

केन्द्रीय विद्यालयसंगठन, भुवनेश्वर संभाग

प्राकृ परिषदीय परीक्षा 2025-26

कक्षा : 10वीं,

हिन्दी (पाठ्यक्रम-'आ' : 002)

अधिकतम अंक : 80

निर्धारित समय : 3घंटे

सामान्य निर्देश : दिए गए निम्नलिखित निर्देशों को ध्यानपूर्वक पढ़िए और उनका अनुपालन कीजिए -

- इस प्रश्न-पत्र में कुल 4 खंड हैं - क, ख, ग, और घ
- प्रश्नों का उत्तर दिए गए निर्देशों का पालन करते हुए क्रम से दीजिए ।
- प्रश्न संख्या व उपप्रश्न की संख्या अवश्य लिखें ।

प्रश्न संख्या	उप प्रश्न	विषयवस्तु	उप अंक	कुल अंक
		खंड -'क'		

1. नीचे दिए गए गद्यांश को ध्यानपूर्वक पढ़कर उससे संबंधित प्रश्नों का उत्तर निर्देशानुसार दीजिए- $1+1+1+2+2=7$ अंक

भारत में हरित क्रांति का मुख्य उद्देश्य देश को खाद्यान्न मामले में आत्मनिर्भर बनाना था, लेकिन इस बात की आशंका किसी को नहीं थी कि रासायनिक उर्वरकों और कीटनाशकों का अंधाधुंध इस्तेमाल न सिर्फ खेतों में, बल्कि खेतों से बाहर मंडियों तक में होने लगेगा। विशेषज्ञों के मुताबिक रासायनिक उर्वरकों और कीटनाशकों का प्रयोग खाद्यान्न की गुणवत्ता के लिए सही नहीं है, लेकिन जिस रफ्तार से देश की आबादी बढ़ रही है, उसके मद्देनजर फ़सलों की अधिक पैदावार ज़रूरी थी। समस्या सिर्फ रासायनिक खादों के प्रयोग की ही नहीं है। देश के ज़्यादातर किसान परंपरागत कृषि से दूर होते जा रहे हैं।

दो दशक पहले तक हर किसान के यहाँ गाय, बैल और भैंस खूटों से बँधे मिलते थे। अब इन मवेशियों की जगह ट्रैक्टर-ट्राली ने ले ली है। परिणामस्वरूप गोबर और घोरे की राख से बनी कंपोस्ट खाद खेतों में गिरनी बंद हो गई। पहले चैत-बैसाख में गेहूँ की फ़सल कटने के बाद किसान अपने खेतों में गोबर, राख और पत्तों से बनी जैविक खाद डालते थे। इससे न सिर्फ खेतों की उर्वरा-शक्ति बरकरार रहती थी, बल्कि इससे किसानों को आर्थिक लाभ के अलावा बेहतर गुणवत्ता वाली फ़सल मिलती थी।

14 अंक

I. हरित क्रांति की सफलता का कौन-सा अनपेक्षित दुष्परिणाम गद्यांश में प्रमुख रूप से उल्लिखित है?

- क. किसानों की आर्थिक समृद्धि में कमी
- ख. भूमि का अभाव
- ग. खाद्यान्न की गुणवत्ता में गिरावट
- घ. ग्रामीण पलायन

II. परंपरागत कृषि से दूरी बनाने का सबसे बड़ा पर्यावरणीय परिणाम क्या हुआ?

- क. जल स्रोतों की बढ़ोतरी
- ख. मिट्टी की उर्वरा शक्ति में कमी

	<p>ग. फसल की मात्रा में गिरावट घ. तापमान में वृद्धि</p>
III.	<p>कथन और कारण के आधार पर सही विकल्प चुनिए- कथन (A): रासायनिक उर्वरकों और कीटनाशकों का अत्यधिक प्रयोग दीर्घकाल में हानिकारक सिद्ध हुआ। कारण (R): इनसे मिट्टी के प्राकृतिक तत्व और सूक्ष्मजीव नष्ट हो जाते हैं। क. A और R दोनों सही हैं तथा R, A की सही व्याख्या है ख. A और R दोनों सही हैं, परंतु R, A की सही व्याख्या नहीं है ग. A सही है, R गलत है घ. A गलत है, R सही है</p>
नीचे दिए गए प्रश्नों का उत्तर 25 से 30 शब्दों में दीजिए-	
IV.	जैविक खाद के प्रयोग से किसानों को दोहरे लाभ कैसे मिलते थे?
V.	रासायनिक खादों और कीटनाशकों के प्रयोग से खाद्यान्न की गुणवत्ता पर क्या प्रभाव पड़ा?
2.	<p>नीचे दिए गए पद्यांश को ध्यानपूर्वक पढ़कर उस से संबंधित प्रश्नों का उत्तर निर्देशानुसार दीजिए - $1+1+1+2+2=7$ अंक</p> <p>पूर्व चलने के बटोही, बाट की पहचान कर ले! पुस्तकों में हैं नहीं, छापी गई इसकी कहानी, हाल इसका जात होता है न औरों की जुबानी, अनगिनत राही गए इस राह से, उनका पता क्या, पर गए कुछ लोग इस पर, छोड़ पैरों की निशानी, यह निशानी मूक होकर भी बहुत कुछ बोलती है, खोल इसका अर्थ, पंथी, पंथ का अनुमान कर ले! पूर्व चलने के बटोही, बाट की पहचान कर ले! है अनिश्चित किस जगह पर, सरित-गिरि-गहवर मिलेंगे, है अनिश्चित किस जगह पर, बाग-बन सुंदर मिलेंगे, किस जगह यात्रा खत्म हो जाएगी, यह भी अनिश्चित, है अनिश्चित, कब सुमन, कब कंटकों के सर मिलेंगे, कौन सहसा छूट जाएँगे, मिलेंगे कौन सहसा, आ पड़े कुछ भी, रुकेगा तू न, ऐसी आन कर ले! पूर्व चलने के बटोही, बाट की पहचान कर ले!</p>
I	<p>कथन और कारण के आधार पर सही विकल्प चुनिए- कथन (A): कवि जीवन में आगे बढ़ने के लिए दृढ़ निश्चय का संदेश देता है। कारण (R): क्योंकि मार्ग में आने वाले संकटों से व्यक्ति को रुक जाना चाहिए। क. A सही है, R गलत है ख. A और R दोनों सही हैं ग. A और R दोनों गलत हैं घ. A गलत है, R सही है</p>

II	<p>“आ पड़े कुछ भी, रुकेगा तू न” – इस पंक्ति से कवि का कौन-सा भाव प्रकट होता है?</p> <p>क. भय और असमंजस ख. निराशा और असफलता ग. निष्ठा और साहस घ. विनम्रता और संयम</p>	
III	<p>कवि ने ‘पथ’ या ‘बाट’ को किसका प्रतीक माना है?</p> <p>क. अंधकार का ख. ज्ञान की पुस्तक का ग. विश्राम का स्थान घ. संघर्ष और जीवनयात्रा का</p>	
नीचे दिए गए प्रश्नों का उत्तर 25 से 30 शब्दों में दीजिए-		
IV	कवि ने “पूर्व चलने के बटोही” कहकर किसे संबोधित किया है और क्यों ?	
V	‘निशानी मूक होकर भी बहुत कुछ बोलती है’ – यह पंक्ति जीवन के किस सत्य की ओर संकेत करती है?	

खंड - ‘ख’

(व्यावहारिक व्याकरण)

3. निर्देशानुसार ‘रचना के आधार पर’ आधारित पाँच प्रश्नों में से किन्हीं चार के उत्तर लिखिए।	
<p>क. उन्होंने जेब से पर्स निकाला और सब्जी वाले को पैसे दिए। (सरल वाक्य में बदलिए)</p> <p>ख. तीन साल पहले बने विद्यालय में अब भी शिक्षकों की कमी है। (संयुक्त वाक्य में बदलिए)</p> <p>ग. कभी -कभी लगता है कि वे विचित्र व्यक्ति थे। ((आश्रितउपवाक्य का प्रकार लिखिए)</p> <p>घ. सभागार में दिया गया मेरा उद्बोधन पत्रिका में छपा है। (मिश्र वाक्य में बदलिए)</p> <p>ड. जब मैं कश्मीर गया था तब वहाँ का मौसम ठंडा था। (आश्रितउपवाक्य का प्रकार लिखिए)</p>	<p>1×4 =4 अंक</p> <p>16 अंक</p>
4. निर्देशानुसार ‘वाच्य’ पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों का उत्तर लिखिए।	
<p>क. सभी श्रोताओं द्वारा कहानी सुनी गई। वाक्य में कौन-सा वाच्य है?</p> <p>ख. आओ नहर में तैरा जाए। वाक्य में कौन सा वाच्य होगा -</p> <p>ग. “सभी बच्चों ने खेल खेला।” वाक्य को कर्मवाच्य में बदलने पर होगा-</p> <p>घ. रोगी को दवा दी गई। वाक्य में निहित वाच्य होगा -</p> <p>ड. उस्ताद बिस्मिल्ला खाँ द्वारा शहनाई की दुनिया में अलग पहचान बनाई गई है। कर्तृवाच्य में बदलें।</p>	<p>1×4 =4 अंक</p>
5. निर्देशानुसार ‘पद परिचय’ पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों का उत्तर लिखिए।	
<p>क. नेहा यहाँ <u>इसी</u> मकान में रहती है। रेखांकित पद का परिचय लिखिए।</p> <p>ख. उसने <u>मेहनत</u> से सबकुछ हासिल किया। रेखांकित पद का परिचय लिखिए।</p> <p>ग. हमें राष्ट्रभक्तों का <u>सम्मान</u> करना चाहिए। रेखांकित पद का परिचय लिखिए।</p>	<p>1×4 =4 अंक</p>

	<p>घ. <u>गरीब</u> मज़दूर बहुत परिश्रम कर रहा है।- रेखांकित पद का परिचय लिखिए ।</p> <p>ड. 'लाल गुलाब देखकर मन खुश हो गया।'-रेखांकित पद का परिचय लिखिए ।</p>	
6.	<p>निर्देशानुसार 'अलंकार' पर आधारित पाँच प्रश्नों में से किन्हीं चार प्रश्नों का उत्तर लिखिए ।</p> <p>क. 'क्रोध में सागर उफनता, पवन गा रहा है मधुर गीता।' – पंक्ति में कौन-सा अलंकार है?</p> <p>ख. राणा ने सोचा इस पार, तब तक चेतक था उस पार। पंक्ति में निहित अलंकार बताइए ।</p> <p>ग. 'शशि-मुख पर धूँधट डाले अंचल में दीप छिपाये।' – पंक्ति में कौन-सा अलंकार है?</p> <p>घ. 'नील गगन-सा शांत हृदय था सो रहा।' पंक्ति में कौन-सा अलंकार है?</p> <p>ड. 'अम्बर में तारे मानो मोती अनगन हैं।' पंक्ति में निहित अलंकार बताइए ।</p>	<p>1×4 =4 अंक</p>

खंड - 'ग'

(पाठ्य पुस्तक एवं पूरक पाठ्य पुस्तक से)

7.	<p>नीचे दिए गए पठित गद्यांश पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प को चुनकर लिखिए :</p> <p>काशी में संगीत - आयोजन की एक प्राचीन एवं अद्भुत परंपरा है। यह आयोजन पिछले कई बरसों से संकटमोचन मंदिर में होता आया है। यह मंदिर शहर के दक्षिण में लंका पर स्थित है व हनुमान जयंती के अवसर पर यहाँ पाँच दिनों तक शास्त्रीय उपशास्त्रीय गायन-वादन की उत्कृष्ट सभा होती है। इसमें बिस्मिल्ला खाँ अवश्य रहते हैं। अपने मज़हब के प्रति अत्यधिक समर्पित उस्ताद बिस्मिल्ला खाँ की श्रद्धा काशी विश्वनाथ जी के प्रति भी अपार है। वे जब भी काशी से बाहर रहते हैं तब विश्वनाथ व बालाजी मंदिर की दिशा की ओर मुँह करके बैठते हैं, थोड़ी देर ही सही, मगर उसी ओर शहनाई का प्याला घुमा दिया जाता है।</p> <p>काशी आज भी संगीत के स्वर पर जगती और उसी की थापों पर सोती है। काशी में मरण भी मंगल माना गया है। काशी आनंद- कानन है। सबसे बड़ी बात है कि काशी के पास उस्ताद बिस्मिल्ला खाँ जैसा लय और सुर की तमीज़ सिखाने वाला नायाब हीरा रहा है जो हमेशा से दो क्रौमों को एक होने व आपस में भाईचारे के साथ रहने की प्रेरणा देता रहा ।</p>	
I	<p>बिस्मिल्ला खाँ का समाज में योगदान क्या था?</p> <p>क) केवल अपने परिवार को संगीत सिखाना</p> <p>ख) मंदिरों में पूजा करना</p> <p>ग) दो क्रौमों को एकता और भाईचारे की प्रेरणा देना</p> <p>घ) संगीत प्रतियोगिताएँ आयोजित करना</p>	
II	<p>संकटमोचन मंदिर में संगीत आयोजन कब होता है?</p> <p>क) दिवाली के अवसर पर</p> <p>ख) होली के अवसर पर</p> <p>ग) हनुमान जयंती के अवसर पर</p> <p>घ) महाशिवरात्रि के अवसर पर</p>	<p>1× 5 =5 अंक</p>
III	<p>काशी को गद्यांश में किस रूप में वर्णित किया गया है?</p> <p>क) आनंद- कानन</p> <p>ख) दुःख-स्थली</p>	

