB + CD}{AD + BC} = 1$	3												
														
30.	Prove the following trigonometric identity: $\frac{\cos \theta}{1 + \sin \theta} + \frac{1 + \sin \theta}{\cos \theta} = 2 \sec \theta$	3												
31.	The mode of the following distribution is 43.75. Find the missing frequency $p$ .	3												
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tbody> <tr> <td style="padding: 5px;"><i>Class Interval</i></td> <td style="padding: 5px;">20-30</td> <td style="padding: 5px;">30-40</td> <td style="padding: 5px;">40-50</td> <td style="padding: 5px;">50-60</td> <td style="padding: 5px;">60-70</td> </tr> <tr> <td style="padding: 5px;"><i>Frequency</i></td> <td style="padding: 5px;">25</td> <td style="padding: 5px;">47</td> <td style="padding: 5px;">62</td> <td style="padding: 5px;"><math>p</math></td> <td style="padding: 5px;">10</td> </tr> </tbody> </table>			<i>Class Interval</i>	20-30	30-40	40-50	50-60	60-70	<i>Frequency</i>	25	47	62	$p$	10
<i>Class Interval</i>	20-30	30-40	40-50	50-60	60-70									
<i>Frequency</i>	25	47	62	$p$	10									
<b>SECTION – D</b> <b>(Long Answers)</b> <b>This section comprises of LA type questions of 5 marks each</b>														
32.	(A) The sum of areas of two squares is $2650 \text{ cm}^2$ . If the sum of their perimeters is 280 cm, find the sides of the two given squares. <b>OR</b> (B) Express the equation $\frac{1}{x} - \frac{1}{x-2} = 3$ ( $x \neq 0, 2$ ) as a quadratic equation in standard form. Hence, find the roots of the quadratic equation so obtained.	5												
33.	Prove that a line is drawn parallel to one side of a triangle to intersect the other two sides in two distinct points, then the other two sides are divided in the same ratio.	5												
34.	The angle of elevation of the top of a building from the foot of the tower is $30^\circ$ and the angle of elevation of the top of the tower from the foot of the building is $60^\circ$ . If	5												

	the tower is 50 m high, find the height of the building.	
35.	<p>(A) A toy is in the form of a cone surmounted on a hemisphere. The cone and hemisphere have the same radii. The height of the conical part of the toy is equal to the diameter of its base. If the radius of the conical part is 5 cm, find the volume of the toy.</p> <p style="text-align: center;"><b>OR</b></p> <p>(B) A cubical block is surmounted by a hemisphere of radius 3.5 cm. What is the smallest possible length of the edge of the cube so that the hemisphere can totally lie on the cube? Find the total surface area of the solid so formed.</p>	5
	<p><b>SECTION E</b></p> <p><b>This section has 3 case study-based questions carrying 4 marks each.</b></p>	
	<b>Case Study-1</b>	
36.	<p>A field is in the form of a rectangle. The coordinates of the rectangular field ABCD are A(10, 10), B(40, 10), C(40, 50) and D(x, y). Anil and Anita, two friends decided to have a race. Anita started from point A and moved to point E along the diagonal AC, where E is the point of intersection of both the diagonals of ABCD. From point E, she moved to point B along the other diagonal DB and then moved back to point A along BA. While Anil started from point C and ran to point A via D along the boundary of the field.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>D (x, y)                      C (40, 50)</p> <p>A (10, 10)                      B (40, 10)</p> </div> <div style="text-align: center;"> </div> </div> <p>Based on the above information, answer the following questions:</p> <p>(i) Find the coordinates of point E.</p> <p>(ii) Find the distance between the points B and C.</p> <p>(iii) (a) Find the coordinates of point D and the distance BD.</p> <p style="text-align: center;"><b>OR</b></p> <p>(b) Find the total distance travelled by Anita.</p>	<p>1</p> <p>1</p> <p>2</p> <p>2</p>
37.	<p><b>RakshaBandhan</b>, is a popular annual rite, or ceremony, which is celebrated in <a href="#">South Asia</a>, and in other parts of the world significantly influenced by Hindu culture. On this day, sisters of all ages tie a talisman, or amulet, called the <i>rakhi</i>, around the wrists of their brothers, symbolically protecting them, receiving a gift in return, and traditionally investing the brothers with a share of the responsibility of their</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>A</p> </div> <div style="text-align: center;"> <p>B</p> </div> </div> <p>potential care..</p> <p style="text-align: center;"><b>Observe the 2 designs of Rakhi</b></p> <p><b>Design A:</b> RakhiA is made with silver wire in the form of a circle with diameter 28mm. The wire used for making 4 diameters which divide the circle into 8 equal parts.</p>	

	<p><b>Design B:</b> RakhiB is made of two colours - Gold and silver. Outer part is made with Gold. The circumference of silver part is 44mm and the gold part is 3mm wide everywhere.</p> <p><b>Refer to Design A</b></p> <p>(1). Find the total length of silver wire required</p> <p>(2) Find the area of each sector of the Rakhi</p> <p><b>Refer to Design B</b></p> <p>(3) (a) Find the circumference of outer part (golden)</p> <p>OR</p> <p>(b) Find Area of silver part ?</p>	<p>1</p> <p>1</p> <p>2</p> <p>2</p>
<p>38.</p>	<p>Anjal took a pack of 52 cards. She kept aside all the black face cards and shuffled the remaining cards well.</p>  <p>Based on the above information answer the following questions.</p> <p>(i) Write the number of total possible outcomes.</p> <p>(ii) She draws a card from the well-shuffled pack of remaining cards. What is the probability that the card is a face card?</p> <p>(iii) (a) Write the probability of drawing a black card.</p> <p>OR</p> <p>(b) What is the probability of getting neither a black card nor an ace card?</p>	<p>1</p> <p>1</p> <p>2</p> <p>2</p>

**KENDRIYA VIDYALAYA SANGATHAN, RAIPUR REGION**  
**FIRST PRE- BOARD EXAM (2025-26)**  
**SUBJECT: MATHEMATICS STANDARD (041)**

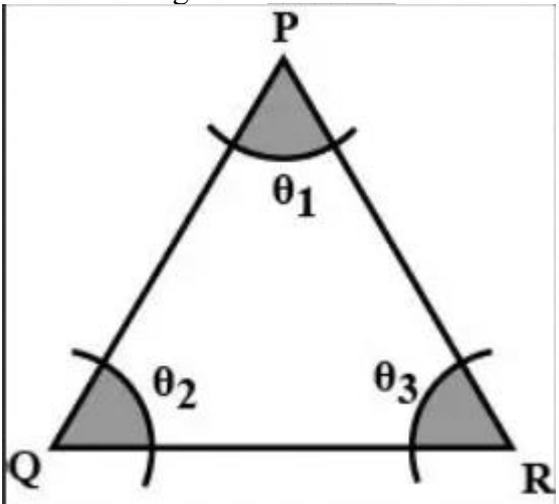
**Class: X**  
**Max. Marks: 80**

**Time: 3 Hours**

**General Instructions:**

- The Question paper consists of 38 questions divided into 5 sections A, B, C, D and E. All the questions are compulsory.
- **Section – A** comprises of 18 Multiple Choice Questions and 2 Assertion & Reasoning Type Questions {Q1 – Q20}. Each question is of 1 mark.
- **Section – B** comprises of 5 Very Short Answer Questions {Q21 – Q25}. Each question is of 2 marks. Internal choice is provided for two questions.
- **Section – C** comprises of Short Answer Questions {Q26 – Q31}. Each question is of 3 marks. Internal choice is provided for two questions.
- **Section – D** comprises of 4 Long Answer Questions {Q32 – Q35}. Each question is of 5 marks. Internal choice is provided for two questions.
- **Section – E** comprises 3 Case Study Based Questions {Q36 – Q38}. Each CSBQ contains 2 sub-questions of 1 mark each & 1 sub- question of 2 marks. Internal choice is provided for 2- mark sub-question in each.
- Rough Diagrams, Rough Work and necessary formulae must be provided along with the answer.
- Mention the question numbers correctly, as mentioned in the question paper. Don't alter them.
- Take  $\pi = \frac{22}{7}$ , wherever required, if not stated.
- Usage of calculators is not allowed.

Q. No.:		M
	<b>SECTION-A (1 X 20 = 20 M)</b>	
Q1.	If two positive integers a and b are written as $a = x^3y^2$ and $b = xy^3$ , where x , y are prime numbers, then the HCF(a, b) is _____. (a) xy      (b) $xy^2$ (c) $x^3y^3$ (d) $x^2y^2$	1
Q2.	The largest number which divides 70 and 125, leaving the remainders 5 and 8 respectively is _____. (a) 13      (b) 65      (c) 875      (d) 1750	1
Q3.	For what value of 'k', (-4) is a zero of the polynomial $p(x) = x^2 - x - (2k + 2)$ ? (a) 3      (b) -3      (c) 9      (d) -9	1
Q4.	For what values of p and q, will the following pair of linear equations have infinitely many solutions? $(2p - 1)x + 3y - 5 = 0$ ; $3x + (q - 1)y - 2 = 0$ (a) $p = 1, q = 2$ (b) $p = 1, q = -2$ (c) $p = \frac{17}{4}, q = \frac{11}{5}$ (d) $p = -1, q = -2$	1
Q5.	The discriminant of the equation $3\sqrt{3}x^2 + 10x + \sqrt{3} = 0$ is _____. (a) 32      (b) 64      (c) 36      (d) 100	1

Q6.	The point which divides the line segment joining the points (8, -9) and (2, 3) in the ratio 1 : 2 internally lies in the _____. (a) I Quadrant (b) II Quadrant (c) III Quadrant (d) IV quadrant	1
Q7.	Three vertices of a parallelogram ABCD are A(1, 4), B(-2, 3) and C(5, 8). The ordinate of the fourth vertex D is _____. (a) 8 (b) 9 (c) 7 (d) 6	1
Q8.	If in two triangles $\Delta ABC$ and $\Delta PQR$ , $\frac{AB}{QR} = \frac{BC}{PR} = \frac{CA}{PQ}$ , then _____. (a) $\Delta PQR \sim \Delta CAB$ (c) $\Delta CBA \sim \Delta PQR$ (b) $\Delta PQR \sim \Delta ABC$ (d) $\Delta PQR \sim \Delta BCA$	1
Q9.	If TP and TQ are two tangents to a circle with Centre O such that $\angle POQ = 110^\circ$ , then $\angle PTQ$ is equal to _____. (a) $60^\circ$ (b) $70^\circ$ (c) $80^\circ$ (d) $90^\circ$	1
Q10.	If two tangents inclined at an angle $60^\circ$ are drawn to a circle of radius 3 cm, then the length of each tangent is equal to _____. (a) $\frac{3\sqrt{3}}{2}$ cm (b) 6 cm (c) 3 cm (d) $3\sqrt{3}$ cm	1
Q11.	If $\Delta ABC$ is right angled at C, then the value of $\sec(A + B)$ is _____. (a) 0 (b) 1 (c) $\frac{2}{\sqrt{3}}$ (d) not defined	1
Q12.	$5 \tan^2 \theta - 5 \sec^2 \theta$ is equal to _____. (a) 1 (b) 5 (c) -5 (d) 10	1
Q13.	The minute hand of a clock is 84 cm long. The distance covered by the tip of the minute hand from 10:10 AM to 10:25 AM is _____. (a) 44 cm (b) 88 cm (c) 132 cm (d) 176 cm	1
Q14.	In the given figure, arcs of radii 14 cm each are drawn with centers P, Q and R. The area of the shaded region is _____ $\text{cm}^2$ . 	1
Q15.	Two cones have their heights in the ratio 1 : 3 and radii in the ratio 3 : 1. The ratio of their volumes is _____. (a) 1 : 3 (b) 3 : 1 (c) 1 : 9 (d) 9 : 1	1
Q16.	The median and mode respectively of a frequency distribution are 26 and 29. Then, its mean is _____. (a) 27.5 (b) 28.4 (c) 24.5 (d) 25.8	1
Q17.	A card is drawn at random from a deck of 52 cards. The Event E is that card is not an ace of heart. The number of outcomes favorable to E is _____. (a) 4 (b) 13 (c) 1 (d) 51	1
Q18.	The probability that a non- leap year selected at random will contain 53 Sundays is _____. (a) $\frac{1}{7}$ (b) $\frac{2}{7}$ (c) $\frac{3}{7}$ (d) $\frac{5}{7}$	1
Q19.	Assertion (A): The number $5^n$ cannot end with the digit 0, where n is a natural number. Reason (R): A number ends in 0, if its prime factorization contains both 2 and 5. (a) Both A & R are true and R is the correct explanation of A.	1

