

सामान्य निर्देश :-

1. इस प्रश्न-पत्र में चार खंड हैं - 'क', 'ख', 'ग' और 'घ' ।
2. चारों खंडों के प्रश्नों के उत्तर देना अनिवार्य है।
3. यथासंभव प्रत्येक खंड के प्रश्नों के उत्तर क्रमशः दीजिए।

खंड- 'क'

1. निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए-

संस्कृत में एक कहावत है कि दुर्जन दूसरों के राई के समान मामूली दोषों को पहाड़ के समान बड़ा बनाकर देखता है और अपने पहाड़ के समान बड़े पापों को देखते हुए भी नहीं देखता। सज्जन या महात्मा ठीक इससे विपरीत होते हैं। उनका ध्यान दूसरों की बजाय केवल अपने दोषों पर जाता है। अधिकांश व्यक्तियों में कोई न कोई बुराई अवश्य होती है। कोई भी बुराई न होने पर व्यक्ति देवता की कोटि में आ जाता है। मनुष्य को अपनी बुराइयों को दूर करने का प्रयत्न करना चाहिए, न कि दूसरों की कमियों को लेकर छीटाकशी करने या टीका टिप्पणी करने का। अपने मन की परख मन को पवित्र करने का सबसे उत्तम साधन है। आत्मनिरीक्षण आत्मा की उन्नति का सर्वश्रेष्ठ मार्ग है। महात्मा कबीर ने कहा है कि जब मैंने मन की पड़ताल की तो मुझे अपने जैसा बुरा कोई न मिला। महात्मा गाँधी ने कई बार स्पष्ट रूप से कहा था कि मैंने जीवन में हिमालय जैसी बड़ी भूल की है। अपनी भूलों को ध्यान देना या उन्हें स्वीकार करना आत्मबल का चिह्न है। जो लोग दूसरों के सामने अपनी भूल नहीं मानते और न ही अपने को दोषी स्वीकार करते हैं, वे सबसे बड़े कायर हैं। जिनका अंतःकरण शीशे के समान उजला है, उसे झट अपनी भूल महसूस हो जाती है। मन तो दर्पण है। मन में पाप है तो जग में पाप दिखाई देता है। पवित्र आचरण वाले अपने मन को देखते हैं तो उन्हें लगता है कि अभी इसमें कोई कमी रह गई है। इसलिए वे अपने को बुरा कहते हैं। यही उनकी नम्रता व साधना है।

- (i) दुर्जन व सज्जन व्यक्ति अपनी किस चारित्रिक विशेषता के कारण भिन्न कहलाते हैं? (2)
- (ii) उन्नति का सर्वश्रेष्ठ मार्ग किसे व क्यों माना गया है? (2)
- (iii) सबसे बड़ा कायर कौन है? (2)
- (iv) सज्जन व्यक्तियों की नम्रता का परिचय किस प्रकार मिलता है? (2)
- (v) उपरोक्त गद्यांश का उपयुक्त शीर्षक लिखिए। (1)

2. निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए-

है शौक यही, अरमान यही,
हम कुछ करके दिखलाएँगे।
मरने वाली दुनिया में हम,
अमरों में नाम लिखाएँगे।

जो लोग गरीब भिखारी हैं,
जिनपर न किसी की छाया है।
हम उनको गले लगाएँगे,
हम उनको सुखी बनाएँगे।

जो लोग अँधेरे घर में हैं,
अपनी ही नहीं नज़र में हैं।
हम उनके घर के कोने में,
उद्दयम का दीप जलाएँगे।

जो लोग हारकर बैठे हैं,
उम्मीद मारकर बैठे हैं।
हम उनके बुझे दिमागों में,
फिर से उत्साह जगाएँगे।

रोको मत, आगे बढ़ने दो,
आज़ादी के दीवाने हैं।
हम मातृभूमि की सेवा में,
अपना सर्वस्व लगाएँगे।

हम उन वीरों के बच्चे हैं,
जो धुन के पक्के-सच्चे थे।
हम उनका मान बढ़ाएँगे,
हम जग में नाम कमाएँगे।

- (i) कवि किन लोगों में उत्साह जगाना चाहते हैं? (2)
- (ii) कवि किन लोगों के जीवन को सुखी बनाना चाहते हैं? (2)
- (iii) 'हम कुछ करके दिखलाएँगे' - पंक्ति में 'हम' का प्रयोग किसके लिए किया गया है? (2)

खंड- 'ख'