	<p>ग) वीरता-भूमि घ) शिक्षण-स्थली</p>	
IV	<p>कथन-कारण आधारित सही विकल्प चुनिए -</p> <p>कथन: बिस्मिल्ला खाँ काशी से बाहर रहते समय भी शहनाई उसी दिशा में बजाते थे।</p> <p>कारण: उनका काशी विश्वनाथ और बालाजी के प्रति अपार श्रद्धा थी।</p> <p>क) कथन और कारण दोनों सही हैं, और कारण कथन का सही व्याख्याकारक है।</p> <p>ख) कथन सही है, कारण गलत है।</p> <p>ग) कथन और कारण दोनों सही हैं, और कारण कथन का सही व्याख्याकारक नहीं है।</p> <p>घ) कथन और कारण दोनों गलत हैं।</p>	
V	<p>कथन-कारण आधारित सही विकल्प चुनिए -</p> <p>कथन: बिस्मिल्ला खाँ काशी के संगीत आयोजनों में हमेशा उपस्थित रहते थे।</p> <p>कारण: उन्हें केवल अपने मज़हब का संगीत ही सीखना पसंद था।</p> <p>क) कथन और कारण दोनों सही हैं, और कारण कथन का सही व्याख्याकारक है।</p> <p>ख) कथन सही है, कारण गलत है।</p> <p>ग) कथन गलत है, कारण सही है।</p> <p>घ) कथन और कारण दोनों गलत हैं।</p> <p>उत्तर: ख) कथन और कारण दोनों सही हैं, और कारण कथन का सही व्याख्याकारक नहीं है।</p>	30 अंक
8.	<p>क्षितिज-2 के निर्धारित गद्य पाठों के आधार पर निम्नलिखित चार प्रश्नों में से किन्हें तीन प्रश्नों के उत्तर 25 से 30 शब्दों में लिखिए :</p> <p>क बालगोबिन भगत ने अपने इकलौते बेटे की मृत्यु होने पर भी गीत-भजन गाकर संगीत-साधना क्यों जारी रखी? बालगोबिन भगत पाठ के आधार पर लिखिए।</p> <p>ख कैप्टन की मृत्यु के बाद जब लेखक कस्बे में पहुँचे तो उन्होंने रुकने से इंकार कर दिया। लेखक का मूर्ति को देखकर रुकने से इंकार करना उनके किस व्यक्तित्व और भावनाओं को दर्शाता है?</p> <p>ग उस्ताद बिस्मिल्ला खाँ की काशी और उसके मंदिरों के प्रति श्रद्धा किस प्रकार प्रकट होती है? नौबतखाने में इबादत पाठ के आधार पर लिखिए।</p> <p>घ आग के आविष्कार में कदाचित् पेट की ज्वाला की प्रेरणा एक कारण रही। संस्कृति पाठ के इस वाक्य के आधार पर स्पष्ट कीजिए कि आवश्यकता ही आविष्कार की जननी है।</p>	2× 3 =6 अंक
9.	<p>नीचे दिए गए क्षितिज-2 के काव्यखंड पर आधारित बहुविकल्पीय प्रश्नों के सर्वाधिक उपयुक्त उत्तर वाले विकल्प को चुनकर लिखिए : "लखन कहा हँसि हमरे जाना। सुनहु देव सब धनुष समाना॥।</p> <p>का छति लाभु जून धनु तोरें। देखा राम नयन के भोरें॥।</p> <p>छुअत टूट रघुपतिहु न दोसू। मुनि बिनु काज करिअ कत रोसू॥।</p> <p>बोले चितइ परसु की ओरा। रे सठ सुनेहि सुभाउ न मोरा॥।</p> <p>बालकु बोलि बधउँ नहिं तोही। केवल मुनि जड़ जानहि मोह॥।</p>	

	<p>बाल ब्रह्मचारी अति कोही। बिस्व बिदित छत्रियकुल द्रोही॥ भुजबल भूमि भूप बिनु कीन्ही। बिपुल बार महिदेवन्ह दीन्ही॥ सहसबाहु भुज छेदनिहारा। परसु बिलोकु महीपकुमारा॥ मातु पितहि जनि सोचबस करसि महीसकिसोर। गर्भन्ह के अर्भक दलन परसु मोर अति घोर॥"</p>	
I.	<p>“लखन कहा हँसि हमरें जाना” में लक्ष्मण किस भाव से बोल रहे हैं?</p> <p>क. क्रोध भाव से ख. विनम्रता से ग. व्यंग्य और हास्य से घ. भय के कारण</p>	<p>1× 5 =5</p> <p>अंक</p>
II.	<p>“बोले चितइ परसु की ओरा” पंक्ति में परसु का अर्थ है –</p> <p>क. शास्त्र ख. फरसा ग. धनुष घ. कवच</p>	
III.	<p>“बालकु बोलि बधउँ नहिं तोही” में परशुराम का कथन किसका प्रतीक है?</p> <p>क. करुणा का ख. क्षमा और अहंकार दोनों का ग. सरलता का घ. विवेक का</p>	
IV.	<p>कथन और कारण पढ़कर उत्तर दीजिये -</p> <p>कथन (A): लक्ष्मण ने परशुराम को ‘देव’ कहकर संबोधित किया। कारण (R): लक्ष्मण परशुराम का सम्मान करते हुए भी व्यंग्य कर रहे थे। क. A और R दोनों सही हैं तथा R, A की सही व्याख्या है। ख. A सही है, पर R गलत है। ग. A गलत है, पर R सही है। घ. दोनों गलत हैं।</p>	
V.	<p>कथन और कारण पढ़कर उत्तर दीजिये -</p> <p>कथन (A): “गर्भन्ह के अर्भक दलन परसु मोर अति घोर” से परशुराम के स्वभाव की कठोरता झलकती है। कारण (R): वे अपने परशु को केवल प्रतीकात्मक रूप से प्रयोग करते थे। क. A और R दोनों सही हैं तथा R, A की सही व्याख्या है। ख. A सही है, पर R गलत है। ग. A गलत है, पर R सही है। घ. दोनों गलत हैं।</p>	
10.	<p>क्षितिज-2 की निर्धारित कविताओं के आधार पर निम्नलिखित चार प्रश्नों में से किन्हीं तीन प्रश्नों के उत्तर 25 से 30 शब्दों में लिखिए :</p> <p>क गोपियों ने स्वयं को अबला और भोली कहा है ? ऐसा कहने के पीछे क्या कारण हो सकता है ?</p>	<p>2× 3</p>

ख	बिहसि लखनु बोले मृदु बानी। अहो मुनीसु महा भटमानी॥	=6 अंक
पुनि पुनि मोहि देखाव कुठारू। चहत उड़ावन फूँकि पहारू॥	उपर्युक्त पंक्ति का आशय स्पष्ट कीजिए ।	
ग	आत्मकथ्य कविता के माध्यम से प्रसाद जी के व्यक्तित्व की जो झलक मिलती है, उसका चित्रांकन कीजिए ।	
घ	एक संगतकार गायक के गायन में किस प्रकार की जिम्मेदारी निभाता है?	
संगतकार कविता के अनुसार उत्तर दीजिए ।		
11.	पूरक पाठ्य पुस्तक कृतिका-2 के निर्धारित पाठों पर आधारित निम्नलिखित तीन प्रश्नों	
में से किन्हीं दो का उत्तर लगभग 50 से 60 शब्दों में लिखिए :		
क	भोलानाथ और उसके साथियों के खेल और खेलने की सामग्री थी जिससे वे एक	4× 2 =8 अंक
साथ खेलते थे । आपकी भी कुछ खेल सामग्रियाँ होंगी । भोलानाथ और उसके		
साथियों के खेल और खेलने की सामग्री, आपके खेल और खेलने की सामग्री से		
किस प्रकार भिन्न है?		
ख	धर्म चक्र को लेखिका ने कहाँ देखा था ? उसे देखकर लेखिका के मन में उपजे	
विचारों को लिखिए ।		
ग	हिरोशिमा पर लिखी कविता लेखक के अंतः व बाह्य दोनों दबाव का परिणाम है	
यह आप कैसे कह सकते हैं? मैं क्यों लिखता हूँ? के आधार पर बताइए ।		

ਖੰਡ - 'ਘ'

(रचनात्मक लेखन)

12.	<p>निम्नलिखित विषय-वस्तुओं में से किसी एक विषय पर लगभग 120 शब्दों में अनुच्छेद संकेत बिंदुओं के आधार पर लिखिए ।</p> <p>क. साइबर सुरक्षा : जागरूकता ही समाधान</p> <p>संकेत बिंदु :-</p> <ul style="list-style-type: none"> भूमिका साइबर सुरक्षा का अर्थ वर्तमान में चर्चा का कारण जागरूकता का प्रभाव <p>ख. सौर ऊर्जा : सस्ती और स्वच्छ ऊर्जा</p> <p>संकेत बिंदु :-</p> <ul style="list-style-type: none"> भूमिका सौर ऊर्जा का स्रोत देश के लिए क्यों आवश्यक सौर ऊर्जा से लाभ <p>ग. अंतरराष्ट्रीय महिला दिवस</p> <p>संकेत बिंदु :-</p> <ul style="list-style-type: none"> भूमिका अंतरराष्ट्रीय महिला दिवस उद्देश्य 	6	अंक
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	<p>संसार की लगभग आधी आबादी महिलाओं की स्थिति पर प्रभाव</p>	
13.	<p>निम्नलिखित में से किसी एक विषय पर लगभग 100 शब्दों में पत्र लिखिए -</p> <p>क. आप सागर/श्वेता हैं। आपके नगर में सड़क की खराब स्थिति के कारण दुर्घटनाएँ हो रही हैं। नगर पालिका के अधिकारी को पत्र लिखकर समस्या से अवगत कराएँ और सड़क सुधार की मांग करें।</p> <p>अथवा</p> <p>ख. आप सागर/श्वेता हैं। आपको अपने नगर में “स्वच्छता अभियान” के आयोजन के लिए स्थानीय नगरपालिका से सहयोग चाहिए। सहयोग की मांग करते हुए नगरपालिका अधिकारी को पत्र लिखकर कीजिए।</p>	5 अंक
14.	<p>क. आप राजन/रजनी हैं। केंद्रीय विद्यालय संगठन में हिंदी शिक्षक पद खाली हैं। आप उस पद के योग्य हैं। इसके लिए अपनी योग्यता और अनुभव का उल्लेख करते हुए एक स्ववृत्त तैयार कीजिए</p> <p>अथवा</p> <p>ख. आप राजन/रजनी हैं। आपका खाता स्टेट बैंक ऑफ इंडिया के सरोजनीनगर दिल्ली शाखा में है। आपके बैंक खाते में नेट बैंकिंग की सुविधा प्राप्त करने के लिए स्टेट बैंक ऑफ इंडिया के प्रबंधक को लगभग 80 शब्दों में ईमेल लिखिए।</p>	5 अंक
15.	<p>क. “स्वच्छ भारत अभियान” के तहत लोगों को जागरूक करते हुए एक आकर्षक व छोटा विज्ञापन लगभग 40 शब्दों में तैयार कीजिए।</p> <p>अथवा</p> <p>ख. “प्लास्टिक मुक्त सप्ताह” कार्यक्रम में भाग लेने के लिए लोगों को आमंत्रित करते हुए देश के पर्यावरण मंत्री का एक संदेश लगभग 40 शब्दों में तैयार कीजिए।</p>	4 अंक

**KENDRIYA VIDYALAYA SANGTHAN, BHUBNESWAR REGION
PRE-BOARD EXAMINATION (2025-26)
CLASS X
SUBJECT: ARTIFICIAL INTELLIGENCE (417)**

MAXIMUM MARKS:=80

MAXIMUM TIME ALLOWED: 2HRS

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of **21** questions in **two** sections: **Section A & Section B**.
3. Section A has Objective type questions whereas **Section B** contains Subjective type questions.
4. 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.
5. All questions of a particular section must be attempted in the correct order.

6. SECTION A- OBJECTIVE TYPE QUESTIONS (24 MARKS):

- i. This section has **05** questions.
- ii. Marks allotted are mentioned against each question/part.
- iii. There is no negative marking.
- iv. Do as per the instructions given.

7. SECTION B-SUBJECTIVE TYPE QUESTIONS (26 MARKS):

- i. This section has **16** questions.
- ii. A candidate has to do **10** questions.
- iii. Do as per the instructions given.
- iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

iv.	<p>A weekly planner helps in:</p> <ul style="list-style-type: none"> (a) Wasting time (b) Avoiding work (c) Organizing tasks and managing time (d) Increasing confusion 	1
v.	<p>What is the meaning of 'risk-taking' in entrepreneurship?</p> <ul style="list-style-type: none"> (a) Avoiding all business activities (b) Taking unsafe decisions blindly (c) Making calculated decisions with possible outcomes (d) Waiting for others to start a business 	1
vi.	<p>A village community decides to start an organic farming initiative. They use natural compost, avoid synthetic pesticides, and promote soil health. This initiative is a direct application of green skills in:</p> <ul style="list-style-type: none"> (a) Industrial waste management (b) Sustainable agriculture (c) Energy conservation (d) Waste to energy conversion 	1

iv.	Deep learning is best applied in which scenario? a) large image datasets b) Structured tabular data c) small dataset d) Binary classification	1
v.	Identify the given Chatbot type: It follows a fixed script and cannot understand new questions.	1
vi.	A school trains an AI model to predict student's exam scores based on study hours. What should the school do to ensure the model performs well on new students? (a) Train on all student data (b) Train on 80% of data and test on 20% (c) Only test the AI (d) Use one student's data	1
Q.4	Answer any 5 out of the given 6 questions (1x5= 5 marks)	
i.	Divya was learning neural networks. She understood that there were three layers in a neural network. Help her identify the layer that does processing in the neural network. (a) Output layer (b) Hidden layer (c) Input layer (d) Data layer	1
ii.	Regression is mainly used for: a) Grouping unlabeled data b) Predicting categories c) Predicting continuous numerical values d) Detecting emotions from text	1
iii.	What does overfitting indicate in model evaluation? a) The model performs poorly on training data b) The model performs well on both training and test data c) The model performs well on training data but poorly on test data d) The model has high bias	1
iv.	Which model is commonly used for color representation in digital images? (a) CMYK (b) RGB (c) HSV (d) RYB	1
v.	_____ is an NLP tool to express an opinion, whether the underlying sentiment is positive, negative, or neutral. (a) Text Classification (b)Machine Translation (c) Sentiment Analysis (d) Automatic Text Summarization	1
vi.	A city has implemented a traffic monitoring system. Cameras are installed at major intersections to detect vehicle count, identify traffic violations, and adjust signal timings automatically. The system also captures images of vehicles breaking traffic rules and sends e-challans to their owners. Name the concept.	1
Q.5	Answer any 5 out of the given 6 questions (1x5= 5 marks)	

SECTION B:SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 5 questions on Employability Skills (2x3=6marks)

Answer each question in 20 – 30 words.

Q.6	What do you understand by feedback?	2
Q.7	Define stress management. Mention any two stress management techniques.	2
Q.8	Explain the function of a firewall in computer security.	2
Q.9	List any two qualities of a successful entrepreneur.	2
Q.10	What are some eco-friendly alternatives to plastic bags?	2

Answer any 4 out of the given 6 questions in 20 –30 words each (2x4 =8marks)

Answer any 4 out of the given 5 questions in 20–30 words each (2x4=8marks)		
Q.11	What is the necessity for Ethical Frameworks in AI development?	2
Q.12	An autonomous vehicle is learning to navigate through a city and receives rewards for safe driving and penalties for violations.	2

	a) What kind of learning is being implemented? b) How does this method help the AI system learn to perform the task better over time?	
Q.13	Explain train-test split with an example.	2
Q.14	What is image resolution?	2
Q.15	What is the role of NLP in chatbots?	2
Q.16	Why is it important to avoid overfitting in AI models?	2

Answer any 3 out of the given 5 questions in 50–80 words each (4x3=12 marks)

Q.17	A city government wants to implement a computer vision-based traffic monitoring system to detect traffic violations like running red lights and illegal parking. The system uses real-time video feeds and AI to automatically identify license plates and send violation notices. What are the key ethical considerations for successfully deploying this computer vision application, and how can these challenges be addressed?	4													
Q.18	Explain Convolutional Neural Network with respect to Computer Vision.	4													
Q.19	Explain the Perceptron Model with the given context. (Illustrative Model) Context: A manager is deciding whether to approve a work-from-home request from an employee. Factors: Does the employee perform well when working remotely? Are there any Upcoming team meetings or collaborative projects? Does the company's policy support remote work? Is it beneficial for both the employee and the company?	4													
Q.20	Normalize the given text for the given document below: Corpus: Raj and Vijay are best friends. They play together with other friends. Raj likes to play football but Vijay prefers to play online games. Raj wants to be a footballer. Vijay wants to become an online gamer.	4													
Q.21	An AI model made the following digital payment usage prediction in a state where government has recently launched the facility of digital payments: <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" rowspan="2">Confusion Matrix</th> <th colspan="2">Reality</th> </tr> <tr> <th>Yes</th> <th>No</th> </tr> </thead> <tbody> <tr> <th rowspan="2">Prediction</th> <th>Yes</th> <td>50</td> <td>40</td> </tr> <tr> <th>No</th> <td>12</td> <td>10</td> </tr> </tbody> </table> (i) Identify the total number of wrong predictions made by the model. (ii) Calculate precision, recall and F1 Score.	Confusion Matrix		Reality		Yes	No	Prediction	Yes	50	40	No	12	10	4
Confusion Matrix				Reality											
		Yes	No												
Prediction	Yes	50	40												
	No	12	10												

KENDRIYA VIDYALAYA SANGATHAN, BHUBANESWAR REGION

PRE BOARD EXAMINATION (2025-26)

CLASS -X

SUBJECT- ENGLISH COMMUNICATIVE (101)

Maximum Time Allowed- 3 Hrs.