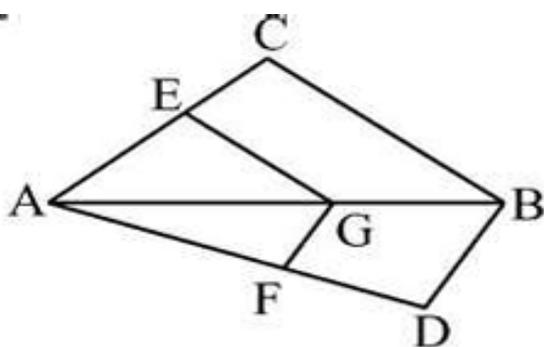
	(b) Both A & R are true but R is not the correct explanation of A. (c) A is true but R is false. (d) A is false but R is true.	
Q20.	Assertion (A): $\sin A$ is the product of $\sin$ and $A$ . Reason (R): In the first quadrant, the value of $\sin A$ increases as $A$ increases. (a) Both A & R are true and R is the correct explanation of A. (b) Both A & R are true but R is not the correct explanation of A. (c) A is true but R is false. (d) A is false but R is true.	1
<b>SECTION – B (2 x 5 = 10 M)</b>		
Q21.	A. Find the 10 <sup>th</sup> term from the last term of the AP: 3, 8, 13, ..., 253.  [or]  B. Find the number of natural numbers between 102 and 998 which are divisible by both 2 and 5.	2
Q22.	In the given figure, $\frac{QR}{QS} = \frac{QT}{PR}$ and $\angle PQR = \angle PRQ$ . Prove that $\Delta PQS \sim \Delta TQR$ .	2
Q23.	Two concentric circles are of radii 7 cm and $r$ cm respectively, where $r > 7$ . A chord of the larger circle, of length 48 cm, touches the smaller circle. Find the value of ' $r$ '.	2
Q24.	If $\tan(A + B) = \sqrt{3}$ , $\tan(A - B) = \frac{1}{\sqrt{3}}$ , $0^\circ < A + B \leq 90^\circ$ , $A > B$ , then find $A$ and $B$ .	2
Q25.	A. Find the area of the minor segment of a circle of radius 14 cm, when the angle of the corresponding sector is $60^\circ$ .  [or]  B. A cow is tied with a rope of length 14 m at the corner of a rectangular field of dimensions 20 m x 16 m. Find the area of the field in which the cow can graze.	2
<b>SECTION – C (3 x 6 = 18 M)</b>		
Q26.	Prove that $(\sqrt{5} + \sqrt{3})$ is an irrational number.	3
Q27.	Find the zeroes of $4\sqrt{5}x^2 - 17x + 3\sqrt{5}$ and verify the relationships between the zeroes and the coefficients of the given polynomial.	3
Q28.	A. Seven times a two – digit number is equal to four times the number obtained by reversing the digits. If the difference between the digits is 3, find the number.  [or]  B. The sum of the numerator and the denominator of a fraction is 4 more than twice the numerator. If 3 is added to each of the numerator and the denominator, their ratio becomes 2 : 3. Find the given fraction.	3
Q29.	Prove that the parallelogram circumscribing a circle is a Rhombus.	3
Q30.	A. Prove that: $(\operatorname{cosec} A - \sin A)(\sec A - \cos A)(\tan A + \cot A) = 1$  [or]  B. Using the Identity $\tan(A - B) = \frac{\tan A - \tan B}{1 + \tan A \tan B}$ find the value of $\tan 15^\circ$ , by choosing any appropriate value of angle for $A$ and $B$ .	3

Q31.	Two different dice are thrown together. Find the probability that the numbers obtained: (a) have a sum less than 6 (b) have a product less than 7 (c) is a pair of odd numbers	3
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**SECTION – D (4 x 5 = 20 M)**

Q32.	An express train takes 1 hour less than a passenger train to travel 132 km between Mysore and Bangalore (without taking into consideration the time they stop at intermediate stations). If the average speed of the express train is 11km/h more than that of the passenger train, find the average speed of the two trains.	5
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Q33.	State and prove the Basic Proportionality Theorem.  In the given figure, if $EG \parallel CB$ and $FG \parallel DB$ , then prove that $\frac{AE}{EC} = \frac{AF}{FD}$ .	5
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Q34.	A. A toy is in the shape of a solid cylinder surmounted by a conical top. If the height and the diameter of the cylindrical part are 21 cm and 40 cm respectively, and the height and the diameter of the cone are 15 cm and 40 cm respectively, then find the total surface area of the toy. [Take $\pi = 3.14$ ] <b>[or]</b> B. Water is flowing at the rate of 15 kmph through a pipe of diameter 14 cm into a cuboidal pond which is 50 m long and 44 m wide. In what time will the level of water in the pond rise by 21 cm?	5
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Q35.	A. Find the Mode of the following data and also write the empirical relation between mean median and mode.	5
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Marks scored	0 - 20	20 - 40	40 - 60	60 - 80	80 - 100
No. of Students	15	18	21	29	17

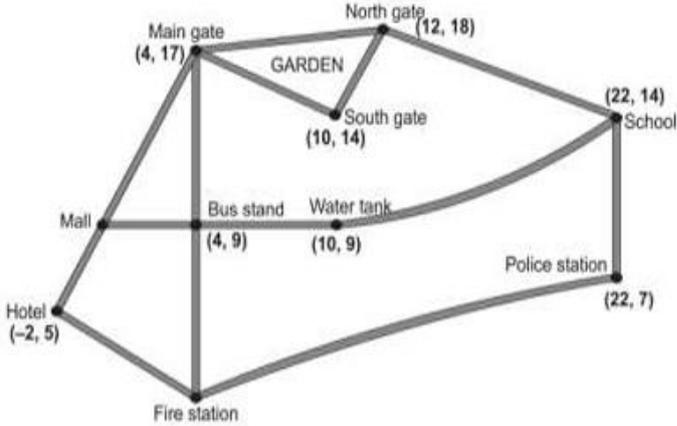
**[or]**

B. Median of the following data is 525. Find the missing frequencies 'x' and 'y', if the sum of all the frequencies is 100.
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Daily Income [in Rupees]	200 - 300	300 - 400	400 - 500	500 - 600	600 - 700	700 - 800
No. of Workers	16	x	17	20	15	Y

**SECTION – E (4 x 3 = 12 M)**

Q36.	A woman borrowed 10,00,000 from her friend and promised to return the borrowed money in monthly instalments beginning from the next month. After one month, she returned 10,000, the next month she returned 15,000, the third month she returned 20,000 and so on, thereby increasing the monthly instalment uniformly.	4
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	<p><b>Based on the information provided above, answer the following questions:</b></p> <p>(i) Find the amount of instalment paid in the tenth month. (1)</p> <p>(ii) In which instalment did she pay Rs. 40,000? (1)</p> <p>(iii) (a) If she returned 7,60,000 in all, how many instalments did she pay? (2)</p> <p style="text-align: center;"><b>[or]</b></p> <p>(b) By which instalment has she returned a total amount of 3,25,000? (2)</p>	
<p>Q37.</p>	<p>Vidya did a survey of her neighborhood and collected the following information.</p> <ol style="list-style-type: none"> <li>The hotel, mall and the main gate of the garden lie in a straight line.</li> <li>The distance between the hotel and the mall is half the distance between the hotel and the main gate of the garden.</li> <li>The bus stand is exactly midway between the main gate of the garden and the fire station.</li> <li>The mall, bus stand and the water tank lie in a straight line.</li> </ol>  <p>The map of Vidya's neighborhood is provided above.</p> <p><b>Based on the information provided, answer the following questions:</b></p> <p>(i) What is the x- coordinate of the Mall's location? (1)</p> <p>(ii) What are the coordinates of the fire station? (1)</p> <p>(iii) (a) A triangular pathway is proposed to be created by joining the mid points of sides of the triangular garden. What will be the total length of the pathway? (2)</p> <p style="text-align: center;"><b>[or]</b></p> <p>(b) Find the area of the triangular garden provided, if it is right-angled at the south gate. (2)</p>	<p>4</p>
<p>Q38.</p>	<p>A Person is observing a multi – storied building from the top of another building of height 20 m. The angle of elevation of the top of the multi- story building from the top of the observation building is <math>60^\circ</math> and the angle of depression of the foot of the multi – storied building from the top of the observation building is <math>30^\circ</math>.</p> <p><b>Based on the information provided above, answer the following questions:</b></p> <p>(i) Provide a Rough diagram depicting the situation mentioned above. (1)</p> <p>(ii) What is the horizontal distance between the two buildings? (1)</p> <p>(iii) (a) Find the total height of the multi-storied building. (2)</p> <p style="text-align: center;"><b>[or]</b></p> <p>(b) Find the difference in the heights of the two buildings. (2)</p>	<p>4</p>

**KENDRIYA VIDYALAYA SANGATHAN, RAIPUR REGION**  
**FIRST PRE-BOARD EXAM (2025-26)**  
**SUBJECT - SCIENCE (086)**

**CLASS: X**

**MAX MARKS: 80**

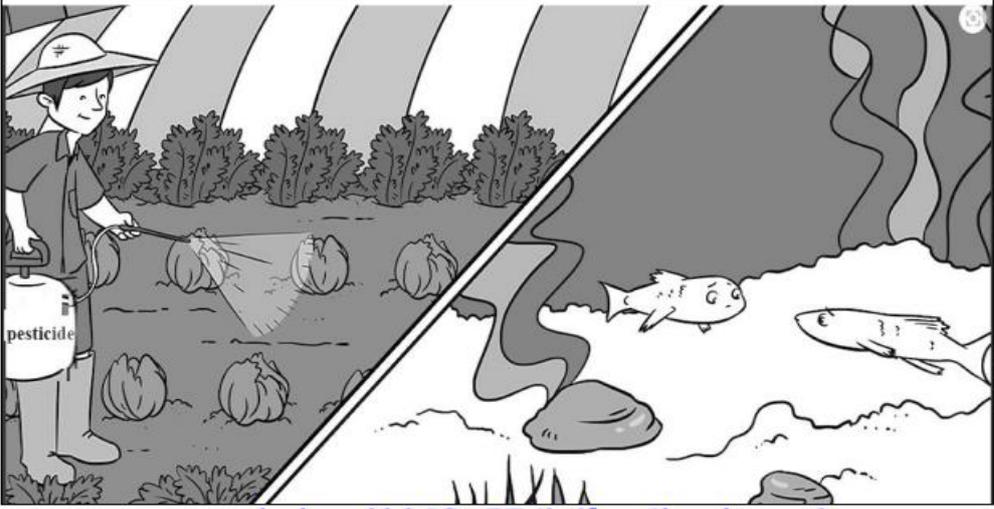
**TIME: 03 HOURS**

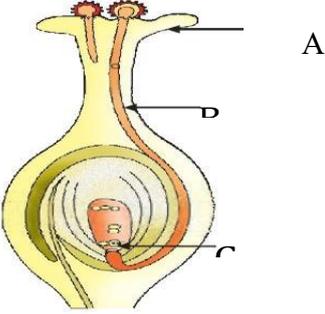
**General Instructions:**

1. All questions would be compulsory. However, an internal choice of approximately 33% would be provided. 50% marks are to be allotted to competency-based questions.
2. This question paper consists of 39 questions in 3 sections. Section A is Biology, Section B is Chemistry and Section C is Physics.
3. All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.

NO.	SECTION A	MAR KS
1.	<p>Secretion of less saliva in mouth will affect the conversion of :</p> <p>A. proteins into amino acids            B. fats into fatty acids and glycerol            C. starch into simple sugars            D. sugars into alcohol</p>	1
2.	<p>Select the correct option from the following statements about the functioning of the human heart.</p> <p>A. Right atrium receives deoxygenated blood from different parts of the body and sends it to pulmonary veins.            B. Left atrium sends oxygenated blood to right ventricle which pumps it to different parts of the body.            C. Right atrium receives deoxygenated blood from the body and sends it to the right ventricle.            D. Left atrium receives oxygenated blood from the pulmonary arteries and sends it to the left ventricle.</p>	1
3.	<p>Observe the given figures A and B. When <i>chhui-mui</i> (sensitive) plant is touched, its leaves fold. This is due to :</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Figure A</p> </div> <div style="text-align: center;">  <p>Figure B</p> </div> </div> <p>A. Hormonal effect            B. Thermal effect            C. Change in amount of water in cells            D. Electromagnetic effect</p>	1

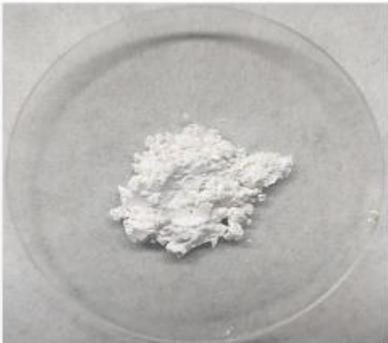
4.	The blood glucose level in a patient was very high. It may be due to inadequate secretion of: A. growth hormone from pituitary gland B. oestrogen from ovary C. insulin from pituitary gland D. insulin from pancreas	1								
5.	Identify from the following a group containing all non-biodegradable substances. A. Leather, Glass, Plastic                      B. Cotton, Wood, Nylon C. DDT, Polyester, Glass                      D. Leather, Silk, Wool	1								
6.	Which are the correct statements related to ozone? (i) Ozone layer helps in increasing the UV radiations reaching earth. (ii) Ozone is a deadly poison. (iii) Ozone layer shields the earth from UV radiations. (iv) Ozone layer prevents UV rays which cause skin cancer. (v) Ozone is formed with the help of Chlorofluorocarbons. A. (i), (ii), (iii) B. (ii), (iii), (iv) C. (iii), (iv), (v) D. (i), (iv), (v)	1								
7	If pea plants with round and green seeds (RRyy) are crossed with pea plants having wrinkled and yellow seeds (rrYY), the seeds developed by the plants of F1 generation will be: A. 50% round and green    B. 75% wrinkled and green C. 100% round and yellow    D. 75% wrinkled and yellow	1								
	The following two questions consist of two statements – Assertion (A) and Reason (R). Answer these questions by selecting the appropriate option given below: A. Both A and R are true, and R is the correct explanation of A. B. Both A and R are true, and R is not the correct explanation of A. C. A is true but R is false. D. A is false but R is true.									
8.	<b>Assertion(A)</b> : The offspring produced by sexual reproduction is likely to adjust better in environmental fluctuation. <b>Reason (R)</b> : During the fusion of gametes there is mixing of genetic material from two parents.	1								
9.	<b>Assertion(A)</b> : The sex of a child is determined by the mother. <b>Reason (R)</b> : Humans have two types of sex chromosomes: XX and XY.	1								
10.	(I)The transport system in plants is relatively slower than in animals. Give reasons. (II)State the role of phloem in the transport of materials in plants. OR Besides minimizing the loss of blood, why is it essential to plug any leak in a blood vessel? Name the component of blood which helps in this process and state how this component performs this Function.	2								
11.	Differentiate between alveoli and nephron on the basis of the following points: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">S. No.</th> <th style="width: 30%;">Feature</th> <th style="width: 20%;">Alveoli</th> <th style="width: 20%;">Nephron</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Structure and location</td> <td></td> <td></td> </tr> </tbody> </table>	S. No.	Feature	Alveoli	Nephron	1	Structure and location			2
S. No.	Feature	Alveoli	Nephron							
1	Structure and location									

	2	Function		
12.	<p>The cartoon below addresses a growing concern:</p>  <p>What impact will the process shown in the image have on Humans if they occupy the last trophic level? Explain.</p>			2
13	<p>(I) Define hormone.            (II)“Hormones should be secreted in precise quantities. We have a feedback mechanism through which this is done.” With the help of an example justify the statement.</p>			1+2=3
14	<p>A pure pea plant bearing terminal flowers was cross-pollinated with a pure plant having axillary flowers. In F1 generation, plants with axial flowers only were obtained. F1 generation plants are self-pollinated and F2 generation is obtained.</p> <p>(I)Work out the pattern of inheritance in this case.            (II)What will be the ratio of plants obtained in F2 generation ?</p>			2+1=3
15	<p>The maintenance functions of all living organisms must go on even when they are not doing anything particular. Even when we are just sitting in a class or even asleep, this maintenance job has to go on. These maintenance processes require energy to prevent damage and break-down of cells and tissues, which is obtained by the individual organism from the food prepared by the autotrophs, called producers.</p> <p>(I)Name and define the process by which green plants prepare food.            (II)Write chemical equation involved in the above process.            (III)State in proper sequence the events that occur in synthesis of food by desert plants.</p>			1+1+2

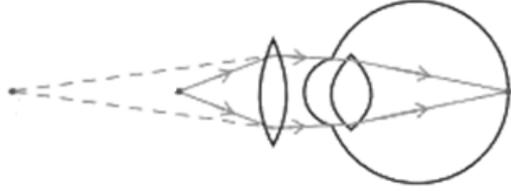
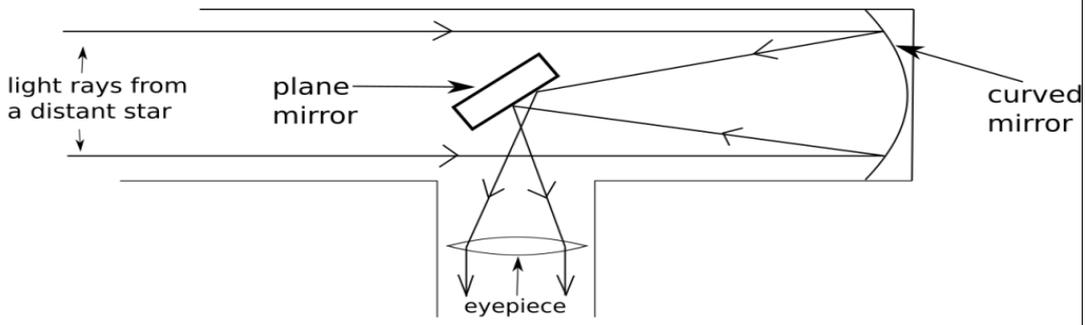
16	<p>Differentiate between self-pollination and cross-pollination. Identify A, B and C in the diagram given below and write one function of each.</p> 	2+3
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**SECTION B**

17.	<p>Identify 'p', 'q' and 'r' in the following balanced reaction  <math display="block">p \text{ Pb}(\text{NO}_3)_2(\text{s}) \xrightarrow{\text{Heat}} q \text{ PbO}(\text{s}) + r \text{ NO}_2(\text{g}) + \text{O}_2(\text{g})</math> A. 2,2,4  B. 2,4,2  C. 2,4,4  D. 4,2,2</p>	1
18	<p>4. Consider the following reactions :</p> <p>(i) Dilute hydrochloric acid reacts with sodium hydroxide.  (ii) Magnesium oxide reacts with dilute hydrochloric acid.  (iii) Carbon dioxide reacts with sodium hydroxide. It is found that in each case :</p> <p>(A) Salt and water is formed.  (B) Neutral salts are formed.  (C) Hydrogen gas is formed.  (D) Acidic salts are formed.</p>	1
19	<p>The warning sign shown in the given figure must invariably be displayed/pasted on the containers which contain hydroxide of :</p>  <p>(A) Aluminium  (B) Calcium  (C) Sodium  (D) Magnesium</p>	1
20	<p>Aluminium powder is used in thermit welding because :</p> <p>A. Its reaction with iron is highly exothermic.  B. When it is heated with iron (III) oxide, molten iron is obtained.  C. When it is heated with iron (III) oxide, molten aluminium oxide is obtained to</p>	1

	<p>join railway tracks. D. Its melting point is low as compared to iron and a molten alloy of iron and aluminium is formed on heating which is used to join railway tracks.</p>	
21	<p>When 50g of lead powder is added to 300 ml of blue copper sulphate solution, after a few hours, the solution becomes colourless. This is an example of A. Combination reaction B. Decomposition reaction C. Displacement reaction D. Double displacement reaction</p>	1
22	<p>The electronic configuration of three elements X, Y and Z are X- 2, 8, 7; Y- 2,8, 2; and Z - 2, 8 A. Y and Z are metals B. Y and X are non-metals C. X is a non -metal and Y is a metal D. Y is a non-metal and Z is a metal</p>	1
23	<p>Which of the following is an endothermic reaction? A. Burning of candle. B. Cooking of food. C. Decomposition of Vegetable matter. D. Reaction of Sodium with air</p>	1
24	<p>Assertion(A) : Carbon compounds can form chain, branched and ring structures. Reason (R) : Carbon exhibits the property of catenation. Answer the question by selecting the appropriate option given below: A. Both A and R are true, and R is the correct explanation of A. B. Both A and R are true, and R is not the correct explanation of A. C. A is true but R is false. D. A is false but R is true.</p>	1
25	<p>(a)In common practice silver is recovered from silver nitrate solution by the use of copper metal. Name the type of reaction that takes place in this process and give the chemical equation of the reaction involved. (b)Name the method used for refining silver.</p>	2
26	<p>A. Anirudh took two metal oxides; aluminium oxide and magnesium oxide as shown in the pictures given below. But he forgot to label them. How will you guide/ help Anirudh to identify the oxides and label them?</p> <div style="display: flex; justify-content: space-around;">   </div> <p>B. In an activity Aishu was given two substances; Copper Sulphide (Cu<sub>2</sub>S) and Copper Oxide (Cu<sub>2</sub>O) to obtain copper from these compounds. She was able to extract Copper successfully. Illustrate with the help of chemical equations how Aishu might have completed the activity</p>	1+2

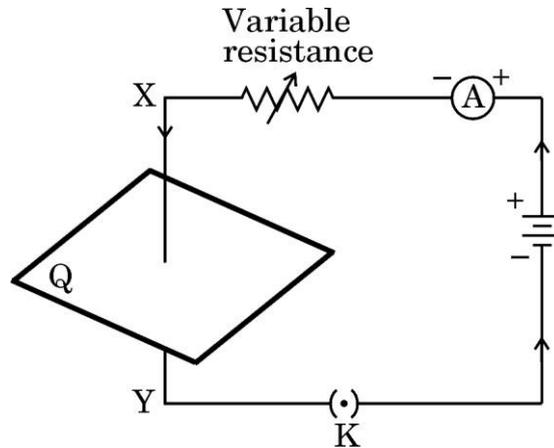
27	(I) Name two metals which react violently with cold water. List any three observations which a student notes when these metal are dropped in a beaker containing water. (II) Write a test to identify the gas evolved (if any) during the reaction of these metals with water.	2+1
28	Corrosion is the phenomenon of deterioration of surface of metal in presence of air and moisture. It is a natural process and in the presence of a moist atmosphere, chemically active metals get corroded. This is an oxidation reaction. Rusting is the process where iron corrodes due to exposure to the atmosphere. The main circumstance of corrosion occurs with iron because it is a structural material in construction, bridges, buildings, rail transport, ships, etc. Aluminium is also an important structural metal, but even aluminium undergoes oxidation reactions. However, aluminium doesn't corrode or oxidize as rapidly as its reactivity suggests. Copper (Cu) corrodes and forms a basic green carbonate. (I)What is rusting? (II)Corrosion is (a) a redox reaction (b) a reduction reaction (c) a displacement reaction (d) an oxidation reaction (III)Which two metals do not corrode easily? (IV)Write the chemical name of the compound formed on corrosion of silver.	4
29	(i)Give reason why carbon forms compounds mainly by covalent bonding. (ii)Why do covalent compounds have low melting and boiling points. (iii)Give reason for the following : I. Covalent compounds are bad conductors of electricity. II. Carbon shows catenation III .why graphite is good conductor of electricity	5
<b>SECTION -C</b>		
30	Three resistors of 1 $\Omega$ , 2 $\Omega$ and 3 $\Omega$ are connected in parallel. The combined resistance of the three resistors should be (a) greater than 3 $\Omega$ (b) less than 1 $\Omega$ (c) equal to 2 $\Omega$ (d) between 1 $\Omega$ and 3 $\Omega$	1
31	The part of the human eye which can modify the curvature of the eye lens to some extent is : A. Pupil B. Cornea C. Ciliary muscles D. Aqueous humour	1
32	Assertion (A) : Heater wire must have high resistance and high melting point. Reason (R) : If resistance is high, the electric conductivity will be less. Answer the question by selecting the appropriate option given below: A. Both A and R are true, and R is the correct explanation of A. B. Both A and R are true, and R is not the correct explanation of A. C. A is true but R is false. D. A is false but R is true.	1