Maximum Marks-80

SET-2

General Instructions:

Read the following instructions very carefully and strictly follow them:

I. This question paper has 12 questions. All questions are compulsory.

II. This question paper contains four sections:

Section A: Reading Skills,

Section B: Writing Skills

Section C: Grammar

Section D: Literature Textbook

III. Attempt all questions based on specific instructions for each part. Write the correct question number and part thereof in your answer sheet.

IV Separate instructions are given with each question/part, wherever necessary.

V. Adhere to the prescribed word limit while answering the questions

SECTION-A: READING (22 MARKS)

1. Read the following passage carefully.

1. There are two types of diabetes, insulin-dependent and non-insulin-dependent. Between 90-95% of the estimated 13-14 million people in the United States with diabetes have non-insulin-dependent or Type 2 diabetes. Because this form of diabetes usually begins in adults over the age of 40, it is called adult-onset diabetes. Its symptoms often develop gradually and are hard to identify at first; therefore, nearly half of all people with diabetes do not know they have it. This can be particularly dangerous because untreated diabetes can cause damage to the heart, blood vessels, eyes, kidneys, and nerves. While the causes, short-term effects, and treatments of the two types of diabetes differ, both types can cause the same long-term health problems.
2. What causes Type 2 diabetes? There is no simple answer to this question. While eating sugar, for instance, doesn't cause diabetes, it only causes weight gain. Scientists do not fully understand why obesity increases someone's chances of developing diabetes, but they believe obesity is a major factor leading to Type 2 diabetes.
3. Age, sex, weight, physical activity, diet, lifestyle, and family health history all affect someone's chances of developing Type 2 diabetes. Experts now know that diabetes is more common in African Americans, Hispanics, Native Americans, and Native Hawaiians than in whites. While the chances of developing diabetes increase with age, gender isn't a risk factor.
4. Both types affect the body's ability to use digested food for energy. Diabetes does not interfere with digestion, but it does prevent the body from using glucose (commonly known as sugar), for energy. After a meal, the normal digestive system breaks food down into glucose. The blood carries the glucose or sugar throughout the body, causing blood glucose levels to rise. In response to this rise, the hormone insulin is released into the bloodstream and signals the body "tissues to burn the glucose for

fuel, which causes blood glucose levels to return to normal. The glucose that the body does not use right away is stored in the liver, in the muscles, or in fat.

5. In both types of diabetes, however, this normal process malfunctions. A gland called the pancreas, found just behind the stomach, makes insulin. In people with insulin-dependent diabetes, the pancreas does not produce insulin at all, so they take daily insulin injections to survive. This condition usually begins in childhood and is known as Type 1 diabetes.
6. In some cases, people with non-insulin-dependent diabetes usually produce some insulin in their pancreas, but their bodies' tissues do not respond well to the insulin signal and therefore do not metabolise the glucose properly, a condition known as insulin resistance. Scientists have identified two causes of insulin resistance.
7. There's no cure for diabetes yet. However, there are ways to alleviate its symptoms. In 1986, a National Institute of Health panel of experts recommended that the best treatment for non-insulin-dependent diabetes is a diet that helps one maintain a normal weight and pays particular attention to a proper balance of the different food groups. Many experts, including those in the American Diabetes Association, recommend a diet wherein 50-60% of daily calories come from carbohydrates, 12-20% from protein, and no more than 30% from fat.

Q1. Answer the following questions based on the passage. (12 Marks)

(i) Type 2 diabetes also called adult-onset diabetes because..... (1)

(a) it occurs in childhood. (c) only adults can treat it.
(b) it usually begins after the age of 40. (d) it affects the liver primarily.

(ii) Complete the following with the correct option from those given in brackets. (1)

In the line 'symptoms often develop gradually and are hard to identify at first', the word 'gradually' suggests _____ (unexpectedly/immediately/slowly over time/irregularly). (Paragraph 1)

(iii) State two reasons for the development of Type 2 diabetes in individuals. Answer in 30–40 words. (2)

(iv) The phrase 'this normal process malfunctions' refer to _____ (Paragraph 5) (1)

(a) Food getting stuck in the stomach
(b) Glucose is not being digested
(c) The body's inability to use glucose due to insulin issues
(d) The liver overproduces insulin

(v) The phrase 'the body's tissues do not respond well to the insulin signal' (Paragraph 6) symbolizes _____ (1)

(a) hunger and exhaustion
(b) The failure of communication between insulin and body cells
(c) high levels of insulin production
(d) increased fat storage

(vi) The most suitable title for paragraph 7 would be _____ (1)

(a) The Best Insulin Injections
(b) A Cure for Diabetes
(c) Dietary Recommendations for Managing Type 2 Diabetes
(d) The Failure of Medication in Diabetes Control

(vii) Identify the phrase from paragraph 1 that highlights the serious consequences of untreated diabetes. (2)

(viii) Fill in the blank by choosing the appropriate option from those given in the brackets. (1)

Paragraph 2 includes a _____ (viewpoint/fact/suggestion) about the unclear causes of Type 2 diabetes.

(ix) Explain the connection between weight, obesity, and Type 2 diabetes as understood by scientists, despite the incomplete understanding of the link. Answer in 20-30 words. (Para-2) (2)

2. Read the following report-based passage carefully. (10)

1. EDUCATIONAL CAMPAIGN (NATIONAL SCIENCE AWARENESS WEEK – 2025)	2. EARTH CARE EXPO – 2025
<p>April 1 – 7</p> <p>The National Science Awareness Week 2025 will be observed in schools, colleges and research institutions across India. With the theme 'Science for Sustainable Living', this week-long campaign will focus on encouraging curiosity, critical thinking and practical applications of science in daily life.</p> <p>Science clubs will conduct experiments, model-making contests and eco-science exhibitions. A special focus will be on green technology, water conservation and low-carbon solutions. Renowned scientists will deliver guest lectures and hold Q&A sessions with students. The goal is to help learners see science as a problem-solving tool to address real-world challenges.</p>	<p>June 3 – 5</p> <p>The Earth Care Expo 2025 is an environmental awareness event scheduled to take place at the India Green Forum, Jaipur. The theme for this edition is 'Restore, Reuse, Revive'. The event will feature stalls on sustainable living, plastic alternatives, organic gardening and clean energy.</p> <p>Workshops will be held on composting, vertical farming and upcycling waste. A key attraction is the Green Innovation Zone where young eco-entrepreneurs will present creative ideas to reduce environmental harm. School groups can take part in nature art competitions, green pledge walls and eco-games. The Expo aims to nurture climate-conscious citizens of tomorrow.</p>

Answer the following questions:

(i) Justify why the tag 'Science for Sustainable Living' is more appropriate for the National Science Awareness Week than 'Restore, Reuse, Revive'? (2)

(ii) Complete the following with the correct option. (1)

The Earth Care Expo 2025 will be held in _____

(a) Delhi (b) Lucknow (c) Jaipur (d) Mumbai

(iii) State which of the following is True. (1)

- (a) Science Awareness Week is only for scientists and researchers.
- (b) Earth Care Expo promotes single-use plastic.
- (c) The Green Innovation Zone encourages eco-friendly entrepreneurship.

(iv) Interpret the idea that Science Week helps learners 'see science as a problem-solving tool' and its impact on developing critical thinking skills. (1)

(v) What might be the most likely reason for including composting and vertical farming workshops at the Earth Care Expo? (1)

- (a) To train scientists in engineering
- (b) To promote sustainable home practices
- (c) To increase online learning
- (d) To launch new fashion products

(vi) Fill in the blank by choosing the correct option from those given in the brackets. (1)

The eco-science exhibitions are likely intended for _____ (students/tourists) to demonstrate scientific ideas that protect the environment.

(vii) If the Earth Care Expo focuses on practical environmental habits, what does the Science Awareness Week most likely focus on? (1)

(a) Exploring scientific history (b) Scientific theories only
(c) Developing a science-based approach to daily life (d) Promoting commerce and trade

(viii) Analyze the reason for Science Week lasting seven days, while the Earth Care Expo concludes in three, in terms of their objectives and scope. (2)

SECTION-B: WRITING (24 MARKS)

3. Write an application in not more than 50 words to the principal requesting permission to change the section. You are Vikas Malhotra, Class X-B. (3)

4. Describe in 100 words about an expensive item which was very dear to you but have no longer use. (4)

5.(A) You are Ritesh/Ritika residing at F-16/B, Lane -II, Lajpat Nagar, Delhi. You find it disturbing that, despite a ban on the use of polythene bags, their use is rampant in the city. Write a letter to the Editor of a National Daily, in not more than 120 words, expressing your concern about the apathy of people towards environmental degradation. You can use the ideas you may have gathered from **MCB Unit 4: Environment**. (7)

Or

(B) "Atithi Devo Bhava" has been a practice since times immemorial. The tourism promotional drives are not sufficient to attract the tourists. It is important to sensitize those in the tourism industry, they must treat the tourists with respect, ensure their safety and support them. Write a letter to the Editor of a national daily expressing your concern, Use your own ideas along with the ideas from the **Unit "Travel and Tourism"** Write the letter in 120 words. (7)

6.(A) Make in India is an initiative by the Government of India. It intends to create employment for the youth of India and help bring best practices to Indian businesses. Write an article for a magazine in about 120 words on its impact on creating employment for the youth of India. You can use the following clues along with the ideas that you may have gathered from **MCB Unit 6: National Integration**. (8)

Clues:

- To give more incentive to businesses
- To lure businessmen
- Create employment opportunities
- Attract capital and technological investment
- Results already visible
- Suggestions for improvement

Or

(B) "The sports field is termed as a minifield of life". Whatever we experience or learn here serves as an invaluable experience for us. Write an article on 'More Lessons are Learnt on the Sports Field than in the classroom' in about 150 words. You are Sarika/Sandeep. You can use the following clues along with ideas from **MCB Unit 1: Health and Medicine and Unit 2: Education**.

Clues:

- Cooperation, teamwork, leadership
- Tolerance and understanding
- No caste and religious prejudice
- Healthy life

SECTION-C (GRAMMAR-10 MARKS)

7. Complete the following passage, choosing the correct options. (1x3=3)

He screamed so loudly that the pigeons pecking (a) _____ the scattered grains in (b) _____ courtyard (c) _____ off in a flurry.

(a) (i) on (ii) at (iii) over (iv) in
(b) (i) the (ii) a (iii) an (iv) some
(c) (i) take (ii) takes (iii) took (iv) taking

8. In the following passage, one word has been omitted in each line. Write the missing word along with the word that comes before and the word after. The first one has been done as an example. (1X4=4)

		Before	Omission	After
Reading books great source of knowledge.	e.g.	books	is	great
It helps develop language skills.	(a)	.....	.....	.....
Good books guide inspire readers.	(b)	.....	.....	.....
People should choose books care.	(c)	.....	.....	.....
Libraries provide access all.	(d)	.....	.....	.....

9. Do as directed. (1+2=3)

(i) **Rearrange the following jumbled word/phrases (b) in the given information to create a meaningful sentence.**

a. The teeth are one of the most neglected parts of the body. Brushing teeth can remove almost 50% of your dental woes.

b. good/and/oral/health/ at an early/ dental/ need /hygiene/ inculcated/to/age/be

(ii) **Report the dialogues to complete the paragraph that follows.**

Mayank: I heard from your friend that you were very sick last week. How do you feel now?

Ritika: Yes, it was a tough week. I feel better now. Thank you for asking.

Mayank told Ritika that he had heard from your friend that she was very sick the previous

week. He further asked how (a) _____ Ritika answered in affirmative that (b)

_____ week. She further added that she felt better then and thanked Mayank for asking.

SECTION-D: LITERATURE (26 MARKS)

10. Read the given extract and answer the questions briefly, for any two extracts, of the three, given. (2 x 4=8)

(A). “I believe it’s ill”, said Louisa Mebbin, loudly in Hindustani, for the benefit of the village headman, who was in ambush in a neighbouring tree.

“Hush!” said Mrs. Packletide, and at that moment the tiger commenced ambling towards its victim.

“Now, now!” urged Miss Mebbin with some excitement; “if he doesn’t touch the goat, we needn’t pay for it.’ (**Mrs. Packletide’s Tiger**)

- (i) What are the traits of Louisa Mebbin displayed here? (1)
- (ii) Why did Louisa talk loudly in Hindustani? (1)
- (iii) Where was Louisa Mebbin at that time? (1)
- (iv) Which word/phrase in the extract means the same as “waiting to attack by surprise”? (1)

(B). “And on the pedestal, these words appear;
 “My name is Ozymandias, king of kings:
 Look upon my works, ye Mighty, and despair!” (**Ozymandias**)

- (i) What was carved on the pedestal of the statue? (1)
- (ii) What is the tone of the poet? (1)
- (iii) Explain: Look upon my works, ye Mighty, and despair. (1)
- (iv) What poetic devices do you find in the above extract? (1)

(C). “You know not what you do: do not consent
 That Antony spoke at his funeral.
 Know you how much the people may be moved
 by that which he will utter!” (**Julius Caesar**)

- (i) Identify the speaker of the given lines. (1)
- (ii) Whose ‘funeral’ is being talked about? (1)
- (iii) Why did the speaker raise this objection? (1)
- (iv) Find the word which is exactly the antonym of the word ‘dissent’ from the extract. (1)

11. Answer ANY FIVE of the following six questions in about 30-40 words each. (5x2=10)

- (i) Explain why the narrator was not in a position to contradict Jenkins? (**The Shady Plot**)
- (ii) State the special touches Patol Babu added to his role to make it more authentic. (**Patol Babu: Film Star**)
- (iii) Evaluate how the behaviour of the post officials towards Ali reveals their lack of empathy and understanding. (**The Letter**)
- (iv) Analyse how the attitude of Mrs. Slater and Mrs. Jordan towards their father reflects their sense of responsibility and family values. (**The Dear Departed**)
- (v) Explain how Nicola and Jacopo’s actions demonstrate their strong sense of duty, sacrifice, and family values. (**The Two Gentlemen of Verona**)
- (vi) Describe the purpose of the game ‘Dragon quest’ and how it encourages imagination and problem-solving skills. (**Virtually True**)

12. Answer any one of the following two questions in about 150 words. (1 x 8=8)

(A) The poems, “Snake” and “The Rhyme of The Ancient Mariner” remind us of the fact that animals too have a right to life which we have no right to deny them. Describe how the poets portray human guilt and the consequences of acting against nature.