33	<p>A ray of light after refraction from a convex lens emerges parallel to its principal axis.</p> <ol style="list-style-type: none"> <li>I. Draw a labelled ray diagram to show it.</li> <li>II. In this case, the incident ray before refraction from the lens passes through a</li> <li>III. point on its principal axis. Name the point.</li> </ol>	2
34	<p>How and why is an electric fuse used in an electric circuit? Briefly describe its function.</p>	2
35	<p>A. State the relationship between the resistance <math>R</math> of a wire to its length <math>l</math> and cross-sectional area <math>A</math>. Use the mathematical symbols to arrive at the final formula.          B. Using the formula define the resistivity of a material.</p>	3
36	<p>Draw a ray diagram to show the path of the reflected ray in each of the following cases. A ray of light incident on a convex mirror :</p> <ol style="list-style-type: none"> <li>(a) strikes at its pole making an angle <math>\theta</math> from the principal axis.</li> <li>(b) is directed towards its principle focus.</li> <li>(c) is parallel to its principal axis.</li> </ol>	3
37	 <p>The above image shows a corrective measure for a particular defect of vision.</p> <ol style="list-style-type: none"> <li>(i) Identify the defect of vision and state what kind of lens is used to correct this deficiency.</li> <li>(ii) Draw and label a ray diagram that shows the defect of vision in the above case before correction.</li> </ol> <p style="text-align: center;">OR</p> <ol style="list-style-type: none"> <li>(i) What is dispersion of light?</li> <li>(ii) Explain the condition under which dispersion happens?</li> <li>(iii) Give one reason that causes presbyopia.</li> </ol>	3
38	 <p>The above image is that of a reflecting telescope. Reflecting telescopes revolutionised our ways of looking into the sky. They employ mirrors to gather and focus light, rather than relying solely on lenses as in their refracting counterparts. These telescopes utilise precisely shaped and polished mirrors to capture incoming light and reflect it to a focal point, where it forms an image for observation.</p>	4

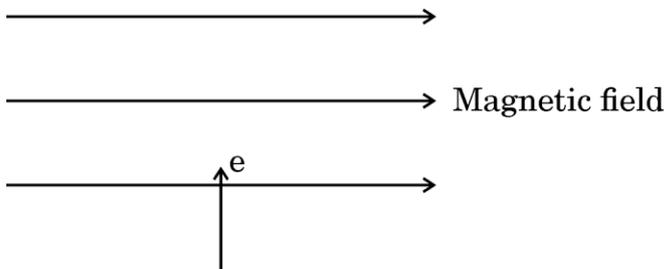
- A. What kind of image of the star is seen by the observer at the eyepiece?  
 B. What kind of mirror is used in this reflecting telescope?  
 C. Explain with reason what kind of optical device (type of lens or mirror) that is used at the eyepiece.

39 The given figure shows the current passing through the straight conductor XY.

5



- I. Copy the diagram and draw the magnetic field lines when current flows from conductor X to Y.
- II. Name and state the rule used in determining the direction of the magnetic field lines in the situation given above.
- III. State Fleming's left hand rule. Using this rule, determine the direction of force applied on an electron entering a uniform magnetic field as shown in the figure.



OR

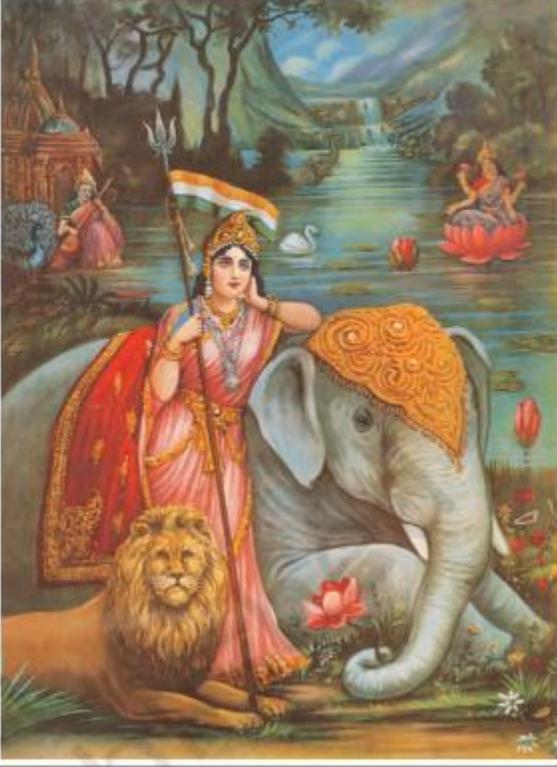
- I. Define the term solenoid. Draw the pattern of the magnetic field lines in and around a current carrying straight solenoid. Mark on the pattern the (i) direction of current, (ii) direction of field lines near the ends of the solenoid, and (iii) region where the magnetic field is uniform.
- II. How would you make an electromagnet using a current carrying solenoid ?

**सामान्य निर्देश:**

1. प्रश्नपत्र में 38 प्रश्न हैं। सभी प्रश्न अनिवार्य हैं।
2. प्रश्नपत्र में चार खंड हैं - A- इतिहास, B- भूगोल, C- राजनीति विज्ञान और D- अर्थशास्त्र।
3. प्रत्येक खंड 20 अंकों का है और इसमें MCQ, VSA, SA, LAs और CBQ हैं।
4. अति लघु उत्तरीय प्रश्न (VSA), प्रत्येक 2 अंक का है। प्रत्येक प्रश्न का उत्तर 40 शब्दों से अधिक नहीं होना चाहिए।
5. लघु उत्तरीय प्रश्न (SA), प्रत्येक 3 अंक का है। प्रत्येक प्रश्न का उत्तर 60 शब्दों से अधिक नहीं होना चाहिए।
6. दीर्घ उत्तरीय प्रश्न (LA), प्रत्येक 5 अंक का है। प्रत्येक प्रश्न का उत्तर 120 शब्दों से अधिक नहीं होना चाहिए।
7. केस आधारित प्रश्न (CBQ) हैं जिनमें तीन उप-प्रश्न हैं और प्रत्येक 4 अंकों का है। प्रत्येक प्रश्न का उत्तर 100 शब्दों से अधिक नहीं होना चाहिए।
8. मानचित्र-आधारित प्रश्न 5 अंकों के हैं और दो भागों में विभाजित हैं - प्रश्न 9. खंड - इतिहास (2 अंक) और प्रश्न 19. खंड B - भूगोल (3 अंक)
9. प्रश्नपत्र में कोई समग्र विकल्प नहीं है। हालाँकि, कुछ प्रश्नों में आंतरिक विकल्प दिए गए हैं। ऐसे प्रश्नों में से केवल एक विकल्प का ही प्रयास करना होगा।
10. इसके अतिरिक्त, कृपया ध्यान दें कि दृश्य इनपुट (मानचित्र आदि) वाले प्रश्नों के स्थान पर दृष्टिबाधित उम्मीदवारों के लिए एक अलग प्रश्न दिया गया है। ऐसे प्रश्न केवल दृष्टिबाधित उम्मीदवारों द्वारा ही हल किए जाने हैं।

**General Instruction:**

1. There are 38 questions in the Question paper. All questions are compulsory.
2. The question paper has Four Sections – A-History, B-Geography C- Political Science, and D-Economics.
3. Each Section is of 20 Marks and has MCQs, VSA, SA, LAs and CBQ.
4. Very Short Answer Type Questions (VSA), carry 2 marks each. Answers to each question should not exceed 40 words.
5. Short Answer Type Questions (SA), carry 3 marks each. Answers to each question should not exceed 60 words.
6. Long answer type questions (LA), carry 5 marks each. Answers to each question should not exceed 120 words.
7. There are case based questions (CBQ) with three sub questions and are of 4 marks each. Answers to each question should not exceed 100 words.
8. The map-based questions carry 5 marks with two parts- Q9. In Section - History (2 marks) and Q19. In Section B -Geography (3 marks)
9. There is no overall choice in the question paper. However, an internal choice has been provided in few questions. Only one of the choices in such questions must be attempted.
10. In addition to this, NOTE that a separate question has been provided for Visually Impaired candidates in lieu of questions having visual inputs map etc. Such questions are to be attempted by Visually Impaired candidates only.

QN	SECTION (A) HISTORY (20 Marks)	MARKS
1	<p>एक 'आदर्श समाज' है –</p> <p>(i) एक समाज जो उदार शासक के अधीन है  (ii) एक समाज जिसका अस्तित्व सम्भव नहीं है  (iii) एक समाज जो कुछ चुनिंदा बुद्धिमान व्यक्तियों के अधीन है  (iv) एक समाज जो संसदीय लोकतंत्र के अधीन है</p> <p>(A) (i) और (ii) (B) (ii) और (iii) (C) केवल (ii) (D) केवल (iii)</p> <p>A 'Utopian Society' is</p> <p>(i) A society under a benevolent monarchy  (ii) A society that is unlikely to ever exist  (iii) A society under the control of a chosen few wise men  (iv) A society under Parliamentary Democracy</p> <p>(A) (i) and (ii) (B) (ii) and (iii) (C) (ii) only (D) (iii) only</p>	1
2	 <p>Source: India and the Contemporary World, NCERT, 2025-26  निम्नलिखित विकल्पों में से इस चित्र के चित्रकार का नाम पहचानिए।</p> <p>(A) अबनीन्द्र नाथ ठाकुर (B) रवीन्द्र नाथ ठाकुर  (C) राजा रवि वर्मा (D) समन्त दास गुप्ता</p> <p><b>नोट: निम्नलिखित प्रश्न केवल दृष्टिबाधित अभ्यर्थियों के लिए है (प्रश्न 2 के स्थान पर)।</b>  कुछ घटनाएँ नीचे दी गई हैं। उपयुक्त कालानुक्रमिक क्रम चुनिए –</p> <p>(i) साइमन कमीशन का भारत आगमन  (ii) कांग्रेस के लाहौर अधिवेशन में पूर्ण स्वराज की माँग  (iii) भारत सरकार अधिनियम, 1919  (iv) चम्पारण सत्याग्रह</p> <p>विकल्प:</p> <p>(A) (iii) - (ii) - (iv) - (i) (B) (i) - (ii) - (iv) - (iii)  (C) (ii) - (iii) - (i) - (iv) (D) (iv) - (iii) - (i) - (ii)</p> <p>Identify the name of the painter of this painting from the following options.</p> <p>(A) Abhahindra Nath Tagore (B) Rabindra Nath Tagore  (C) Raja Ravi Verma (D) Samant Das Gupta</p> <p><b>Note: The following Question is for Visually Impaired Candidates only in lieu of</b></p>	1