OR

(B) ‘Jealousy in Mrs. Packletide leads to vanity, pride, and hollow competition’ and in “The Dear Departed”, greed over inheritance breaks trust and family values”. Discuss the evils of jealousy that can be learnt from Saki’s story ‘Mrs. Packletide’s Tiger’ and Stanley Houghton’s drama ‘The Dear Departed’ in about 150 words.

KENDRIYA VIDYALAYASANGATHAN ,BHUBANESWAR REGION SET-2

PRE-BOARD EXAMINATION (2025-26)

CLASS :X

SUBJECT: MATHEMATICS (041)

Maximum Marks: 80

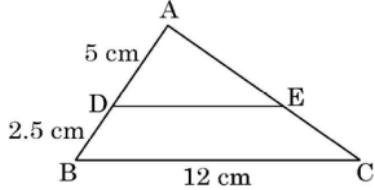
Maximum Time Allowed: 3 Hours

General Instructions :

Read the following instructions very carefully and strictly follow them :

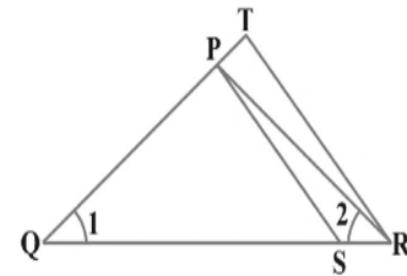
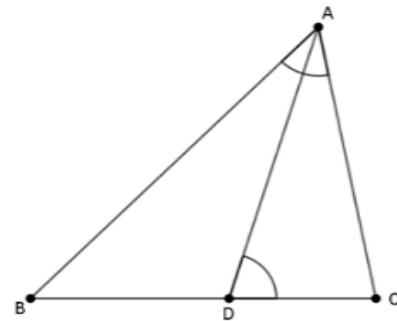
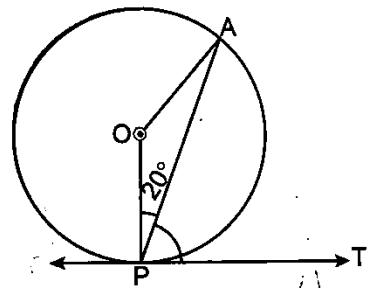
- (i) This question paper contains 19 questions. All questions are compulsory.
- (ii) This question paper is divided into five Sections – A, B, C, D and E.
- (iii) In Section A, Questions no. 1-18 are Multiple Choice Questions (MCQs) and questions no. 19 and 20 are Assertion- Reason based questions of 1 mark each.
- (iv) In Section B, Questions no. 21-25 are Very Short Answer (VSA) type questions, carrying 2 marks each.
- (v) In Section C, Questions no. 26 -31 are Short Answer (SA) type questions, carrying 3 marks each.
- (vi) In Section D, Questions no. 32 - 35 are Long Answer (LA) type questions carrying 5 marks each.
- (vii) In Section E, Questions no. 36-38 are case study based questions carrying 4 marks each with sub parts of the values of 1, 1 and 2 marks each respectively.
- (viii) There is no overall choice. However, an internal choice in 2 questions of Section B, 2 questions of Section C and 2 questions of Section D has been provided. An internal choice has been provided in all the 2 marks questions of Section E.
- (ix) Draw neat figures wherever required. Take $\pi = 22/7$ wherever required if not stated .

SECTION A(Section A has 20 MCQ type questions carrying 01 marks each)

1	The common difference of an A.P. in which $a_{15} - a_{11} = 48$, is (a) -12 (b) 16 (c) 12 (d) -16	1
2	If p and q are the zeroes of the quadratic polynomial $f(x) = 2x^2 - 7x + 3$, find the value of $p + q - pq$ is (a) 1 (b) 2 (c) 3 (d) None of these	1
3	If the HCF (2520, 6600) = 40 and LCM (2520, 6600) = $252 \times k$, then the value of k is (a) 1650 (b) 1600 (c) 165 (d) 1625	1
4	In the given figure $\triangle ABC$ is shown. DE is parallel to BC. If $AD = 5$ cm, $DB = 2.5$ cm and $BC = 12$ cm, then DE is equal to (a) 10 cm (b) 6 cm (c) 8 cm (d) 7.5 cm	1
		
5	The graph of equations $x + 2y - 4 = 0$ and $2x + 4y - 12 = 0$ represents: (a) intersecting lines (b) parallel lines (c) coincident lines (d) none	1
6	Which of the following is not a quadratic equation (a) $x^2 + 3x - 5 = 0$ (b) $x^2 + x^3 + 2 = 0$ (c) $3 + x + x^2 = 0$ (d) $x^2 - 9 = 0$	1
7	The ratio in which x-axis divides the join of (2, -3) and (5, 6) is: (a) 1: 2 (b) 3 : 4 (c) 1: 3 (d) 1: 5	1
8	If one root of equation $4x^2 - 2x + k - 4 = 0$ is reciprocal of the other. The value of k is: (a) -8 (b) 8 (c) -4 (d) 4	1
9	The value of k for which the system of equations $3x - y + 8 = 0$ and $6x - ky + 10 = 0$ has infinitely many solutions: (a) -2 (b) 1/2 (c) 2 (d) -1/2	1

10	<p>In the given figure, PA and PB are tangents from external point P to a circle with centre C and Q is any point on the circle. Then the measure of $\angle AQB$ is (a) $62\frac{1}{2}^\circ$ (b) 125° (c) 55° (d) 90°</p>	1														
11	<p>If θ is an acute angle of a right-angled triangle, then which of the following equation is not true? (a) $\sin\theta \cdot \cot\theta = \cos\theta$ (b) $\cos\theta \cdot \tan\theta = \sin\theta$ (c) $\operatorname{cosec}^2\theta - \cot^2\theta = 1$ (d) $\tan^2\theta - \sec^2\theta = 1$</p>	1														
12	<p>When the shadow of a pole h metres high is $\sqrt{3}h$ metres long, the angle of elevation of the Sun is (a) 45° (b) 60° (c) 30° (d) 15°</p>	1														
13	<p>If the radius of a sphere is doubled, then the ratio of the original and new surface areas is (a) $1 : 2$ (b) $2 : 1$ (c) $1 : 4$ (d) $4 : 1$</p>	1														
14	<p>If the circumference of a circle and the perimeter of a square are equal, then (a) Area of the circle = Area of the square (b) Area of the circle $>$ Area of the square (c) Area of the circle $<$ Area of the square (d) Nothing definite can be said about the relation between the areas of the circle and square.</p>	1														
15	<p>The runs scored by a batsman in 35 different matches are given below:</p> <table border="1"> <tr> <td>Runs Scored</td> <td>0-15</td> <td>15-30</td> <td>30-45</td> <td>45-60</td> <td>60-75</td> <td>75-90</td> </tr> <tr> <td>Frequency</td> <td>5</td> <td>7</td> <td>4</td> <td>8</td> <td>8</td> <td>3</td> </tr> </table> <p>The lower limit of the median class is (a) 15 (b) 30 (c) 45 (d) 60</p>	Runs Scored	0-15	15-30	30-45	45-60	60-75	75-90	Frequency	5	7	4	8	8	3	1
Runs Scored	0-15	15-30	30-45	45-60	60-75	75-90										
Frequency	5	7	4	8	8	3										
16	<p>The relation between mean, mode and median is (a) mode = $(3 \times \text{mean}) - (2 \times \text{median})$ (b) mode = $(3 \times \text{median}) - (2 \times \text{mean})$ (c) mean = $(3 \times \text{median}) - (2 \times \text{mode})$ (d) median = $(3 \times \text{mean}) - (2 \times \text{mode})$</p>	1														
17	<p>If $P(E) = 0.07$, then what is the probability of 'P(not E)'? (a) 0.93 (b) 0.95 (c) 0.89 (d) 0.90</p>	1														
18	<p>Abag has 5 white marbles, 8 red marbles and 4 purple marbles. If we take a marble randomly, then what is the probability of not getting purple marble? (a) 0.5 (b) 0.66 (c) 0.08 (d) 0.77</p>	1														
<p>In the following questions no 19 and 20, a statement of assertion is followed by a statement of reason. Mark the correct choice as:</p> <p>(a) Both assertion and reason are true and reason is the correct explanation of assertion. (b) Both assertion and reason are true but reason is not the correct explanation of assertion. (c) Assertion is true but reason is false. (d) Assertion is false but reason is true.</p>																
19	<p>Assertion(A): A horse is tied to a peg at one corner of a square shaped grass field of side 15 m by means of a 7 m long rope. The area of that part of the field in which the horse can graze is $77/2$ sq.m.</p> <p>Reason(R): Area of the quadrant = $\frac{90^\circ}{360^\circ} \times \pi r^2$</p>	1														
20	<p>Assertion(A): $\sin(A + B) = \sin A + \sin B$.</p> <p>Reason(R): For any angle θ, $1 + \tan^2\theta = \sec^2\theta$.</p>	1														
SECTION B (Section B has 05 questions carrying 02 marks each)																
21	<p>Show that 6^n cannot end with digit 0 for any natural number 'n'.</p>	2														

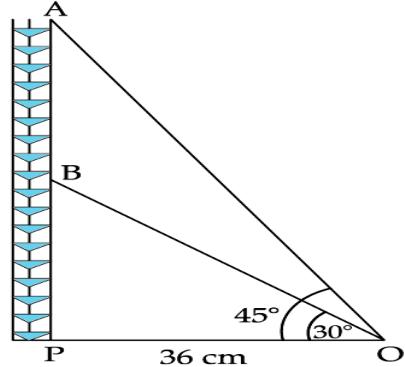
22	Find the zeroes of the polynomial $4s^2 - 4s + 1$ and verify the relationship between the zeroes and the coefficients.	2
23	Find the point P on x-axis equidistant from the points A(-1,0) and B(5,0) OR Find the type of triangle ABC formed whose vertices are A(1, 0), B(-5, 0) and C(-2, 5).	2
24	PT is tangent to the circle with centre at O and $\angle OPA = 20^\circ$. Find $\angle APT$ OR From an external point P, tangents PA and PB are drawn to a circle with center O. If CD is the tangent to the circle at a point E and PA = 14cm, find the perimeter of ΔPCD .	2
25	A card is drawn at random from a well shuffled pack of 52 cards. Find the probability of getting (i) a red king (ii) a queen or a jack	2
SECTION C (Section C has 06 questions carrying 03 marks each)		
26	Prove that $\sqrt{5}$ is an irrational number.	3
27	Solve the following linear equations: $152x - 378y = -74$ and $-378x + 152y = -604$	3
28	D is a point on the side BC of a triangle ABC such that $\angle ADC = \angle BAC$, prove that $CA^2 = CB \cdot CD$ OR In the figure $\frac{QR}{QS} = \frac{QT}{PR}$ and $\angle 1 = \angle 2$. Show that $\Delta PQS \sim \Delta TQR$.	3
29	Prove that the length of tangents drawn from an external point to a circle are equal.	3
30	Find the coordinates of the points which divide the line segment joining A (-2, 2) and B (2, 8) into four equal parts.	3



31	<p>A chord is subtending an angle of 90° at the centre of a circle of radius 14 cm. Find the area of the corresponding minor segment of the circle.</p> <p>OR</p> <p>A chord of a circle of radius 15 cm subtends an angle of 60° at the centre. Find the area of the corresponding minor sector and major sector of the circle. (Take $\pi = 3.14$, $\sqrt{3} = 1.732$)</p>	3																																
SECTION D (Section D has 04 questions carrying 05 marks each).																																		
32	Prove that $(\sin A + \operatorname{cosec} A)^2 + (\cos A + \sec A)^2 = 7 + \tan^2 A + \cot^2 A$	5																																
33	<p>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 11 km/h more than that of the passenger train, find the average speed of the two trains.</p> <p>OR</p> <p>Sum of the areas of two squares is 468 m^2. If the difference between their perimeters is 24 m, find the sides of the two squares.</p>	5																																
34	<p>Prove that if a line is drawn parallel to one side of a triangle intersecting the other two sides in distinct points, then the other two sides are divided in the same ratio.</p> <p>Using the above theorem prove that a line through the point of intersection of the diagonals and parallel to the base of the trapezium divides the non parallel sides in the same ratio.</p>	5																																
35	<p>The government rescued 100 people after a train accident. Their ages were recorded in the following table. Find their mean age. (use Assume mean method)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Age (in years)</th><th style="text-align: left;">Number of people rescued</th></tr> </thead> <tbody> <tr><td>10 – 20</td><td>9</td></tr> <tr><td>20 – 30</td><td>14</td></tr> <tr><td>30 – 40</td><td>15</td></tr> <tr><td>40 – 50</td><td>21</td></tr> <tr><td>50 – 60</td><td>23</td></tr> <tr><td>60 – 70</td><td>12</td></tr> <tr><td>70 – 80</td><td>6</td></tr> </tbody> </table> <p>OR</p> <p>The median of the following data is 868. Find the values of x and y, if the total frequency is 100.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Class</th><th style="text-align: left;">Frequency</th></tr> </thead> <tbody> <tr><td>800 – 820</td><td>7</td></tr> <tr><td>820 – 840</td><td>14</td></tr> <tr><td>840 – 860</td><td>x</td></tr> <tr><td>860 – 880</td><td>25</td></tr> <tr><td>880 – 900</td><td>y</td></tr> <tr><td>900 – 920</td><td>10</td></tr> <tr><td>920 – 940</td><td>5</td></tr> </tbody> </table>	Age (in years)	Number of people rescued	10 – 20	9	20 – 30	14	30 – 40	15	40 – 50	21	50 – 60	23	60 – 70	12	70 – 80	6	Class	Frequency	800 – 820	7	820 – 840	14	840 – 860	x	860 – 880	25	880 – 900	y	900 – 920	10	920 – 940	5	5
Age (in years)	Number of people rescued																																	
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920 – 940	5																																	

SECTION E		
36	<p>The word ‘circus’ has the same root as ‘circle’. In a closed circular area, various entertainment acts including human skill and animal training are presented before the crowd. A circus tent is cylindrical up to a height of 8 m and conical above it. The diameter of the base is 28 m and the total height of the tent is 18.5 m.</p> <p>Based on the above, answer the following questions:</p> <ul style="list-style-type: none"> (i) Find the slant height of the conical part. (ii) Determine the floor area of the tent. (iii) (a) Find the area of the cloth used for making the tent. <p>(OR)</p> <ul style="list-style-type: none"> (b) Find the total volume of air inside an empty tent. 	
37	<p>A school has decided to plant some endangered trees on 51st World Environment Day in the nearest park. They have decided to plant those trees in few concentric circular rows such that each succeeding row has 20 more trees than the previous one. The first circular row has 50 trees.</p> <p>Based on the above given information, answer the following questions :</p> <ul style="list-style-type: none"> (i) How many trees will be planted in the 10th row ? (ii) How many more trees will be planted in the 8th row than in the 5th row ? (iii) (a) If 3200 trees are to be planted in the park, then how many rows are required ? <p>OR</p> <ul style="list-style-type: none"> (b) If 3200 trees are to be planted in the park, then how many trees are still left to be planted after the 11th row ? 	

38	<p>Radio towers are used for transmitting a range of communication services including radio and television. The tower will either act as an antenna itself or support one or more antennas on its structure. On a similar concept, a radio station tower was built in two Sections A and B. Tower is supported by wires from a point O. Distance between the base of the tower and point O is 36 cm. From point O, the angle of elevation of the top of the Section B is 30° and the angle of elevation of the top of Section A is 45°. Based on the above information, answer the following questions: (Take $\sqrt{3} = 1.732$)</p> <p>(i) Find the length of the wire from the point O to the top of section B. (ii) Find the distance AB. OR Find the area of ΔOPB. (iii) Find the height of the Section A from the base of the tower.</p>	1 2 1
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CLASS -X

SUBJECT- COMMUNICATIVE SANSKRIT (Code -119)

MAX. MARKS = 80

MAX.TIME ALLOWED = 03 HOURS

सामान्यनिर्देशः -

- कृपया सम्यक्तया परीक्षणं कुर्वन्तु यत् अस्मिन् प्रश्नपत्रे 08 पृष्ठानि मुद्रितानि सन्ति ।
- कृपया सम्यक्तया परीक्षणं कुर्वन्तु यत् अस्मिन् प्रश्नपत्रे 18 प्रश्नाः सन्ति ।
- अस्मिन् प्रश्नपत्रे चत्वारः भागाः सन्ति-

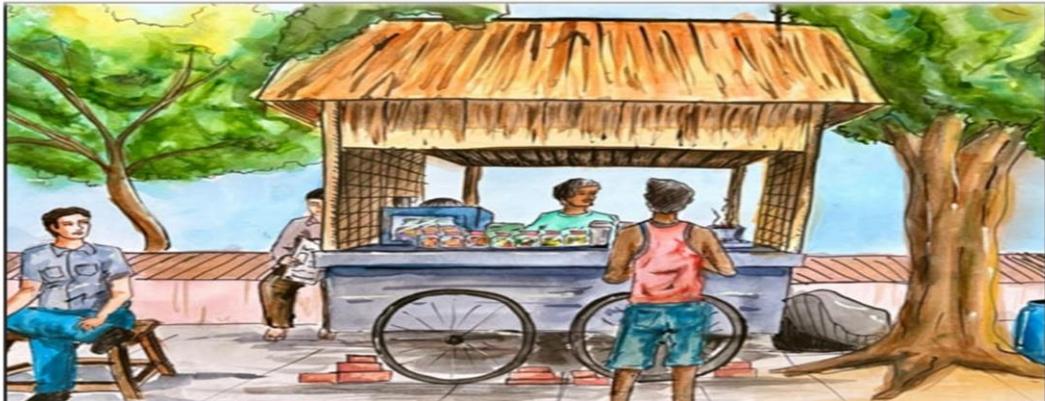
'क' भागः : अपठितावबोधनम् 10 अङ्काः
 'ख' भागः : रचनात्मककार्यम् 15 अङ्काः
 'ग' भागः : अनुप्रयुक्तव्याकरणम् 25 अङ्काः
 'घ' भागः : पठितावबोधनम् 30 अङ्काः

- प्रत्येकं भागम् अधिकृत्य उत्तराणि एकस्मिन् स्थाने क्रमेण लेखनीयानि ।
- उत्तरलेखनात् पूर्वं प्रश्नस्य क्रमाङ्कः अवश्यं लेखनीयः ।
- प्रश्नस्य क्रमाङ्कः प्रश्नपत्रानुसारम् एव लेखनीयः ।
- सर्वेषां प्रश्नानाम् उत्तराणि संस्कृतेन लेखनीयानि ।
- प्रश्नानां निर्देशाः ध्यानेन अवश्यं पठनीयाः ।

'क' भागः अपठित –अवबोधनम्

10 अङ्काः

1.	अधोलिखितं गद्यांशं पठित्वा प्रदत्तप्रश्नानाम् उत्तराणि संस्कृतेन लिखत - समाजे सज्जनाः तथैव दुर्जनाः अपि वर्तन्ते। सज्जनानां संगतिः सत्सङ्गतिः दुर्जनानां संगतिश्च कुसंगतिः भवति। सामाजिकः प्राणी संगतिं विना स्थातुं न शक्रोति। अतः मनुष्याय संगतिः अनिवार्या एव। सत्सङ्गत्या मनुष्यः सदैव उन्नतिं करोति कुसङ्गत्या तु सः पतनमार्गं नूनं पतति। गुणं विना कोटिपि मानवः सन्मानवः न भवति। सत्संगेन सज्जनः सन्मार्गम् अनुसरति। सत्संगस्य प्रभावेन मनुष्येषु शनैः शनैः गुणाः - बहिः निर्गच्छन्ति। संगस्य प्रभावः सर्वत्र दृश्यते। उक्तञ्च, " कोटोऽपि सुमनः संगात् आरोहति सतां शिरः" । सत्संगत्या मनुष्यः समाजे मानं प्राप्नोति किन्तु कुसंगतौ पतित्वा तु मनुष्यः अपयशः निन्दाम् अपमानमेव प्राप्नोति। अतः सर्वदा सत्संगतौ एव वक्तव्यम्। (I) एकपदेन उत्तरत- (केवलं प्रश्नद्वयम्) (क) केषां संगतिः सत्संगतिः भवति ? (ख) संगतिः कस्मै अनिवार्या एव अस्ति ? (ग) कुत्र सज्जनाः दुर्जनाः च वर्तन्ते ? (II) पूर्णवाक्येन उत्तरत (केवलं प्रश्नद्वयम्) (क) सत्संगेन मनुष्यः किं किं करोति ? (ख) कुसंगतौ पतित्वा मनुष्यः किं प्राप्नोति ? (ग) कया मनुष्यः पतनमार्गं नूनं पतति ? (III) अस्य अनुच्छेदस्य कृते उपयुक्तं शीर्षकं संस्कृतेन लिखत । (IV) भाषिककार्यम्- (क) 'आरोहति' इति क्रियापदस्य कर्तृपदं गद्यांशात् चित्वा लिखत ? (i) संगतम् (ii) अनुसरणम् (iii) सुमन (iv) कीटः (ख) 'कुमार्गम्' इत्यस्य विलोमपदं चित्वा लिखत ? (i) सन्मार्गम् (ii) न्यूनतम् (iii) वस्तव्यम् (iv) सत्संगतिः	10
		1X2=2
		2X2=4

	<p>(ग) 'प्राणी' इति पदस्य विशेषणपदं किम् ? (i) सामाजिकः (ii) अबला: (iii) दुर्जनः (iv) मनुष्याः</p>	
	<p>'ख' भागः रचनात्मकम् -कार्यम्</p>	15 अङ्काः
2.	<p>भवान् रितेशः। 'पर्यावरणस्य रक्षायै किं किं करणीयम्' इति वर्णयन् स्वमित्रं प्रति लिखिते पत्रे मञ्जूषातः पदानि चित्वा रिक्तस्थानानि पूरयित्वा पत्रं पुनः लिखत । जगन्नाथविहार (i)..... तिथिः 11. 2025 प्रिय मित्र नमन ! (ii)..... अद्य एव मम विद्यालये पर्यावरणदिवसः मानितः। तत्र (iii)..... रक्षायै किं करणीयम् इति अस्मिन् विषये चर्चा अभवत् । केचन उपायाः अतीव सरलाः सन्ति यान् वयं सर्वे (iv)..... समर्थाः । यथा गृहस्य प्राङ्गणे पुष्पपादपाः (v)..... अभिरक्षणीयाः च । तैलरहितानां वाहनानां प्रयोगः कर्तव्यः । अवकरः (vi)..... न प्रक्षेपणीयः । जलं दूषितं न करणीयम् अपितु प्रयत्नेन तस्य (vii)..... कर्तव्यम् । धनिप्रदूषणम् अपि न कर्तव्यम् । यदि वयं सर्वे मिलित्वा पर्यावरण रक्षायै प्रयत्नं करिष्यामः तर्हि इदं (viii)..... जीवनाय उपयुक्तं सुखकरं च भविष्यति । आशासे भवान् अपि पर्यावरणरक्षायै उद्यतः भविष्यति । गृहे (ix) मम प्रणामाः । अनुजाय नेहराशिः । भवदीय मित्रम् (x)..... (मञ्जूषा - जगत्, रितेशः, रोपणीयाः, सप्रेम नमः, कर्तुम्, भुवनेश्वरतः, मातृपितृचरणेषु, इतस्ततः, संरक्षणम्, पर्यावरणस्य)</p>	$1/2 \times 10 = 5$
3.अ.	<p>प्रदत्तं चित्रं दृष्ट्वा मञ्जूषायां प्रदत्तशब्दानां सहायतया पञ्चवाक्यानि संस्कृतेन लिखत-</p>  <p>चायविक्रेता, बालकः, जनः, तिष्ठति, वृक्षाः, समाचारपत्रम्, पठति, विक्रीणीते, चलापणः, सुपिष्टकानि, अवकरपात्रम् ।</p>	$1 \times 5 = 5$

आ.	<p style="text-align: center;">अथवा</p> <p>मञ्जूषायां प्रदत्त-शब्दानां साहाय्येन निम्नलिखितं विषयम् अधिकृत्य पञ्चभिः संस्कृतवाक्यैः एकम् अनुच्छेदं लिखत ।</p> <p style="text-align: center;">“जलस्य महत्त्वम्”</p> <p style="text-align: center;">मञ्जूषा</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;"> <p>जलम्, क्षेत्राणाम्, विना, जीवने, स्नानाय, भोजनस्य, अस्माभिः, महत्त्वपूर्णम्, कर्तुम्, क्षालनाय, दूषितेन, जायन्ते।</p> </div>	
4.अ.	<p>अधोलिखितां कथां मञ्जूषायाः शब्दसहायतया पूरयित्वा पुनः लिखत-</p> <p>एकदा एकस्मिन् i)..... कक्षन् वृद्धः वनमार्गात् अगच्छत्। यदा सः मार्गं श्रान्तः तदा एकस्य ii)..... अधः छायायां उपविष्टः अभवत्। तस्मिन् वृक्षे बहूनि फलानि बहवः iii)..... च अभवन्। सः यद्यपि वृक्षम् आरुह्य फलं स्वीकर्तुं iv)..... तथापि वानरेभ्यः भयात् आरोहणं न कृतवान् । अतः सः तानि फलानि स्वीकर्तुम् एकम् v) अचिन्तयत् । यत्र वृद्धः उपविष्टः vi) शिलाखण्डाः अभवन्। वृद्धः अचिन्तयत्-यदि अहं शिलाखण्डः वानरान् ताडयामि vii)..... वानराः अपि फलानि उपयुज्य मां ताडयिष्यन्ति इति । ततः viii)..... वानरान् अताडयत् । यथा वृद्धः वानरान् अताडयत् तथा एव कुद्धाः वानराः अपि वृक्षस्य ix) वृद्धम् अताडयन् । तानि फलानि स्वीकृत्य वृद्धः x) भूत्वा अगच्छत् ।</p> <p>मञ्जूषा-(समर्थः /ग्रामे/सन्तुष्टः/तर्हि/वृक्षस्य/वानराः/उपायम् / तत्र/ शिलाखण्डैः/ फलैः)</p>	1/2X10=5
आ.	<p style="text-align: center;">अथवा</p> <p>मञ्जूषायां प्रदत्तपदैः रिक्तस्थानानि पूरयित्वा अधोलिखित-संवादं पुनः लिखत -</p> <p>रमेशः- सुरेशः !भवान् कुत्र गच्छति?</p> <p>सुरेशः- (i)..... ।</p> <p>रमेशः- कः विशेषः अस्ति? किं परीक्षायाः परिणामः आगतः ।</p> <p>सुरेशः- अहं परीक्षायाम् उत्तीर्णः जातः ।</p> <p>रमेशः- -(ii)..... ।</p> <p>सुरेशः- गुरुणां मार्गदर्शनेन महान् लाभः अस्ति । सत्यम् । परिश्रमः च आवश्यकः ।</p> <p>रमेशः- -(iii)..... ?</p> <p>सुरेशः- गणितस्य अध्ययनं कठिनं भवति । परं अति रोचकं भवति</p> <p>रमेशः- -(iv)..... ?</p> <p>सुरेशः- संस्कृतस्य विषयः सरलः भवति ।</p> <p>रमेशः- -(v)..... ।</p> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p style="text-align: center;">मञ्जूषा-</p> <ul style="list-style-type: none"> ◆ अहं अपि परीक्षायाम् उत्तीर्णः एव अस्मि । ◆ कस्य विषयस्य अध्ययनं कठिनं भवति ? ◆ साधु उक्तम् । ◆ अहं विद्यालयं गच्छामि । ◆ कस्य विषयः सरलः अस्ति ? </div>	1X5=5

<p>5. अधोलिखित- वाक्येषु रेखाङ्कितपदेषु सन्धिं सन्धिविच्छेदं वा कुरुत- (i) राज्ञः स्वेषु गात्रेष्वपि निरासक्तिं विजाय ब्रह्माण्डं व्याकुलं सज्जातम् । (ii) हे राजर्षे ! यत् + इच्छसि तदुच्यताम् ! (iii) त्वं अद्य वध्योऽसि माया । (iv) द्वादशसमाः पूर्जन्यस्तद् राष्ट्रं न अभिवर्षाति</p> <p style="text-align: center;">अथवा</p> <p>अधोलिखित- वाक्येषु रेखाङ्कितपदेषु सन्धिं सन्धिविच्छेदं वा कुरुत- (i) सुपकाराणाम् मेषेण सह + एष कलहः नूनं विनाशकरणम् । (ii) भर्तः ! काकात + अन्यः कः भवितुम् अहंति । (iii) मनसः निग्रहम् अहं वायोः + इव सुदुष्करं मन्ये । (iv) भीमः द्रौपदी युधिष्ठिरश्च रणभूमौ प्रविशन्ति ।</p>	<p>1X4=4</p>
<p>6. अधोलिखित- वाक्येषु रेखाङ्कितपदानां समस्तपदं विग्रहं वा प्रदत्तविकल्पेभ्यः चित्वा लिखत –</p> <p>(i) परद्रव्ये अनासक्ता सा न्यवेदयत् । (क) परे द्रव्ये (ख) परं द्रव्ये (ग) परेषाम् द्रव्ये (घ) पर द्रव्ये</p> <p>(ii) वाचि अवक्रता भवेत् । (क) अ वक्रता (ख) न वक्रता (ग) अन वक्रता (घ) अव वक्रता</p> <p>(iii) ततः व्यासः च नारदः च प्रविशतः । (क) व्यासनारदः (ख) व्यासनारदयोः (ग) व्यासनारदम् (घ) व्यासनारदौ</p> <p>(iv) प्रच्छन्नभाग्यः सकरुणम् उचैः आक्रन्दत् । (क) करुणेन सह (ख) करुणया सह (ग) सकरुणेन सह (घ) सकरुणम् सह</p>	<p>1X4=4</p>
<p>7. अधोलिखित-वाक्येषु रेखाङ्कितपदानां प्रकृति-प्रत्ययौ संयोज्य विभज्य वा उचितम् उत्तरं विकल्पेभ्यः चित्वा लिखत - (केवलं प्रश्नचतुष्टयम्)</p> <p>(i) यथा अवक्रता चित्ते तथा वाचि भवेत् । (क) अवक्र + ता (ख) अवक्र + तल् (ग) अ + वक्रता (घ) अवक्रत + टाप्</p> <p>(ii) कथं एतौ नि + वृ + अनीयर । (क) निवारणीयः (ख) निवारणीया (ग) निवारणीयौ (घ) निवारणीयम्</p> <p>(iii) पञ्चशतानां बौद्धभिक्षूणां निवासयोग्या स्थली इयम्। (क) निवासयोग + टाप् (ख) निवासयोग + अनीय (ग) निवासयोग + डीप् (घ) निवासयोग्य + टाप्</p> <p>(iv) लोके विद्वांसः एव चक्षुष्मन्तः प्रकीर्तिताः। (क) चक्षुष् + मतुप् (ख) चक्षुष् + मन्तः (ग) चक्षुष् + मान् (घ) चक्षुः + ठक</p>	<p>1X4=4</p>