	<p><b>QN 2</b>          Certain events are given below. Choose the appropriate chronological order:          (i) Coming of Simon Commission to India          (ii) Demand of Purna Swaraj in Lahore Session of INC          (iii) Government of India Act, 1919          (iv) Champaran Satyagraha          Options:          (A) (iii) - (ii) - (iv) - (i) (B) (i) - (ii) - (iv) - (iii)          (C) (ii) - (iii) - (i) - (iv) (D) (iv) - (iii) - (i) - (ii)</p>	
3	<p>प्राचीन काल में सिल्क मार्ग किन दो क्षेत्रों को जोड़ता था?          (A) यूरोप और एशिया (B) अफ्रीका और एशिया          (C) उत्तरी अमेरिका और दक्षिणी अमेरिका (D) ऑस्ट्रेलिया और अंटार्कटिका          The Silk Route connected which two regions during ancient times?          (A) Europe and Asia (B) Africa and Asia          (C) North America and South America (D) Australia and Antarctica</p>	1
4	<p>मुद्रण तकनीक का सबसे पहला प्रकार _____, जापान और कोरिया में विकसित हुआ था, जो हस्त मुद्रण की एक प्रणाली थी।          (A) भारत (B) ब्रिटेन (C) चीन (D) जर्मनी          The earliest kind of print technology was developed in _____, Japan and Korea, which was a system of hand printing.          (A) India (B) Britain (C) China (D) Germany</p>	1
5	<p>(A) प्राचीन काल से यात्री, व्यापारी, पुजारी और तीर्थयात्री विशाल दूरियाँ क्यों तय करते थे? अथवा          (B) हमारे चार सामान्य खाद्य पदार्थों के नाम बताइए, जिन्हें हमारे पूर्वज लगभग पाँच शताब्दी पहले तक नहीं जानते थे।          (A) Why did the travelers, traders, priests and pilgrims travel vast distances from ancient times?          OR          (B) Mention any four of our common foods that were not known to our ancestors until about five centuries ago.</p>	2
6	<p>(A) असहयोग आंदोलन वापस लेने के क्या कारण थे? अथवा          (B) सविनय अवज्ञा आंदोलन में महिलाओं की भूमिका स्पष्ट कीजिए।          (A) What were the reasons to withdraw the Non-cooperation Movement?          OR          (B) Explain the role of women in Civil Disobedience Movement.</p>	3
7	<p>(A) फ्रांसीसी क्रांतिकारियों द्वारा फ्रांसीसी जनता में सामूहिक पहचान की भावना उत्पन्न करने के लिए शुरू किए गए किसी पाँच उपायों का वर्णन कीजिए। अथवा          (B) “यूरोप में राष्ट्र की अवधारणा को बनाने में संस्कृति ने एक महत्वपूर्ण भूमिका निभाई।” इस कथन को उदाहरणों सहित स्पष्ट कीजिए।          (A) Describe any five measures which were introduced by the French Revolutionaries to create a sense of collective identity amongst the French people.          OR          (B) “Culture played an important role in creating the idea of nation in Europe.” Support the statement with examples.</p>	5
8	<p><b>निम्नलिखित गद्यांश पढ़िए और प्रश्नों के उत्तर दीजिए :</b>          ग्रामों में घूमते हुए फेरीवालों को पुस्तकों की बिक्री के लिए पुस्तक विक्रेताओं द्वारा नियुक्त किया गया था। वे छोटे-छोटे पुस्तिकाएँ लेकर चलते थे। इनमें पंचांग या धार्मिक कैलेंडर, साथ ही लोकगीत और लोककथाएँ होती थीं। परंतु मनोरंजन हेतु अन्य प्रकार की पठन सामग्री भी साधारण पाठकों तक पहुँचने लगी। इंग्लैंड में, पेननी चैपबुक्स छोटे फेरीवाले जिन्हें चैपमेन कहा</p>	1+1+2

	<p>जाता था, द्वारा बेची जाती थीं। इनकी कीमत केवल एक पेननी होती थी ताकि गरीब लोग भी इन्हें खरीद सकें। फ्रांस में इन्हें “बिब्लियोथेक ब्लू” कहा जाता था, जो सस्ते कागज़ पर छपी छोटी पुस्तिकाएँ थीं और नीले कवर में बँधी होती थीं। इसके अलावा, चार से छह पृष्ठों पर छपी रोमांस कथाएँ और भूतकाल की कहानियों पर आधारित ‘इतिहास’ भी उपलब्ध थे। पुस्तकें विभिन्न आकारों की होती थीं और अनेक उद्देश्यों व रुचियों की पूर्ति करती थीं। आवधिक प्रेस का विकास अठारहवीं शताब्दी के आरंभ से हुआ, जिसमें समसामयिक घटनाओं की जानकारी के साथ मनोरंजन भी सम्मिलित था। समाचार पत्र और पत्रिकाएँ युद्ध और व्यापार की सूचनाएँ देती थीं, साथ ही अन्य स्थानों के समाचार भी पहुँचाती थीं।</p> <p>19.1 फेरीवाले किस प्रकार की पुस्तकें बिक्री के लिए लेकर चलते थे?</p> <p>19.2 उन्नीसवीं शताब्दी में पेननी चैपबुक्स का क्या उद्देश्य था?</p> <p>19.3 आवधिक प्रेस क्या थे और इनका विकास कब हुआ?</p> <p><b>Read the given text and answer the following questions:</b></p> <p>Booksellers employed peddlers who roamed around villages, carrying little books for sale. There were almanacs or ritual calendars, along with ballads and folktales. But other forms of reading matter, largely for entertainment, began to reach ordinary readers as well. In England, penny chapbooks were carried by petty peddlers known as chapmen, and sold for a penny, so that even the poor could buy them. In France, were the “Biliotheque Bleue”, which were low-priced small books printed on poor quality paper, and bound in cheap blue covers. Then there were the romances, printed on four to six pages, and the more substantial ‘histories’ which were stories about the past. Books were of various sizes, serving many different purposes and interests. The periodical press developed from the early eighteenth century, combining information about current affairs with entertainment. Newspapers and journals carried information about wars and trade, as well as news of developments in other places.</p> <p>19.1 What type of books did the peddlers carried for sell?</p> <p>19.2 What purpose did penny chap book serve during 19th century?</p> <p>19.3 What were periodical presses and when did they develop?</p>	
9	<p><b>MAP SKILL-BASED QUESTION (2 marks)</b></p> <p>भारत के रेखांकित मानचित्र पर A और B नामक दो स्थानों को दर्शाया गया है। इन्हें पहचानिए और मानचित्र पर दी गई रेखाओं पर उनके सही नाम लिखिए।</p> <p>(A) वह स्थान जहाँ 1927 में भारतीय राष्ट्रीय कांग्रेस का अधिवेशन हुआ था।</p> <p>(B) वह स्थान जहाँ गांधीजी ने नील की खेती की दमनकारी प्रथा के विरुद्ध सत्याग्रह किया था।</p> <p><b>नोट: निम्नलिखित प्रश्न केवल दृष्टिबाधित अभ्यर्थियों के लिए है (प्रश्न 9 के स्थान पर)।</b></p> <p>(A) वह स्थान जहाँ कपड़ा मिल मजदूरों का सत्याग्रह हुआ था।</p> <p>(B) वह स्थान जहाँ सितम्बर 1920 में भारतीय राष्ट्रीय कांग्रेस का अधिवेशन हुआ था।</p> <p>Two places A and B have been marked on the given outline map of India. Identify them and write their correct names on the lines marked on the map.</p> <p>(A) The place where the Indian National Congress Session was held in 1927.</p> <p>(B) The place where a Satyagraha was launched against the oppressive Indigo plantation system by Gandhi Ji .</p> <p><b>Note: The following question is for Visually Impaired Candidates only in lieu of Question 9.</b></p> <p>(A) The place where Satyagraha of Cotton Mill Workers was held</p> <p>(B) The place where the Indian National Congress Session was held in September 1920.</p>	1+1
	<b>SECTION (B) GEOGRAPHY (20 Marks)</b>	
10	<p>निम्नलिखित प्रश्न में दो कथन दिए गए हैं – एक अभिकथन (Assertion – A) और दूसरा कारण (Reason – R)। कथनों को पढ़िए और उचित विकल्प चुनिए।</p> <p><b>अभिकथन (A):</b> संसाधन मानव जीवन के लिए अत्यंत महत्वपूर्ण हैं।</p>	1

	<p><b>कारण (R):</b> मानव ने उनका विवेकपूर्ण उपयोग किया जिससे संसाधनों की कमी हो गई। विकल्प: (A) A और R दोनों सत्य हैं, और R, A की सही व्याख्या है। (B) A और R दोनों सत्य हैं, लेकिन R, A की सही व्याख्या नहीं है। (C) A सत्य है लेकिन R असत्य है। (D) A असत्य है लेकिन R सत्य है।</p> <p>Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option. <b>Assertion (A):</b> Resources are vital for human survival. <b>Reason (R):</b> Human used them judiciously that led to depletion of resources. Options: (A) Both A and R are true, and R is the correct explanation of A. (B) Both A and R are true, but R is not the correct explanation of A. (C) A is true but R is false. (D) A is false but R is true</p>	
11	<p>कक्षा की एक परीक्षा में, शिक्षक ने अंचल से कहा कि वह संसाधनों को 'उत्पत्ति के आधार पर' वर्गीकृत करे। उसने उत्तर दिया: (i) अजैविक संसाधन जैवमंडल से प्राप्त होते हैं और इनमें जीवन होता है, जैसे मानव, वनस्पति और जीव-जंतु। (ii) जैविक संसाधन वे सभी चीजें हैं जो निर्जीव वस्तुओं से बनी होती हैं, जैसे चट्टानें और धातुएँ। सही कथन की पहचान कीजिए: (A) (i) और (ii) दोनों सत्य हैं। (B) (i) और (ii) दोनों असत्य हैं। (C) (i) सही है लेकिन (ii) गलत है। (D) (i) गलत है और (ii) सही है।</p> <p>In a class test, a teacher asked Anchal to classify resources 'On the basis of origin' for which she answered: - (i) Abiotic resources are obtained from the biosphere and have life, such as human beings, flora &amp; fauna. (ii) Biotic resources are all those things which are composed of non-living things, like rocks and metals. Identify the correct statement. (A) Both (i) and (ii) are true. (B) Both (i) and (ii) are false. (C) Option (i) is correct but (ii) is incorrect. (D) Option (i) is incorrect (ii) is correct.</p>	1
12	<p>निम्नलिखित प्रश्न में दो कथन दिए गए हैं – एक अभिकथन (Assertion – A) और दूसरा कारण (Reason – R)। कथनों को पढ़िए और सही विकल्प चुनिए। <b>अभिकथन (A):</b> संयुक्त वन प्रबंधन (JFM) स्थानीय (ग्राम) संस्थाओं के गठन पर निर्भर करता है, जो अधिकांशतः वन विभाग द्वारा प्रबंधित अपदूषित वन भूमि पर संरक्षण गतिविधियाँ करते हैं। <b>कारण (R):</b> यह कार्यक्रम औपचारिक रूप से 1988 से अस्तित्व में है, जब ओडिशा राज्य ने संयुक्त वन प्रबंधन के लिए पहला प्रस्ताव पारित किया। विकल्प: (A) A और R दोनों सत्य हैं, और R, A की सही व्याख्या है। (B) A और R दोनों सत्य हैं, लेकिन R, A की सही व्याख्या नहीं है। (C) A सत्य है लेकिन R असत्य है। (D) A असत्य है लेकिन R सत्य है।</p> <p>Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option. <b>Assertion (A):</b> Joint Forest Management (JFM) depends on the formation of local (village) institutions that undertake protection activities mostly on degraded forest land managed by the forest department. <b>Reason (R):</b> The programme has been in formal existence since 1988 when the state of</p>	1

	<p>Odisha passed the first resolution for joint forest management.</p> <p>Options:</p> <p>(A) Both A and R are true, and R is the correct explanation of A.</p> <p>(B) Both A and R are true, but R is not the correct explanation of A.</p> <p>(C) A is true but R is false.</p> <p>(D) A is false but R is true</p>	
13	<p>चिपको आंदोलन का उद्देश्य क्या था?</p> <p>(A) मानव अधिकार (B) राजनीतिक अधिकार (C) कृषि विस्तार (D) वनों का संरक्षण</p> <p>What was the aim of Chipko Movement?</p> <p>(A) Human rights (B) Political rights</p> <p>(C) Agricultural expansion (D) Forest conservation</p>	1
14	<p>निम्नलिखित प्रश्न में दो कथन दिए गए हैं – एक अभिकथन (Assertion – A) और दूसरा कारण (Reason – R)। कथनों को पढ़िए और सही विकल्प चुनिए।</p> <p><b>अभिकथन (A):</b> जल संसाधनों की उपलब्धता स्थान और समय के अनुसार भिन्न होती है, मुख्यतः मौसमी और वार्षिक वर्षा के भिन्न होने के कारण।</p> <p><b>कारण (R):</b> इसलिए अनुमान लगाया गया है कि 2025 तक लगभग दो अरब लोग पूर्ण जल संकट में जी रहे होंगे।</p> <p>विकल्प:</p> <p>(A) A और R दोनों सत्य हैं और R, A की सही व्याख्या है।</p> <p>(B) A और R दोनों सत्य हैं लेकिन R, A की सही व्याख्या नहीं है।</p> <p>(C) A सत्य है लेकिन R असत्य है।</p> <p>(D) A असत्य है लेकिन R सत्य है।</p> <p>In the question given below, there are two statements marked as Assertion (A) and Reason (R). Read the statements and chose the correct option:</p> <p><b>Assertion (A):</b> The availability of water resources varies over space and time, mainly due to the variations in seasonal and annual precipitation.</p> <p><b>Reason (R):</b> It is therefore predicted that by 2025, nearly two billion people will live in absolute water scarcity.</p> <p>Options:</p> <p>(A) Both A and R are true and R is the correct explanation of A.</p> <p>(B) Both A and R are true and R is not the correct explanation of A.</p> <p>(C) A is true but R is false.</p> <p>(D) A is false but R is true.</p>	1
15	<p>निम्नलिखित कथनों से कृषि का प्रकार पहचानिए:</p> <p>(i) इस प्रकार की कृषि छोटे-छोटे भूखंडों पर हाथ के औज़ार जैसे कुदाल, दाव और खोदने की छड़ें तथा परिवार/समुदाय की श्रम शक्ति का उपयोग करके की जाती है।</p> <p>(ii) इस प्रकार की खेती मानसून, मिट्टी की प्राकृतिक उर्वरता और अन्य पर्यावरणीय परिस्थितियों पर निर्भर करती है।</p> <p>विकल्प:</p> <p>(A) आदिम उपजीविका खेती (B) सघन उपजीविका खेती</p> <p>(C) वाणिज्यिक खेती (D) उपरोक्त में से कोई नहीं</p> <p>Identify the type of farming from the following statements:</p> <p>(i) This type of agriculture is practiced on small patches of tools like hoe, dao and digging sticks and family/community labour.</p> <p>(ii) This type of farming depends upon monsoon, natural fertility of the soil and suitability of other environmental conditions to the crops grown.</p> <p>(A) Primitive subsistence farming (B) Intensive subsistence farming</p> <p>(C) Commercial farming (D) None of the above</p>	1

16	<p>वृक्षारोपण के विकास में महत्वपूर्ण भूमिका निभाने वाले किन्हीं दो कारकों का उल्लेख कीजिए। Mention any two factors which play an important role in the development of plantations..</p>	2
17	<p>(A) "खनिजों का संरक्षण आज की आवश्यकता है" – इस कथन को पाँच तथ्यों के साथ स्पष्ट कीजिए। अथवा (B) "भारत खनिजों में काफी समृद्ध और विविधतापूर्ण है। हालांकि, ये असमान रूप से वितरित हैं।" – इसे स्पष्ट कीजिए। (A) "Conservation of minerals is the need of the hour"- Explain the statement with five facts. OR (B) "India is fortunate to have fairly rich and varied mineral resources. However, these are unevenly distributed." Explain.</p>	5
18	<p><b>गद्यांश पढ़िए और निम्नलिखित प्रश्नों के उत्तर दीजिए:</b> इलेक्ट्रॉनिक्स उद्योग में ट्रांजिस्टर सेट से लेकर टेलीविजन, टेलीफोन, मोबाइल दूरसंचार, टेलीफोन एक्सचेंज, रडार, कंप्यूटर और दूरसंचार उद्योग के लिए आवश्यक अन्य कई उपकरण शामिल हैं। बैंगलुरु भारत की इलेक्ट्रॉनिक्स राजधानी के रूप में उभरा है। इलेक्ट्रॉनिक सामान के अन्य महत्वपूर्ण केंद्र मुंबई, दिल्ली, हैदराबाद, पुणे, चेन्नई, कोलकाता, लखनऊ और कोयम्बटूर हैं। प्रमुख उद्योग केंद्र बैंगलुरु, नोएडा, मुंबई, चेन्नई, हैदराबाद और पुणे में हैं। (A) कौन सा शहर भारत की इलेक्ट्रॉनिक्स राजधानी बन चुका है? (B) दूरसंचार उद्योग के लिए आवश्यक किसी दो उपकरणों का उल्लेख कीजिए। (C) इस उद्योग के भारत में प्रमुख प्रभाव क्या हैं? <b>Read the passage and answer the following questions.</b> The electronics industry covers a wide range of products from transistor sets to television, telephones, cellular telecom, telephone exchange, radars, computers and many other equipment required by the Telecommunication industry. Bengaluru has emerged as the electronic capital of India. Other important centres for electronic goods are Mumbai, Delhi, Hyderabad, Pune, Chennai, Kolkata, Lucknow and Coimbatore. The major industry concentration is at Bengaluru, Noida, Mumbai, Chennai, Hyderabad and Pune. (A) Which city has emerged as the electronic capital of India? (B) Mention any two equipments required by the telecommunication industry. (C) What are major impacts of this industry in India?</p>	1+1+2
19	<p>भारत के उसी रेखांकित मानचित्र पर निम्नलिखित स्थानों को उचित प्रतीकों के साथ चिह्नित और लेबल कीजिए: I. (A) सलाल बांध अथवा (B) तुंगभद्रा बांध II. निम्नलिखित में से किसी दो का स्थान चिह्नित कीजिए: (i) ओडिशा का एक प्रमुख समुद्री बंदरगाह (ii) महाराष्ट्र का एक अंतरराष्ट्रीय हवाई अड्डा (iii) तेलंगाना में एक थर्मल पावर प्लांट <b>नोट:</b> निम्नलिखित प्रश्न केवल दृष्टिबाधित अभ्यर्थियों के लिए है (प्रश्न संख्या 19 के स्थान पर)। i. चंबल नदी पर बना एक बांध ii. आंध्र प्रदेश का एक प्रमुख समुद्री बंदरगाह iii. तेलंगाना में एक अंतरराष्ट्रीय हवाई अड्डा iv. महाराष्ट्र में एक न्यूक्लियर पावर प्लांट On the same outline map of India locate and label the following with suitable symbols: I. (A) Salal Dam OR (B) Tungabhadra Dam II. Locate any two of the following: (i) A major sea port in Odisha (ii) An International Airport in Maharashtra</p>	1+1+1

	<p>(iii) A thermal Power Plant in Telangana  <b>Note: The following question is for Visually Impaired Candidates only in lieu of Q. No. 19.</b>  i. A dam built on river Chambal  ii. A major sea port in Andhra Pradesh  iii. An international airport in Telangana  iv. A nuclear power plant in Maharashtra</p>	
<b>SECTION (C) POLITICAL SCIENCE (20 MARKS)</b>		
20	<p>निम्नलिखित कथनों में से कौन सही रूप से बहुसंख्यकवाद और सत्ता वितरण के बीच अंतर बताता है?</p> <p>(A) बहुसंख्यकवाद बहुसंख्यक समुदाय के प्रभुत्व पर जोर देता है, जबकि सत्ता वितरण विभिन्न समूहों के बीच सत्ता के साझा करने पर जोर देता है।  (B) बहुसंख्यकवाद सहमति बनाने की आवश्यकता पर जोर देता है, जबकि सत्ता वितरण अल्पसंख्यक समूहों को बाहर करने पर जोर देता है।  (C) बहुसंख्यकवाद अल्पसंख्यक हितों को समायोजित करने के महत्व पर जोर देता है, जबकि सत्ता वितरण बहुसंख्यक शासन की आवश्यकता पर जोर देता है।  (D) बहुसंख्यकवाद संघर्षों के शांतिपूर्ण समाधान की आवश्यकता पर जोर देता है, जबकि सत्ता वितरण बहुसंख्यक की इच्छाशक्ति लागू करने के लिए बल के उपयोग पर जोर देता है।</p> <p>Which of the following statements accurately distinguishes between Majoritarianism and Power sharing?</p> <p>(A) Majoritarianism emphasizes the dominance of the majority community, while Power sharing emphasizes the sharing of power among different groups.  (B) Majoritarianism emphasizes the need for consensus building, while Power sharing emphasizes the exclusion of minority groups.  (C) Majoritarianism emphasizes the importance of accommodating minority interests, while Power sharing emphasizes the need for majority rule.  (D) Majoritarianism emphasizes the need for peaceful resolution of conflicts, while Power sharing emphasizes the use of force to impose the majority's will.</p>	1
21	<p><i>Reigning the Reins</i></p>  <p>Source: Democratic Politics, NCERT 2025-26</p> <p>निम्नलिखित विकल्पों में से कौन इस कार्टून का सबसे उपयुक्त अर्थ दर्शाता है?</p> <p>(A) पुतिन और बुश अच्छे मित्र हैं  (B) लोकतंत्र एक घोड़े-गाड़ी की तरह है  (C) सत्ता का कुछ ही हाथों में केंद्रीकरण  (D) उपरोक्त में से कोई नहीं</p> <p><b>नोट: निम्नलिखित प्रश्न केवल दृष्टिबाधित अभ्यर्थियों के लिए है (प्रश्न संख्या 21 के स्थान पर)।</b>  बेल्जियम ने किन सिद्धांतों पर काम किया है?</p>	1

	<p>(A) बहुसंख्यकवाद (B) समायोजन (C) दोनों (A) और (B) (D) इनमें से कोई नहीं</p> <p>Which of the following options best signifies this cartoon? (A) Putin and Bush are good friends (B) Democracy is like a horse-cart (C) Concentration of power in few hands (D) None of the above</p> <p><b>Note: The following question is for Visually Impaired Candidates only in lieu of Q. No. 21</b></p> <p>Question: Belgium has worked on the principles of: (A) Majoritarianism (B) Accommodation (C) Both (a) and (b) (D)None of these</p>	
22	<p>निम्नलिखित प्रश्न में दो कथन दिए गए हैं – एक अभिकथन (Assertion – A) और दूसरा कारण (Reason – R)। कथनों को पढ़िए और सही विकल्प चुनिए।</p> <p><b>अभिकथन (A):</b> भारत जैसे विशाल देश को केवल दो स्तरों की सरकार से नहीं चलाया जा सकता, इसलिए तीसरे स्तर की आवश्यकता है।</p> <p><b>कारण (R):</b> भारत में राज्य बड़े हैं और आंतरिक रूप से जनसंख्या तथा संस्कृति में अत्यंत विविध हैं।</p> <p>विकल्प: (A) A और R दोनों सत्य हैं, और R, A की सही व्याख्या है। (B) A और R दोनों सत्य हैं, लेकिन R, A की सही व्याख्या नहीं है। (C) A सत्य है, लेकिन R असत्य है। (D) A असत्य है, लेकिन R सत्य है।</p> <p>In the question given below, there are two statements marked Assertion (A) and Reason (R). Read the statements and choose the correct option.</p> <p><b>Assertion (A):</b> A vast country like India cannot be run through two tiers of Government and need a third tier.</p> <p><b>Reason (R):</b> States in India are large and internally very diverse in population, as well as culture.</p> <p>(A) Both (A) and (R) are true, and (R) is the correct explanation of (A). (B) Both (A) and (R) are true, but (R) is not the correct explanation of (A). (C) (A) is true, but (R) is false (D) (A) is false, but (R) is true</p>	1
23	<p>निम्नलिखित कथनों में से कौन-से नारीवादी आंदोलनों के संदर्भ में सत्य हैं?</p> <p>(A) उग्र नारी आंदोलनों का उद्देश्य व्यक्तिगत और पारिवारिक जीवन में समानता लाना था। (B) आंदोलनों ने महिलाओं की राजनीतिक और कानूनी स्थिति को बढ़ाने और उनके शैक्षणिक व कैरियर अवसरों में सुधार की माँग की। (C) विभिन्न देशों में महिलाओं को मतदान का अधिकार देने के लिए आंदोलनों हुए। (D) उपरोक्त सभी</p> <p>Which of the following statements are true regarding feminist movements? (A) Radical women's movements aimed at equality in personal and family life. (B) Agitations demanded enhancing the political and legal status of women and improving their educational and career opportunities. (C) There were agitations in different countries for the extension of voting rights to women. (D) All of the above.</p>	1
24	<p>एक साथ आने वाले संघ और एक साथ रखने वाले संघ के बीच अंतर बताएं?</p> <p>Distinguish between coming together federation and holding together federation?</p>	2
25	<p>दो बिंदुओं का उपयोग करते हुए स्पष्ट करें कि महिलाओं को अपने कार्यस्थल पर किस प्रकार भेदभाव का सामना करना पड़ता है?</p> <p>Explain how women face discrimination at their work place using two points?</p>	2
26	<p>“एक लोकतांत्रिक सरकार एक वैध सरकार होती है।” इस कथन का तर्कों सहित समर्थन कीजिए।</p> <p>A democratic government is a legitimate government.’ Support the statement with arguments.</p>	3