8.	<p>वाच्यानुसारं मञ्जूषाप्रदत्तैः उचितपदैः रिक्तस्थानानि पूरयित्वा अधोलिखितं संवादं पुनः लिखत -</p> <p>अर्चिता - वर्षे ! त्वं किम् पठसि ? वर्षा - अर्चिते ! (ii) गीता पठ्यते ।</p> <p>अर्चिता - त्वं कान् (ii)..... गायसि ? वर्षा - मया गीताश्लोकाः गीयन्ते । त्वया अधुना किं (iii)..... ?</p> <p>अर्चिता - अहं नीतिश्लोकान् गायामि । मञ्जूषा- (श्लोकान्, गीयते, मया) अथवा</p> <p>वाच्यानुसारम् उचितपदैः रिक्तस्थानानि पूरयित्वा वाक्यानि पुनः लिखत - $3 \times 1 = 3$</p> <p>(i) ब्रम्हास्त्रम् विमुच्यते । (द्रोणपुत्र) (ii) विचक्षणैः संभाष्यन्ते । (रिपु) (iii) अहं भवते चक्षुद्वयम् ।(प्र-यच्छ)</p>	1X3=3
9.	<p>कालबोधकशब्दैः अधोलिखित-दिनचर्या पूरयत -</p> <p>(i) विद्यालये (7.15)वादने प्रार्थनासभा भवति । (ii) संस्कृतकक्षा (. 8.45) वादने भवति । (iii) धन्वन्तरि: (10.00) वादने अल्पाहारं स्वीकरोति।</p>	1X3=3
10.	<p>मञ्जूषायां प्रदत्तैः उचितैः अव्ययपदैः अधिलिखितवाक्येषु रिक्तस्थानानि पूरयित -</p> <p>(i) विचित्रा दैवगतिः । (ii) मेषो यावत् महानसं प्रविशति सूपकारेण अर्धज्वलितकाष्ठेन ताडितः। (iii) राजहंसः हंसी विहरतः । (iv) सः तु एकाकी द्रोणपुत्राय अलम्। मञ्जूषा- [एव , तावत् , च , खलु]</p>	1X4=4
11.	<p>अधोलिखित-वाक्येषु रेखाङ्कित-अशुद्धपदाय उचितम् उत्तरं विकल्पेभ्यः चित्वा लिखत -</p> <p>(i) अद्य सोमवासरः आसीत् । (क) अस्मि (ख) आसन् (ग) अस्ति (घ) स्तः (ii) अश्वः प्राणत्राणाय इतस्ततः अधावन्। (क)अश्वा: (ख) अश्वाम् (ग) अश्वः (घ) अश्वेषु (iii) जानीमः वयं भवतः दिव्यं शक्तिम् । (क) दिव्याम् (ख) दिव्यान् (ग) दिव्यानि (घ) दिव्याः।</p>	1X3=3
‘घ’ भागः पठित -अवबोधनम्	30 अङ्काः	
12	<p>अधोलिखितं गद्यांशं पठित्वा प्रदत्तप्रश्नानाम् उत्तराणि संस्कृतेन लिखत -</p> <p>नाहं स्वर्गम् न मोक्षम् वा कामये किन्तु आर्तानां परित्राणाय एव मे निश्चयः। अस्य यात्रा वृथा मा अस्तु। इत्युक्त्वा स राजा वैद्योक्तविधिना नीलोत्पलम् इव एकं चक्षुः शनैः अक्षतम् उत्पात्य प्रीत्या याचकाय समर्पितवान्। सः अपि तत् नेत्रं यथास्थानम् अस्थापयत्। ततो महीपालः द्वितीय-नेत्रमपि शनैः निष्कास्य तस्मै अयच्छत्। अथ विस्मितः शक्रः अचिन्तयत्- अहो धृतिः ! अहो सत्त्वम् ! अहो सत्त्वहितैषिता ! नायं चिरं परिक्लेशम् अनुभवितुम् अहर्ति। अतः प्रयतिष्ठे चक्षुषोऽस्य पुनः प्रत्यारोपणाय</p>	5

	<p>इति । कतिपयैः दिनैः व्रणविरोपणे जाते एकदा राजा सरोवरस्य समीपे विहरति स्म । तदा तस्य पुरतः पुनः देवराजः शक्रः उपस्थितः भूत्वा तस्य त्यागवृत्तिं प्रशंसत् ।</p> <p>I. एकपदेन उत्तरत- (केवलं प्रश्नद्वयम्)</p> <ul style="list-style-type: none"> (i) राजा नेत्रद्वयं कस्मै समर्पितवान् ? (ii) नेत्रोत्पाटनविधिः केन उक्तः ? (iii) एकदा राजा कुत्र विहरति स्म ? <p>II. पूर्णवाक्येन उत्तरत- (केवलं प्रश्नद्वयम्)</p> <ul style="list-style-type: none"> (i) नूपः किम् निश्चयम् अकरोत् ? (ii) विस्मितः शक्रः किम् अचिन्तयत् ? (iii) शक्रः राजा: पुरतः उपस्थितः भूत्वा किम् अकरोत् ? <p>III. (क) निर्देशानुसारम् उत्तरत-</p> <ul style="list-style-type: none"> (i) राजा' इति शब्दस्य किं पर्यायवाचिपदम् अत्र प्रयुक्तम् ? (ii) 'अस्य याज्ञा वृथा मा अस्तु' अत्र 'अस्य' इति पदं कस्मै प्रयुक्तम् ? <p style="text-align: center;">अथवा</p> <p>(ख) निर्देशानुसारम् उत्तरत-</p> <ul style="list-style-type: none"> (i) अत्र गद्यांशे "अभितः" इति अर्थे किं पदं प्रयुक्तम् ? (ii) 'कामये' इति क्रियापदस्य कर्तृपदं किम् ? 	1/2X2=1 1X2= 2 1X2= 2
13	<p>अधोलिखितपदे पठित्वा प्रदत्तप्रश्नानाम् उत्तराणि संस्कृतेन लिखत -</p> <p>त्यक्त्वा धर्मप्रदां वाचं परुषां योऽभ्युदीरयेत्। परित्यज्य फलं पक्षं भुद्यक्तेऽपक्षं विमूढधीः ॥</p> <p>I. एकपदेन उत्तरत । (केवलं प्रश्नद्वयम्)</p> <ul style="list-style-type: none"> (i) विमूढधीः कीदृशीं वाचं त्यजति? (ii) कः परुषां वाचं वदति? (iii) कः अपक्षम् फलं खादति? <p>II. पूर्णवाक्येन उत्तरत । (केवलं प्रश्नद्वयम्)</p> <ul style="list-style-type: none"> (i) कः विमूढधीः ? (ii) विमूढधीः कीदृशम् फलं भुद्यक्ते ? (iii) कः परुषां वाचं त्यजति ? <p>III. (क) निर्देशानुसारम् उत्तरत-</p> <ul style="list-style-type: none"> (i) 'कठोराम्' अस्य पर्यायः श्लोकात् एव चित्वा लिखत ? (ii) "त्यक्त्वा" इति अर्थे अत्र किं पदं प्रयुक्तम् ? <p style="text-align: center;">अथवा</p> <p>(ख) निर्देशानुसारम् उत्तरत-</p> <ul style="list-style-type: none"> (i) 'अपक्षं' इति कस्य पदस्य विशेषणम् ? (ii) 'पक्षम्' इति पदस्य विलोमपदं किम्? 	5 1/2X2=1 1X2= 2 1X2= 2
14	<p>अधोलिखितं नाट्यांशं पठित्वा प्रदत्तप्रश्नानाम् उत्तराणि संस्कृतेन लिखत -</p> <p>सुधाकरः :- अरुणाचलप्रदेशस्य राजधानी का?</p> <p>पर्यटनाधिकारी :- 'ईटानगरम्' अस्य प्रदेशस्य राजधानी ।</p> <p>श्यामा :- महोदय ! अत्रत्यजनजातीनां कानि प्रमुखानि आजीविका- साधनानि?</p> <p>पर्यटनाधिकारी :- कृषिः शिल्पकला वनसप्तद् चैव एतेषां प्रमुखानि आजीविकासाधनानि ।</p> <p>रविः :- मान्यवर ! अस्य प्रदेशस्य प्रमुखाः उत्सवाः के?</p> <p>पर्यटनाधिकारी :- साधु पृष्ठम्। अत्र अनेके प्रमुखोत्सवाः। 'वाङ्मी' जनजातीनां प्रमुखं पर्व 'ओरिया' इति अस्ति। एतत् तु 'फरवरी' इति मासे मान्यते। अस्मिन् अवसरे कृषिभूमिपूजनं सेतुनिर्माणं च</p>	5

	<p>सामाजिकं कार्यं क्रियते। 'मोपीन' इति अपि कृषिपर्व अस्ति। देवानामपि देवः 'मोपीन' इति कथ्यते। होली सहशम् एव पर्व इदम्। जनाः परस्परं मुखे कपोले च शालिचूर्ण लिम्पन्ति। इदम् 'अप्रैल' इति मासे मान्यते। 'ओणम्' पर्वसमं 'साडकेन' एकम् अन्यत् पर्व अस्ति। लामासम्प्रदायस्य 'लोसर' इति प्रमुखं पर्व अपि 'फरवरी' इति मासे सम्पद्यते।</p> <p>हिमांशुः :- अस्माभिः 'मिथुन' इति विषये अपि किञ्चिद् श्रुतम्। किं तत्?</p> <p>I. एकपदेन उत्तरत- (केवलं प्रश्नद्वयम्)</p> <ul style="list-style-type: none"> (i) 'लोसर' कस्य प्रमुखपर्व ? (ii) कृषि भूमिपूजनम् कस्मिन् पर्वणि क्रियते ? (iii) 'ईटानगरम्' कस्य प्रदेशस्य राजधानी ? <p>II. पूर्णवाक्येन उत्तरत- (केवलं प्रश्नद्वयम्)</p> <ul style="list-style-type: none"> (i) जनजातीनां प्रमुखानि आजीविका साधनानि कानि ? (ii) मोपीन कः ? (iii) केषां प्रमुखं पर्व 'ओरिया' ? <p>III.(क) निर्देशानुसारम् उत्तरत-</p> <ul style="list-style-type: none"> (i) 'प्रमुखं पर्व' इत्यनयोः पदयोः विशेषणपदं किम् ? (ii) 'लिम्पन्ति' इति क्रियायाः कर्तृपदं किम् ? <p style="text-align: center;">अथवा</p> <p>(ख) निर्देशानुसारम् उत्तरत-</p> <ul style="list-style-type: none"> (i) 'सामाजिकं कार्यं' इत्यनयोः पदयोः विशेषणपदं किम् ? (ii) '<u>वदने</u>' इति पदस्य किं पर्यायपदं अत्र प्रयुक्तम् ? 	$1 \times 2 = 2$
		$1 \times 2 = 2$
		$1 \times 2 = 2$
15	<p>रेखांकित-पदानि आधृत्य प्रश्ननिर्माणं कुरुत - (केवलं प्रश्नपञ्चकम्)</p> <ul style="list-style-type: none"> (i) <u>अनुद्गेगकरं</u> वाक्यं वाङ्मयं तपः उच्यते। (ii) काकः प्रभाते का का ध्वनिना <u>सुप्तान्</u> प्रबोधयति । (iii) <u>प्राज्ञः</u> कलहायुक्तं गृहं दूरतः परिवर्जयेत् । (iv) <u>वनौषधीनां</u> तु अयं स्रोतः एव अस्ति । (v) धैर्यं <u>आपदां</u> तरणिः । 	$1 \times 5 = 5$
16	<p>मञ्जूषातः समुचितपदानि चित्वा अधोलिखित-श्लोकस्य अन्वयं पूरयित्वा पुनः लिखत -</p> <p>अथ केन प्रयुक्तोऽयं पापं चरति पूरुषः । अनिच्छन्नपि वार्ष्ण्यः बलादिव नियोजितः ॥</p> <p>अन्वयः - वार्ष्ण्यः ! अथ (i) .....पूरुषः केन (ii)..... अनिच्छन् अपि (iii)..... नियोजितः इव (iv)..... चरति । पापम् अयम् बलात् प्रयुक्तः</p> <p style="text-align: center;">अथवा</p> <p>य इच्छत्यात्मनः श्रेयः प्रभूतानि सुखानि च । न कुर्यादहितं कर्म स परेभ्यः कदापि च ॥</p> <p>भावार्थः - यदि कश्चित् (i)..... स्वस्य श्रेयः (ii)..... सुखानि च इच्छति तर्हि सः कदापि(iii)..... अहितं कर्म न (iv)..... ।</p> <p style="text-align: center;">अन्येभ्यः, नरः, कुर्यात्, अनेकानि</p>	$1/2 \times 4 = 2$

17.	<p>अधोलिखित- वाक्येषु रेखाङ्कित-पदानां प्रसङ्गानुकूलं उचितार्थं चित्वा लिखत -</p> <p>(i) स सव्येन <u>पाणिना</u> चक्रं गृहीतवान् । (क) वामेन (ख) हस्तेन (ग) जलेन (घ) पदेन</p> <p>(ii) काकस्य <u>गात्रम्</u> यदि काञ्चनस्य । (क) गोत्रम् (ख) कुटुंबम् (ग) शरीरं (घ) नेत्रम्</p> <p>(iii) <u>सपदि</u> उपायः क्रियताम् । (क) एकपदेन (ख) संसारे (ग) पादेन सह (घ) इटिति</p> <p>(iv) क्रोधात् भवति <u>सम्मोहः</u> । (क) किंकर्तव्यविमूढता (ख) क्रोधः (ग) निर्धनता (घ) व्याकुलता</p>	1X4= 4
18.	<p>मञ्जूषाप्रदत्तपदानां सहायतया रिक्तस्थानानि पूरयित्वा अधोलिखितकथाम् उत्तरपुस्तिकायां लिखत -</p> <p>चन्द्रनामकस्य राजपुत्राः राजगृहे(i)..... पालयन्ति स्म। तस्मिन् राजगृहे बालवाहनयोग्यम् एकं मेष्यूथम् अपि आसीत्। तेषु एकः(ii) .....मेषः अहर्निशं महानसम् प्रविश्य यत् पश्यति स्म तत् खादति स्म। अतः तेन सह सूपकाराणां (iii).....भवति स्म। मेषस्य सूपकाराणां च कलहं दृष्ट्वा वानराणां बुद्धिमान् यूथपतिः तान् अवदत् एतेषां कलहो वानराणां (iv).....भविष्यति । अतः वयम् राजभवनं त्यक्त्वा वनं(iv)। किन्तु (vi).....वानराः तस्य वचनम् अश्रद्धेये मत्वा वनं न अगच्छन् । एकदा सः उद्दण्डः मेषः (vii).....ज्वलितकाष्ठेन ताडितः। ऊर्णप्रचुरः मेषः जाज्वल्यमानशरीरः निकटस्थाम् (viii).....प्राविशत् ।</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>मदोद्धताः, कलहः, गच्छामः, वानरान्, सूपकारैः, अश्वशालां, विनाशकारणं, उद्दण्डः</p> </div>	1/2X8=4

**KENDRIYA VIDYALAYA SANGATHAN, BHUBANESWAR REGION
PRE BOARD-II EXAMINATION (2025-26)
CLASS : X
SUBJECT : SCIENCE (086)**

Maximum Marks -80

Maximum time allowed-3 Hours

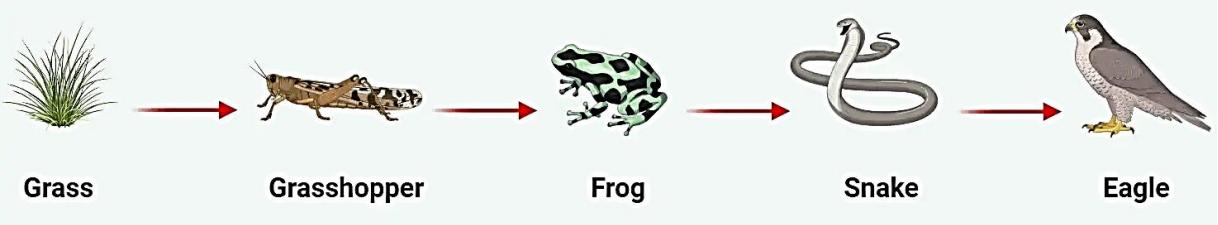
General Instructions :

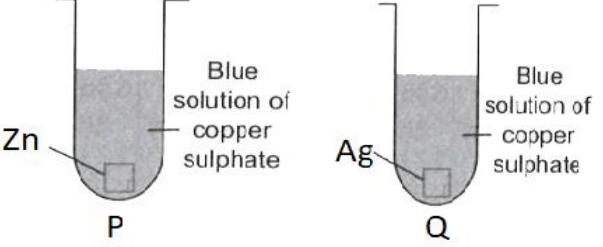
1. This question paper consists of 39 questions in 3 sections. Section A is Biology, Section B is Chemistry and Section C is Physics.
2. All questions are compulsory. However, an internal choice is provided in some questions. A student is expected to attempt only one of these questions.

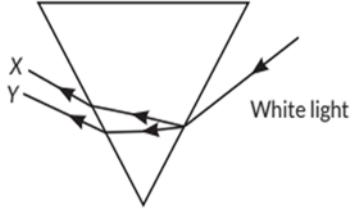
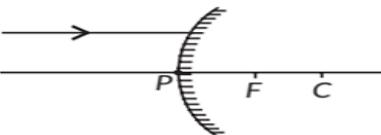
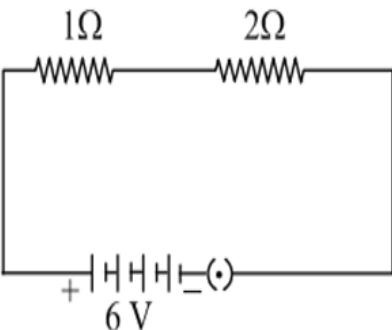
The following two questions consist of two statements – **Assertion (A)** and **Reason (R)**. Answer these questions by selecting the appropriate option given below:

- (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.

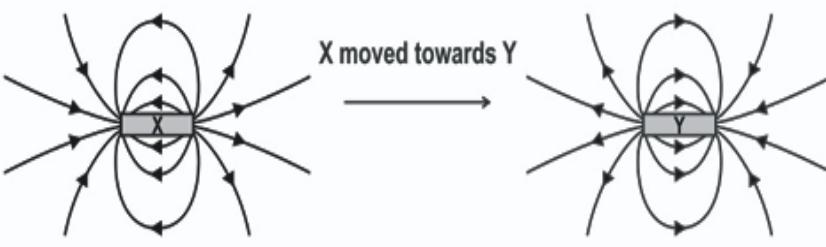
8	Assertion (A): Traits like seed shape and seed colour are inherited independently in pea plants. Reason (R) : Mendel's dihybrid cross showed that alleles of different traits segregate independently during gamete formation independently	1
9	Assertion (A): Accumulation of harmful chemicals is maximum in the organisms at the highest trophic level of a food chain. Reason (R): Harmful chemicals are sprayed on the crops to protect them from diseases and pests.	1
10	Name the substances other than water, that are reabsorbed during urine formation. What are the two parameters that decide the amount of water that is reabsorbed in the kidney?	2
11	Attempt either option A or B A. How do guard cells regulate the opening and closing of stomatal pore? OR B. The rate of breathing in aquatic organisms is much faster than that seen in terrestrial organisms. Give reason.	2
12	Study the food chain given below and answer the questions that follow:  Grass → Grasshopper → Frog → Snake → Eagle	2
	(i). If the amount of energy available at the third trophic level is 100 joules, then how much energy will be available at the producer level? Justify your answer. (ii). Is it possible to have 2 more trophic levels in this food chain just after the fourth trophic level? Justify your answer.	
13	(i)Label the parts (a), (b), (c) and (d) and show the direction of flow of electrical signals. (ii) How is mode of action in beating of the heart different from reflex action?	2+1
14	(i)"It is a matter of chance whether a couple will have a male or a female child." Justify with the help of a flow chart. (ii)Give two examples of the organisms in which the sex is not genetically determined.	2+1
15	Read the given passage and answer the questions – Human digestive system is a tube running from mouth to anus. Its main function is to breakdown complex molecules present in the food which cannot be absorbed as such ,into smaller molecules. These molecules are absorbed across the walls of the tube and the absorbed food reaches each and every cell of the body where it is utilised for obtaining energy. A. Name the glands present in the buccal cavity and mention the component of food on which it acts. B. Two organs are having a sphincter muscle at their exit. Name them. Attempt either subpart C or D	1+1+2

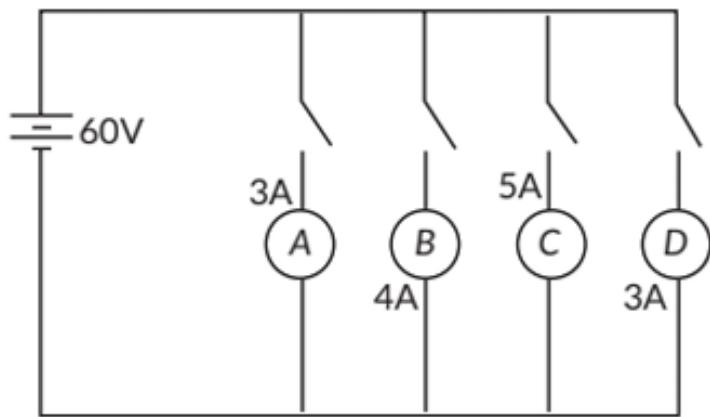
22	<p>Given figure shows a student adds an equal amount of CuSO_4 (aq) in two test tubes. He added zinc in test tube P and silver in test tube Q. The student observes that the colour of solution in test tube P changes while no change is observed in test tube Q. Which option is correct for reactivity?</p> <p>(a) $\text{Ag} < \text{Zn} < \text{Cu}$ (b) $\text{Zn} < \text{Cu} < \text{Ag}$ (c) $\text{Ag} < \text{Cu} < \text{Zn}$ (d) $\text{Cu} < \text{Ag} < \text{Zn}$</p>		1
23	<p>Reema took 5 mL of lead nitrate solution in a beaker and added approximately 4 mL of potassium iodide solution to it. What would she observe?</p> <p>(a) The solution turned red. (b) Yellow precipitate was formed. (c) White precipitate was formed. (d) The reaction mixture became hot.</p>		1
<p>The following question consist of two statements – Assertion (A) and Reason (R). Answer these questions by selecting the appropriate option given below:</p> <p>(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>			
24	<p>Assertion (A): Carbon has a strong tendency to either lose or gain electrons to attain noble gas configuration. Reason (R): Carbon has four electrons in its outermost shell and has the tendency to share electrons with carbon or other elements.</p>		1
25	<p>(a) Give two general properties of the compound formed by combination of magnesium and oxygen. (b) Show the formation of this compound by the transfer of electrons.</p>		2
26	<p>Attempt either option A or B</p> <p>A. A teacher asks her students to identify a metal, M. She gives them the following clues to help them.</p> <p>(P) Its oxide reacts with both HCl and NaOH. (Q) It does not react with hot or cold water but reacts with steam. (R) It can be extracted by electrolytic reduction of its oxide.</p> <p>(a) Identify the metal. (b) Write the balanced chemical equations for the reaction of metal with HCl and NaOH. (c) What would happen if the metal powder is reacted with iron(III) oxide.</p> <p style="text-align: center;">OR</p> <p>B. It is observed that calcium on reaction with water floats on its surface. Explain why it happens. Also write a balanced chemical equation for the reaction that occurs. What happens when aqueous solution of the product of this reaction reacts with carbon dioxide gas? Write a balanced chemical equation.</p>		3
27	<p>Tina finds a paper covered with a white substance in a chemistry lab. She keeps the paper near the window of the lab and comes back to pick it up after five hours to take it home. She noticed that the white substance had turned grey.</p> <p>(a) What could be the most likely substance on the paper that Tina found? Write name and formula. (b) The substance changed from white to grey. Write the chemical equation for this reaction. (c) State one application of this property of the substance seen in daily life.</p>		3
28	<p>(a) You are provided with concentrated sulphuric acid. Describe the process of preparing a dilute solution of sulphuric acid. (b) What is the effect of dilution on $(\text{H}_3\text{O}^+/\text{OH}^-)$ ratio? (c) If the H_3O^+ ion concentration is increased in a solution, will the pH increase or decrease? What are the probable colours of pH paper if pH ranges from 0.5 to 2.0?</p>		4

29	<p>Attempt either A or B</p> <p>A .An organic compound 'X' is liquid at room temperature. It is also very good solvent and has the molecular formula C_2H_6O. Upon oxidation 'X' gives 'Y'. 'Y' releases a gas 'W' with brisk effervescence on reacting with $NaHCO_3$. X reacts with Y in the presence of Conc. H_2SO_4 to give another compound 'Z' which has a pleasant smell.</p> <p>(a) Give the chemical name and chemical formula of 'Y'. (b) How will you test for the gas 'W'? (c) Depict the formation 'Y' and 'Z' using chemical equations. (d) Name the reaction of formation of 'Z'. (e) Give any one use of 'Z'.</p> <p>OR</p> <p>B.(a)Define a homologous series of carbon compounds. (b)Why is the melting and boiling points of C_4H_8 higher than that of C_3H_6 or C_2H_4? (c) Why we do NOT see any gradation in chemical properties of a homologous series compounds? (d) Write the name and structures of (i) aldehyde and (ii) ketone with molecular form C_3H_6O.</p>	5
SECTION C		
30	<p>A lens has a power of +4.0 D. It is</p> <p>(a) a convex lens of focal length 4 m (b) a concave lens of focal length 4 m (c) a convex lens of focal length 0.25 m (d) a concave lens of focal length 0.25 m</p>	1
31	<p>In the diagram given below, X and Y are the end colours of the spectrum of white light. The colour of 'Y' represents the</p> <p>(a) Colour of sky as seen from earth during the day (b) Colour of the sky as seen from the moon (c) Colour used to paint the danger signals (d) Colour of sun at the time of noon.</p>	
<p>The following question consist of two statements – Assertion (A) and Reason (R). Answer these questions by selecting the appropriate option given below:</p> <p>(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>		
32	<p>Assertion: Concave mirrors are used as make-up mirrors. Reason : When the face is held within the focus of a concave mirror, then a diminished image of the face is seen in the concave mirror</p>	1
33	<p>A ray of light is incident on a convex mirror as shown. Redraw the diagram and complete the path of this ray after reflection from the mirror. Mark angle of incidence and angle of reflection on it.</p>	
34	<p>Attempt either A or B</p> <p>A.In the given circuit calculate the power consumed in watts in the resistor of 2Ω :</p> 	2

OR

B. Show how you would connect three resistors each of resistance $6\ \Omega$, so that the combination has a resistance of $9\ \Omega$. Also justify your answer.

35	<p>A student uses spectacles of focal length - 2.5 m.</p> <p>(a) Name the defect of vision he is suffering from. (b) Which lens is used for the correction of this defect? (c) List two main causes of developing this defect. (d) Compute the power of this lens</p>	3
36	<p>(a) List the factors on which the resistance of a uniform cylindrical conductor of a given material depends. (b) The resistance of a wire of 0.01cm radius is 10Ω. If the resistivity of the wire is $50 \times 10^{-8}\ \Omega\text{m}$ find the length of this wire.</p>	3
37	<p>(a) The given figure shows the two magnets X and Y kept near each other. Their poles are not marked but the magnetic field lines are shown.</p> <div style="text-align: center;">  </div> <p>If magnet X is moved towards magnet Y as indicated by the arrow, will the two magnets attract or repel each other. Justify your answer by describing how you interpret the field lines. (b) Two magnetic field lines do not intersect each other. Why?</p>	3
38	<p>Ravi wanted to fix the rear-view mirror of his scooter. He knows that rear-view mirror is an essential safety device in the vehicle and allows him to see objects at the backside of his vehicle.</p> <div style="text-align: center;">  </div> <p>He bought two mirrors M_1 and M_2, out of which M_1 is curved inwards and M_2 is curved outwards.</p> <p>A. Based on the given situation, which mirror should Ravi need to fix as his rear-view mirror and why? B. Ravi did some preliminary experiment with mirror M_1 and found that magnification of the real image of an object placed at 10 cm in front of it is 3, at what distance is the image located? <u>Attempt either subpart C or D</u> C. An object is placed at the centre of curvature of M_1. Find the distance between its image and pole. D. An object is placed 60 cm in front of M_2. The image formed by the mirror is located 30 cm behind the mirror. What is the object's magnification?</p>	4
39	<p><u>Attempt either option A or B</u></p> <p>A. In the given circuit, A, B, C and D are four lamps connected with a battery of 60 V.</p>	5



Analyse the circuit to answer the following questions.

- What kind of combination are the lamps arranged in (series or parallel)?
- Explain with reference to your above answer, what are the advantages (any two) of this combination of lamps.
- Explain with proper calculations which lamp glows the brightest.
- Find out the total resistance of the circuit.