27	<p>(A) “वंशानुगत उत्तराधिकार राजनीतिक पार्टियों के सामने सबसे गंभीर चुनौतियों में से एक है।” इस कथन का विश्लेषण कीजिए। अथवा (B) लोकतंत्र में राजनीतिक पार्टियां कौन-कौन से विभिन्न कार्य करती हैं, बताइए। (A) “Dynastic succession is one of the most serious challenges before the political parties.” Analyze the statement. OR (B) State the various functions political parties perform in a democracy.</p>	5
28	<p><b>नीचे दिए स्रोत को पढ़िए और इसके आधार पर प्रश्नों के उत्तर दीजिए:</b></p> <p>सत्ता वितरण की व्यवस्थाएँ इस तरह भी देखी जा सकती हैं कि राजनीतिक पार्टियाँ, दबाव समूह और आंदोलनों का सत्ता में बैठे लोगों पर नियंत्रण या प्रभाव कैसे पड़ता है। लोकतंत्र में नागरिकों को सत्ता के विभिन्न दावेदारों में से चुनने की स्वतंत्रता होनी चाहिए। समकालीन लोकतंत्रों में यह विभिन्न पार्टियों के बीच प्रतिस्पर्धा के रूप में होता है। ऐसी प्रतिस्पर्धा सुनिश्चित करती है कि सत्ता केवल एक हाथ में न रहे। लंबे समय में, सत्ता विभिन्न राजनीतिक पार्टियों के बीच साझा होती है, जो विभिन्न विचारधाराओं और सामाजिक समूहों का प्रतिनिधित्व करती हैं। कभी-कभी यह प्रकार का वितरण सीधे भी हो सकता है, जब दो या दो से अधिक पार्टियाँ चुनाव लड़ने के लिए गठबंधन बनाती हैं। यदि उनका गठबंधन चुना जाता है, तो वे एक गठबंधन सरकार बनाते हैं और इस प्रकार सत्ता साझा करते हैं। लोकतंत्र में, हित समूह भी पाए जाते हैं, जैसे व्यापारी, उद्योगपति, किसान और औद्योगिक मजदूर। वे भी सरकारी शक्ति में अपना हिस्सा रखते हैं, या तो सरकारी समितियों में भाग लेकर या निर्णय लेने की प्रक्रिया पर प्रभाव डालकर।</p> <p>(A) ‘सत्ता वितरण लोकतंत्र का एक आवश्यक घटक है।’ इस कथन को साबित करने के लिए एक उदाहरण दीजिए। (B) गठबंधन बनाना सत्ता वितरण का उदाहरण कैसे है? (C) राजनीतिक पार्टियाँ, दबाव समूह और आंदोलन सत्ता में बैठे लोगों को नियंत्रित या प्रभावित करने में कैसे मदद करते हैं?</p> <p><b>Read the source given below and answer the questions that follows:</b></p> <p>Power sharing arrangements can also be seen in the way political parties, pressure groups and movements control or influence those in power. In a democracy, the citizens must have freedom to choose among various contenders for power. In contemporary democracies, this takes the form of competition among different parties. Such competition ensures that power does not remain in one hand. In the long run, power is shared among different political parties that represent different ideologies and social groups. Sometimes this kind of sharing can be direct, when two or more parties form an alliance to contest elections. If their alliance is elected, they form a coalition government and thus share power. In a democracy, we find interest groups, such as those of traders, businessmen, industrialists, farmers and industrial workers. They also will have a share in governmental power, either through participation in governmental committees or bringing influence on the decision-making process.</p> <p>(A) ‘Power Sharing is an essential component of democracy’. Give one example to prove the statement. (B) How is alliance building an example of power sharing? (C) How do political parties, pressure groups and movements help in controlling or influencing those who are in power?</p>	1+1+2
<b>SECTION (D) ECONOMICS (20 Marks)</b>		<b>MARKS</b>

29	<p>निम्नलिखित प्रश्न में दो कथन दिए गए हैं – एक अभिकथन (Assertion – A) और दूसरा कारण (Reason – R)। कथनों को पढ़िए और उचित विकल्प चुनिए।</p> <p><b>अभिकथन (A):</b> अलग-अलग लोगों के अलग-अलग विकास लक्ष्य होते हैं।</p> <p><b>कारण (R):</b> लोग स्वतंत्रता, समानता, सुरक्षा और सम्मान चाहते हैं।</p> <p>विकल्प:</p> <p>(A) A और R दोनों सत्य हैं, और R, A की सही व्याख्या है।</p> <p>(B) A और R दोनों सत्य हैं, लेकिन R, A की सही व्याख्या नहीं है।</p> <p>(C) A सत्य है लेकिन R असत्य है।</p> <p>(D) A असत्य है लेकिन R सत्य है।</p> <p>Two statements are given in the question below as Assertion (A) and Reasoning (R). Read the statements and choose the appropriate option</p> <p><b>Assertion (A):</b> Different people have different development goals.</p> <p><b>Reason (R):</b> People want freedom, equality, security, and respect.</p> <p>Options:</p> <p>(A) Both A and R are true, and R is the correct explanation of A.</p> <p>(B) Both A and R are true, but R is not the correct explanation of A.</p> <p>(C) A is true but R is false.</p> <p>(D) A is false but R is true</p>	1
30	<p>_____ उन गतिविधियों को शामिल करता है जिनमें प्राकृतिक उत्पादों को अन्य रूपों में बदला जाता है, उन उत्पादन प्रक्रियाओं के माध्यम से जिन्हें हम औद्योगिक गतिविधि से जोड़ते हैं।</p> <p>(A) द्वितीयक क्षेत्र (B) तृतीयक क्षेत्र (C) प्राथमिक क्षेत्र (D) उपरोक्त में से कोई नहीं</p> <p>The _____ covers activities in which natural products are changed into other forms through ways of manufacturing that we associate with industrial activity.</p> <p>(A) secondary sector (B) tertiary sector (C) primary sector (D) none of the above</p>	1
31	<p>रवि एक स्वस्थ युवा व्यक्ति है। वह एक ऐसे गाँव में रहता है जहाँ उसे कोई काम नहीं मिल रहा है। किस योजना के तहत वह एक वर्ष में कम से कम 100 दिन का काम पा सकता है?</p> <p>(A) आत्मनिर्भर भारत योजना</p> <p>(B) प्रधानमंत्री गरीब कल्याण योजना</p> <p>(C) महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम (MGNREGA)</p> <p>(D) ग्रामीण रोजगार सृजन कार्यक्रम</p> <p>Ravi is an able-bodied young man. He lives in a village where he cannot find any work. Under which scheme he can find at least 100 days of work in a year.</p> <p>(A) Aatmanirbhar Bharat Yojana</p> <p>(B) Pradhan Mantri Garib Kalyan Yojana</p> <p>(C) Mahatma Gandhi National Rural Employment Guarantee Act</p> <p>(D) Rural Employment Generation Programme.</p>	1
32	<p>निम्नलिखित में से कौन सा विकल्प ऋणाधार को वर्णित करता है?</p> <p>(A) ऋण के लिए संपत्ति को गारंटी के रूप में रखना</p> <p>(B) इच्छाओं का दोहरी संगति</p> <p>(C) अदला-बदली के लिए कुछ निश्चित उत्पाद</p> <p>(D) अदला-बदली में व्यापार</p> <p>Which one of the following option describes “Collateral”</p> <p>(A) Asset as guarantee for loan (B) Double coincidence of wants</p> <p>(C) Certain products for barter (D) Trade in Barter</p>	1
33	<p>भारतीय रिज़र्व बैंक (RBI) के बारे में दिए गए कथनों को पढ़िए और सही विकल्प चुनिए।</p> <p>i) RBI ऋण के औपचारिक स्रोतों के कार्यकलापों की निगरानी करता है।</p> <p>ii) RBI यह सुनिश्चित करता है कि बैंक अपने नकद भंडार को बनाए रखें।</p> <p>iii) RBI अपने पैसे वापस पाने के लिए अनुचित उपायों का प्रयोग करता है।</p> <p>iv) RBI केंद्रीय सरकार की ओर से मुद्रा नोट जारी करता है।</p>	1

	<p>विकल्प:  (A) केवल (iv) सही है (B) (i) और (ii) सही हैं  (C) (i), (ii) और (iii) सही हैं (D) (i), (ii) और (iv) सही हैं</p> <p>Read the given statements about the Reserve Bank of India and choose the correct option.</p> <p>i) The RBI supervises the functioning of formal sources of loans.  ii) The RBI monitors the banks in actually maintaining cash balance.  iii) The RBI uses unfair means to get their money back.  iv) The RBI issues currency notes on behalf of the central government.</p> <p>Options:  (A) Only (iv) is correct (B) (i) and (ii) are correct  (C) (i), (ii) and (iii) are correct (D) (i), (ii) and (iv) are correct</p>	
34	<p>सरकार द्वारा लगाए गए बाधाओं या प्रतिबंधों को हटाना _____ कहलाता है।  (A) वैश्वीकरण (B) विनिवेश (C) निजीकरण (D) उदारीकरण</p> <p>Removing barriers or restrictions set by the government is known as ____  (A) Globalization (B) Disinvestment (C) Privatization (D) Liberalization</p>	1
35	<p>एक स्कूल प्रोजेक्ट में, सिद्धि को असंगठित क्षेत्र में काम करने वाले लोगों के सामाजिक समुदायों के बारे में शोध करने के लिए कहा गया है। कोई तीन संकेत देकर उसकी मदद करें।  In a school project, Siddhi has been asked to research about the social communities of people working in the unorganized sector. Help her by giving any three clues.</p>	3
36	<p>बैंकों और सहकारी समितियों के लिए ग्रामीण क्षेत्रों में अपनी ऋण सुविधाएँ बढ़ाना क्यों आवश्यक है? कोई तीन प्रासंगिक बिंदु बताइए।  Why is it necessary for the banks and cooperative societies to increase their lending facilities in rural areas? Give any three relevant points.</p>	3
37	<p>“वैश्वीकरण और उत्पादकों के बीच प्रतिस्पर्धा उपभोक्ताओं के लिए लाभकारी रही है।” इस कथन का समर्थन करने वाले तर्क दीजिए।  “Globalization and competition among producers has been of advantage to the consumers.” Give arguments in supports of this statement.</p>	3
38	<p>(A) रोशन एक बैंक में क्लर्क के रूप में काम करता है जबकि उसका भाई समीर निर्माण स्थल पर मजदूर के रूप में काम करता है। उनके कार्य की परिस्थितियों में अंतर और संबंधित क्षेत्रों में काम करने के लाभ और हानियों का वर्णन कीजिए।  अथवा  (B) “एक छोटी किसान, लक्ष्मी, अपने परिवार के चार अन्य सदस्यों के साथ, लगभग दो हेक्टेयर बिना सिंचाई वाली भूमि की मालिक है, जो केवल वर्षा पर निर्भर है।” उसके परिवार की आय बढ़ाने के लिए कोई पाँच उपाय सुझाइए।  (A) Roshan works in a bank as a clerk while his brother Sameer works on a construction site as a labourer. Describe the differences in their conditions of work and the benefits and drawbacks of working in the respective sectors.  OR  (B) “A small farmer, Laxmi along with four other members in her family, owning about two hectares of un-irrigated land dependent only on rain for growing crops.” Suggest any five ways to increase her family income.</p>	5



KENDRIYA VIDYALAYA SANGTHAN, RAIPUR REGION  
FIRST PRE-BOARD EXAM (2025-26)  
SUBJECT: ARTIFICIAL INTELLIGENCE (417)  
CLASS: X