OR

B.(i) An air conditioner consumes energy at a rate of 2200W when it operates at 16°C and 1540 W when it operates at 25°C . If the source voltage is 220V, Calculate the current and resistance in each case.

(ii) An electric water heater is designed to operate on a mains voltage of 22V. It consumes 4.4 units of electrical energy in 10 hours. Calculate:

- the power rating of the water heater
- the resistance of the water heater

KENDRIYA VIDYALAYA SANGATHAN
BHUBANESWAR REGION
SOCIAL SCIENCE-Code- 087
PRE-BOARD QUESTION PAPER CLASS: X (2025-26)

Time Allowed:3 Hour

Maximum Marks:80

General Instructions:

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 A-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.

SECTION-A
HISTORY (20 MARKS)

1.	The term <i>conservatism</i> refers to — A. Preference for tradition and stability B. Radical change and revolution C. Democratic reform D. Socialist ideology	1
2.	The spread of diseases like smallpox to the Americas is an example of — A. Globalisation of economies B. Biological exchange under colonialism	1

	C. Cultural assimilation D. Industrialisation	
3.	Assertion (A): Gandhiji's idea of Satyagraha emphasised the power of truth and the need to search for it. Reason (R): Satyagraha believed that physical force was the best way to fight injustice. 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.	1
4.	The first newspaper in India was — A. The Hindu B. Bengal Gazette C. Amrit Bazar Patrika D. Bombay Samachar	1
5.	What was the <i>Silk Route</i> and what was its significance?	2
6.	Explain the circumstances leading to the launching of the Non-Cooperation Movement in 1920.	3
7.	Read the passage carefully and answer the questions- By the end of the nineteenth century, a large number of newspapers in Indian languages had emerged. They carried news of the national movement, discussed social issues, and criticised colonial policies. The vernacular press became a strong tool in spreading nationalist consciousness among the people. Despite strict censorship by the British government, newspapers like <i>Kesari</i> , <i>Sudharak</i> , <i>Amrita Bazar Patrika</i> , and <i>The Hindu</i> played a crucial role in uniting Indians. The print medium also provided a platform for reformers to express their views against social evils such as untouchability and child marriage. Women, too, began to write articles and novels demanding education and social reforms. Pamphlets and leaflets were used to mobilise people and spread the message of <i>Swadeshi</i> and <i>Swaraj</i> . The circulation of printed material created a sense of shared identity and belonging among Indians, giving a new strength to the freedom struggle. Questions 30.1. How did the vernacular press help in spreading nationalism in India? 30.2. Why did the British government try to censor Indian newspapers? 30.3. Mention two ways in which print culture encouraged social reforms in India.	(1+1+2=4)
8.	“Culture played an important role in the growth of nationalism in Europe.” Examine this statement with reference to the contribution of poets, artists, and musicians.	5
9.	MAP SKILL-BASED QUESTION 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. A. The place associated with satyagraha movement of cotton mill workers. B. The place where Indian National Congress session was held in 1927	2

Note: The following question is for Visually Impaired Candidates only in lieu of Question 9

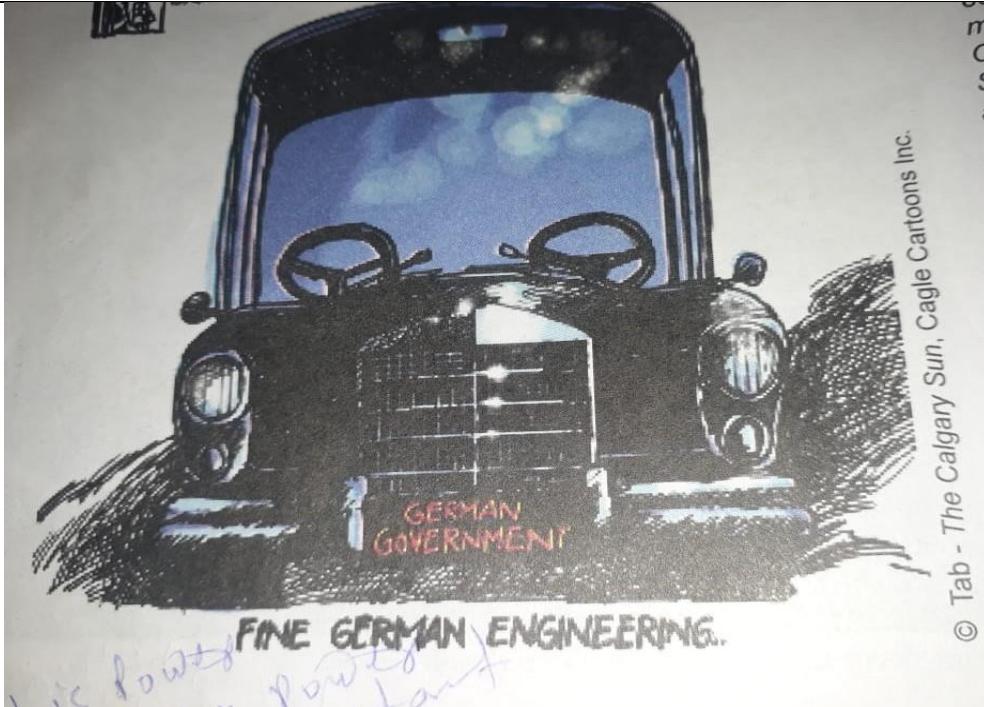
1. The place where Jallianwala Bagh massacre took place
2. A place where Gandhiji performed his first Satyagraha in India.

SECTION -B
GEOGRAPHY (20 MARKS)

10.	Resource planning is a technique or skill of — A. Proper use of resources B. Exploiting resources fully C. Using resources without any concern D. Conserving only forests	1
11.	Community-owned resources include — A. Private house B. Village ponds C. Industrial lands D. Railways	1
12.	The variety of flora and fauna in a region is called — A. Ecosystem B. Habitat C. Biodiversity D. Biome	1
13.	<i>Project Tiger</i> was launched in — A. 1972 B. 1973 C. 1980 D. 1985	1
14.	The <i>Hirakud Dam</i> is built on which river? A. Mahanadi B. Godavari C. Krishna D. Tapi	1
15.	Which of the following is a <i>Kharif crop</i> ? A. Wheat B. Rice C. Gram D. Mustard	1
16.	What are the main problems faced by Indian farmers today?	2
17.	<p>Read the passage carefully and answer the questions-</p> <p>The textile industry occupies a unique position in the Indian economy because it contributes significantly to industrial production, employment generation, and foreign exchange earnings. It is the only industry in India that is self-reliant and complete in the value chain—from raw material to finished products. Cotton textiles are the most important segment of this industry. The first modern cotton mill was established in Mumbai in 1854. Today, major centres of cotton textiles are located in Maharashtra, Gujarat, Tamil Nadu, and Uttar Pradesh. However, the industry faces challenges such as obsolete machinery, power shortages, and competition from synthetic fibres and foreign goods. The government supports this sector through textile parks, export incentives, and technology upgradation schemes.</p> <p>Questions</p> <p>17.1. Why is the textile industry important for the Indian economy? 17.2. Name two states known for cotton textile production. 17.3. Mention any two problems faced by the textile industry.</p>	(1+1+2=4)
18.	Describe the distribution of iron ore in India. Name major producing states and	5

	one important mine from each.	
19.	<p style="text-align: center;">MAP SKILL-BASED QUESTION</p> <p>On the same outline map of India locate and label the following:</p> <ol style="list-style-type: none"> 1. A Major Dam on the Mahanadi river. 2. A port in Goa. 3. The International Airport of West Bengal. <p>Note: The following question is for Visually Impaired Candidates only in lieu of Question 19.</p> <p>Mention the name of the places with the help of following inputs-</p> <ol style="list-style-type: none"> 1. A Major Dam on the Mahanadi river. 2. A port in Goa. 3. The International Airport of West Bengal. 	3

SECTION C (POLITICAL SCIENCE- 20 MARKS)
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20.	 <p>Which of the following option best signifies this cartoon?</p> <ol style="list-style-type: none"> (a) Problems of two party system (b) A car with two steering (c) Problems of a coalition government (d) None of the above 	1
21.	Subjects like education, forests, and marriage laws come under — A. Union List B. State List C. Concurrent List D. Residuary List	1
22.	Which one of the following is not a feature of communal politics? A. One religion considered superior to others B. Faith used for political mobilisation	1

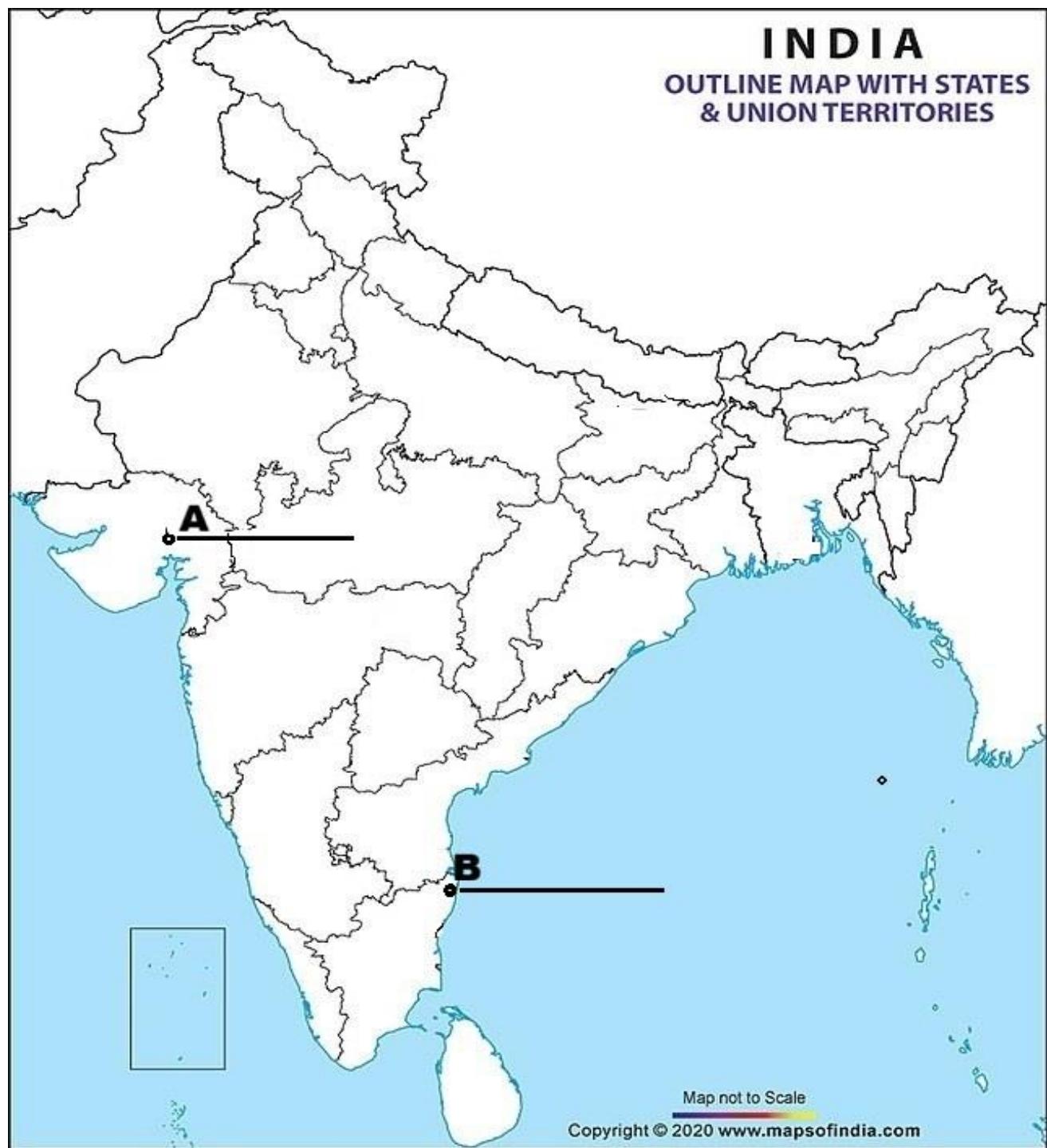
	C. Equal treatment to all religions D. Demand for political dominance by one community	
23.	Opposition parties play an important role because they — A. Disturb the ruling party B. Criticise and check the ruling party's policies C. Help only in passing laws D. Control the army	1
24.	What is the importance of local self-government in a democracy?	2
25.	Mention any two positive developments that have taken place in the caste system in modern India	2
26.	“Democracy enhances the dignity and freedom of the individual.” Explain the statement with three points.	3
27.	Read the passage carefully and answer the questions- Power sharing is a fundamental principle of democracy. It means dividing power among different organs and levels of government to prevent concentration of power in one hand. In India, power is shared among the legislature, executive, and judiciary — a system known as separation of powers. It is also divided vertically among central, state, and local governments under federalism. Additionally, power is shared among different social and political groups to ensure representation of minorities, women, and weaker sections. For example, India has provisions for reservation of seats in legislatures and local bodies. Power sharing is not just a moral requirement but also a practical one, as it reduces social tensions and promotes stability in a country. Questions- 27.1. What is meant by power sharing? 27.2. Why is power sharing important in a democracy? 27.3. Give one example of power sharing among social groups in India.	(1+2+1=4)
28.	How do political parties help in the formation and working of the government? OR “Political parties are both a cause and a solution to many problems of Indian democracy.” Critically evaluate this statement.	5

SECTION D
ECONOMICS (20 MARKS)

29.	Which of the following is not an indicator of development? A. Literacy rate B. Infant mortality rate C. Income inequality D. Brand popularity	1
30.	Assertion (A): The organised sector offers better job security and regular income to workers.	1

	<p>Reason (R): It is registered by the government and follows labour laws.</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>	
31.	<p>In a rural area, five family members work on a small piece of land but their output remains the same even if two members stop working.</p> <p>This situation is an example of —</p> <p>A. Disguised unemployment B. Seasonal unemployment C. Structural unemployment D. <u>Underemployment in industries</u></p>	1
32.	<p>Which institution authorises the issue of currency notes in India?</p> <p>A. Ministry of Finance B. State Bank of India C. Reserve Bank of India D. NITI Aayog</p>	1
33.	<p>What was the main problem with the barter system?</p> <p>A. Lack of goods B. Double coincidence of wants C. Surplus production D. Money shortage</p>	1
34.	<p>Indian companies like Tata Motors and Infosys have benefitted from globalisation because —</p> <p>A. They stopped exports B. They received new investment and expanded abroad C. They depended only on local markets D. They were nationalized</p>	1
35.	<p>“Sustainable development is the only way for future progress.” Justify this statement with suitable arguments.</p>	3
36.	<p>What are the main objectives of the Self-Help Groups (SHGs)?</p>	3
37.	<p>Explain the factors behind globalization.</p>	3
38.	<p>What is the difference between organised and unorganised sectors? Explain with examples and suggest how conditions of workers in the unorganised sector can be improved.</p> <p style="text-align: center;">OR</p> <p>A garment factory worker gets paid ₹300 per day with fixed hours and medical benefits, while a tailor working from home earns ₹150 per day without any benefits. Compare their employment situations and discuss how the government can protect the second worker.</p>	5

Map for Question 9 and 19



Map for Q. no. 9 (Section A) & Q. no. 19 (Section B)