Maximum Marks: 50

Time Allowed: 2 hours

**General Instructions:**

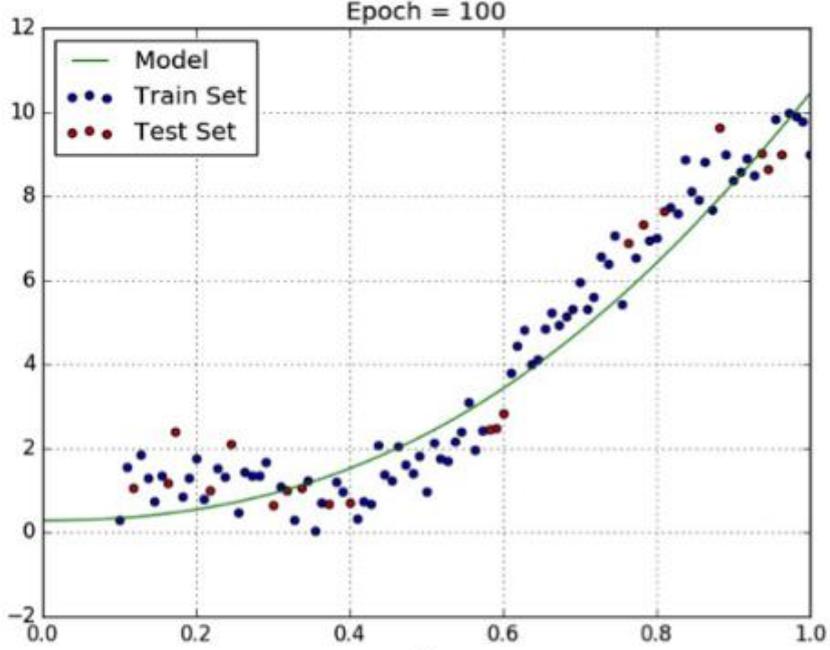
- I. Please read the instructions carefully.
- II. This question paper consists of 21 questions in two Sections: **Section A** and **Section B**.
- III. **Section A** has Objective Type Questions, whereas Section B contains Subjective Type Questions.
- IV. Out of the given  $(5 + 16) = 21$  questions, a candidate has to answer  $(5 + 10) = 15$  questions in the allotted (maximum) time of 2 hours.
- V. All questions of a particular section must be attempted in the correct order.
- VI. **Section A: Objective Type Questions (24 marks) :**
  - a) This section has 5 questions.
  - b) There is no negative marking.
  - c) Do as per the instructions given.

Marks allotted are mentioned against each question/part.
- VII. **Section B: Subjective Type Questions (26 marks) :** This section has 16 questions.
  - a) A candidate has to do 10 questions.
  - b) Do as per the instructions given.
  - c) Marks allotted are mentioned against each question/part.

**Section A**

**OBJECTIVE TYPE QUESTIONS (24 Marks)**

Q. 1	Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)	
i.	Which of these is NOT a common communication barrier? (a) Linguistic barrier (b) Interpersonal barrier (c) Financial barrier (d) Organisational barrier	1
ii.	Goal setting is a very essential factor in your personal life, We can use SMART method to set goals. what does 'M' stand for	1
iii.	We can check secure websites using _____. (a) http:// (b) https:// (c) Wwww (d) None of the above	1
iv	Arjun started selling handmade crafts online. He takes risks and manages his business himself. Which quality does he represent? (a) Leadership (b) Entrepreneurship (c) Self-confidence (d) Marketing skill	1
v.	Priya always carries a cloth bag for shopping instead of using plastic. This shows: (a) E-waste management (b) Waste burning (c) Digital literacy (d) Sustainable practice	1
vi.	<b>Assertion (A):</b> Self-awareness helps an individual understand their strengths and weaknesses. <b>Reason (R):</b> Knowing one's strengths and weaknesses allows a person to improve decision-making and personal growth. (a) Both A and R are true and R is the correct explanation for A (b) Both A and R are true and R is not the correct explanation for A (c) A is True but R is False (d) A is false but R is True	1

Q. 2	Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)	
i.	A company is designing a chatbot for customer queries. Before using customer data, they ensure user privacy. This step follows: (a) Model Evaluation (b) Data Pre-processing (c) Ethical AI principles (d) Deployment	1
ii.	Rohan is planning an AI project on detecting fake news. The first step he should take is: (a) Data collection (b) Problem scoping (c) Model training (d) Evaluation	1
iii.	The following picture depicts which type of the model.  (a) Classification (b) Clustering (c) Regression (d) All the Above	1
iv	The measure of balance between precision and recall is (a) Accuracy (b) F1 Score (c) Precision (d) None of these	1
v.	A self-driving car stops automatically when it detects a red traffic light. This is an application of: (a) NLP (b) Computer Vision (c) Deep Learning (d) Data Mining	1
vi.	What is the first stage of Natural Language Processing (NLP)? (a) Semantic Analysis (b) Pragmatic Analysis (c) Lexical Analysis (d) Syntactic Analysis	1

<b>Q. 3 Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>		
i.	In an AI project on predicting exam results, the team splits data into training set and testing set. This belongs to which stage? (a) Data Acquisition (b) Modelling (c) Deployment (d) Problem Scoping	1
ii.	Words that we want to filter out before doing any analysis of the text are called _____. (a) Rare words (b) Stop words (c) Frequent words (d) Filter words	1
iii.	Which of the following statements is NOT true about supervised learning? a) Requires labelled data for training. b) Used for classification and regression tasks. c) Can be less efficient for large datasets. d) Often used in image recognition applications.	1
iv	<b>Which of the following parameters will be considered by recall, while evaluating a model's performance?</b> i. False negative                      ii. True negative                      iii. False positive                      iv. True positive a. only (i) b. (ii) and (iii) c. (iii) and (iv) d. (i) and (iv)	1
v.	Seema is learning the conditions that make up the confusion matrix. She came across a scenario in which the machine that was supposed to predict a bird was always predicting a bird. What is this condition called? a. True Positive b. False Positive c. False Negative d. True Negative	1
vi.	<b>Assertion(A):</b> Unsupervised Learning is a type of learning without any guidance. <b>Reasoning(R):</b> Unsupervised learning models work on unlabeled datasets, where the data fed into the machine is random and the person training the model may not have any prior information about it. (a) Both A and R are true and R is the correct explanation for A (b) Both A and R are true and R is not the correct explanation for A (c) A is True but R is False (d) A is false but R is True	1

<b>Q. 4 Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>		
i.	What is the central focus of virtue-based value-based frameworks? (a) Maximizing utility (b) Protecting human rights (c) Aligning actions with ethical principles and beliefs (d) Ensuring compliance with legal regulations	1
ii.	Clustering algorithms are commonly used in unsupervised learning for: (a) Spam filtering (b) Image classification (c) Stock price prediction (d) Grouping similar data points	1
iii.	An app predicts whether a student will score “above 60%” or “below 60%” in exams. This	1

	is an example of: (a) Regression (b) Clustering (c) Classification (d) NLP	
iv	Evaluating Models How is the relationship between model performance and accuracy described? A) Inversely proportional B) Not related C) Directly proportional D) Randomly fluctuating	1
v.	How is resolution typically expressed? (a) By the number of pixels along the width and height, such as 1280x1024 (b) By the brightness level of each pixel, ranging from 0 to 255 (c) By the total number of pixels, such as 5 megapixels (d) By the arrangement of pixels in a 2-dimensional grid	1
vi.	Lemma of “caring” is _____. (a) Care (b) Cared (c) Cares (d) Car	1

<b>Q. 5</b>	<b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>	
i.	Which of the following is used for finding frequency of words in a text sample? (a) Stemming (b) Lemmatisation (c) Bag of words (d) None of the above	1
ii.	A neural network with multiple layers of interconnected neurons is called a: (a) Single-layer network (b) Deep Neural Network (c) Linear network (d) Perceptron	1
iii.	The percentage of correct predictions out of all observations is a. Prediction b. Accuracy c. F1 Score d. None of these	1
iv	Which range represents grayscale image pixel values? (a) 1 to 128                      (b) 0 to 255                      (c) 0 to 1000                      (d) 1 to 256	1
v.	Which of the following is NOT a step in Text Normalisation? (a) Tokenization (b) Lemmatization (c) Punctuation removal (d) Document summarization	1
vi.	<b>Assertion:</b> Value-based frameworks in ethics provide guidance by focusing on fundamental ethical principles and values. <b>Reasoning:</b> These frameworks reflect different moral philosophies guiding ethical reasoning and are concerned with assessing the moral worth of actions. (a) Both A and R are true and R is the correct explanation for A (b) Both A and R are true and R is not the correct explanation for A (c) A is True but R is False (d) A is false but R is True	1

**SECTION B**  
**SUBJECTIVE TYPE QUESTIONS (26 marks)**

**Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks)**

**Answer each question in 20 – 30 words.**

Q. 6	Draw any four common signs used for Visual Communication. Explain what each conveys and where did you see it?	2
Q. 7	Ravi is preparing for his board exams but gets distracted by mobile games and social media. As a result, he is unable to complete his daily study schedule. Suggest two self-management strategies Ravi can use to stay focused.	2
Q. 8	A user installs a game from the internet, but it quietly steals personal data in the background. What do we call this harmful program in computer terminology?	2
Q. 9	List any two qualities of the entrepreneur?	2
Q. 10	'Reduced Inequalities' is one of the Sustainable development goals set by the UN. Give any two ways to reduce inequalities.	2

**Answer any 4 out of the given 6 questions in 20 – 30 words each (2 x 4 = 8 marks)**

Q. 11	A school is planning to build an AI project to predict students' exam results. Explain the two most important steps they should do before model training?	2
Q. 12	While developing an AI model for hiring employees, the team realizes the dataset is biased towards one gender. Why is it important to remove this bias?	2
Q. 13	Identify the type of model (classification, regression, clustering, association model) are the following case studies most likely based on?  a) A bank wants to predict whether a loan applicant will "default" or "non-default" on their loan payments. They have a dataset containing information such as income, credit score, loan amount, and employment status.  b) A real estate agency wants to predict the selling price of houses based on various features such as size, location, number of bedrooms, and bathrooms. They have a dataset containing historical sales data.  c) A marketing company wants to segment its customer base into distinct groups based on purchasing behaviour for targeted marketing campaigns. They have a dataset containing information such as purchase history, frequency of purchases, and amount spent.  d) A grocery store wants to identify associations between different products purchased by customers to understand which products are commonly bought together. They have a transaction dataset containing records of items purchased together during each transaction.	2
Q. 14	Draw confuse matrix for the following case: In a medical test for a rare disease, out of 1000 people tested, 50 actually have the disease while 950 do not. The test correctly identifies 40 out of the 50 people with the disease as positive, but it also wrongly identifies 30 of the healthy individuals as positive	2
Q. 15	Define Computer Vision and provide one real-life application.	2
Q. 16	Differentiate Script Bot and Smart Bot	2

**Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)**

Q. 17	What do you mean by Bioethics? Mention the four principles of it.	4
Q. 18	Identify the type of learning (supervised, unsupervised, reinforcement learning) and justify (reason for) your answer are the following case studies most likely based on? I. A bank wants to detect fraudulent transactions. They have past transaction data with labels indicating "fraudulent" or "legitimate."	4

	<p>II. A movie streaming platform wants to cluster users into groups based on their viewing history to recommend similar movies. There are no predefined labels.</p> <p>III. A robot is trained to play football by receiving rewards for scoring goals and penalties for missing or fouling.</p> <p>IV. An e-commerce company wants to categorize products into different groups automatically based on descriptions and reviews, but the categories are not given in advance.</p>														
Q. 19	Explain neural networks. Describe the three layers of neural networks.	4													
Q. 20	What is Text Normalization and write the steps of it?	4													
Q. 21	<p>A fraud detection system is used to identify fraudulent transactions (1) from legitimate ones (0). Out of 1000 transactions:</p> <table border="1" data-bbox="296 501 1002 784"> <thead> <tr> <th colspan="2" rowspan="2">Confuse Matrix</th> <th colspan="2">Reality</th> </tr> <tr> <th>True</th> <th>False</th> </tr> </thead> <tbody> <tr> <th rowspan="2">Predicted</th> <th>True</th> <td>TP=80</td> <td>FP=30</td> </tr> <tr> <th>False</th> <td>40</td> <td>850</td> </tr> </tbody> </table> <p>Calculate accuracy, precision, recall, and F1-score.</p>	Confuse Matrix		Reality		True	False	Predicted	True	TP=80	FP=30	False	40	850	4
Confuse Matrix				Reality											
		True	False												
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