3. (क) शब्द और पद में उदाहरण सहित अंतर स्पष्ट कीजिए। (2)
 (ख) निम्नलिखित वाक्यों का निर्देशानुसार रचना के आधार पर वाक्य रूपांतरण कीजिए- (1×3=3)
 (i) जैसे ही मैं घर से बाहर निकला, बिल्ली ने रास्ता काट दिया। (सरल वाक्य में परिवर्तित कीजिए)
 (ii) खाना खत्म होने पर सब लोग चले गए। (मिश्र वाक्य में परिवर्तित कीजिए)
 (iii) लोकनायक का भाषण समाप्त होते ही लोग घर चले गए। (संयुक्त वाक्य में परिवर्तित कीजिए)
4. (क) निम्नलिखित शब्दों का समस्त पद बनाकर समास के भेद का नाम भी लिखिए- (2)
 (i) कला में कुशल (ii) जितना संभव हो
- (ख) निम्नलिखित समस्त पदों का विग्रह करके समास के भेद का नाम लिखिए- (2)
 (i) सतसई (ii) भयातुर
5. (क) निम्नलिखित वाक्यों को शुद्ध करके लिखिए- (4)
 (i) शहीदों का देश सदा आभारी रहेगा।
 (ii) आज रविवार का दिन है।
 (iii) इस समय दस बजा है।
 (iv) एक गुलाब की फूलों की माला चाहिए।
- (ख) 'धुन का पक्का होना' - मुहावरे का अर्थ लिखकर वाक्य में प्रयोग कीजिए। (2)

खंड- 'ग'

6. निम्नलिखित प्रश्नों के उत्तर दीजिए- (2+2+1)
 (i) कलकत्ता वासियों के लिए 26 जनवरी 1931 का दिन क्यों महत्त्वपूर्ण था?
 (ii) ततारा की तलवार के बारे में लोगों का क्या मत था?
 (iii) बड़े भाई साहब छोटे भाई से उम्र में कितने बड़े थे और वे कौन सी कक्षा में पढ़ते थे?
7. बड़े भाई साहब का चरित्र चित्रण लिखिए- (5)
 अथवा
 खड़ियाँ जब बंधन बन बोझ बनने लगे तब उनका टूट जाना ही अच्छा है। क्यों? स्पष्ट कीजिए।
8. निम्नलिखित प्रश्नों के उत्तर दीजिए- (2+2+1)
 (i) अपने स्वभाव को निर्मल रखने के लिए कबीर ने क्या उपाय सुझाया है?
 (ii) मीराबाई श्याम की चाकरी क्यों करना चाहती हैं?
 (iii) 'तोप' कविता में तोप को दो बार चमकाने की बात की गई है। ये दो अवसर कौन से होंगे?
9. पावस ऋतु में प्रकृति में कौन-कौन से परिवर्तन आते हैं? पंत जी की कविता के आधार पर स्पष्ट कीजिए। (5)
 अथवा
 कंपनी बाग में रखी तोप क्या सीख देती है?
10. समाज में रिश्तों की क्या अहमियत है? 'हरिहर काका' पाठ के आधार पर बताइए। (5)
 अथवा
 वर्तमान समाज में हरिहर काका जैसे वृद्ध व्यक्तियों के लिए युवा पीढ़ी का क्या कर्तव्य है?

खंड- 'घ'

11. निम्नलिखित में से किसी एक विषय पर दिए गए संकेत बिन्दुओं के आधार पर लगभग 80 से 100 शब्दों में अनुच्छेद लिखिए- (5)
 (क) आज का युवा संसार (ख) मीडिया का सामाजिक उत्तरदायित्व (ग) देश की संपत्ति, हमारी संपत्ति है
 • युवाओं में अदम्य साहस व शक्ति • मीडिया का अर्थ • राष्ट्रीय संपत्ति का अर्थ
 • जागरूकता • मीडिया के प्रकार • राष्ट्रीय संपत्ति की रक्षा क्यों?
 • देश के प्रति प्रेम • सामाजिक दायित्व • राष्ट्रीय संपत्ति की सुरक्षा करना हमारा कर्तव्य
 • उपसंहार
12. आपके इलाके के आसपास कई अनाधिकृत ठेले वालों, खोमचे वालों ने बिक्री के लिए डेरा बसा लिया है, उन्हें हटाने के लिए नगर निगम के अधिकारी को पत्र लिखिए। (5)
 अथवा
 सारी औपचारिकताएँ पूरी करने के बाद भी अभी तक आपको अपना आधार पहचान-पत्र नहीं मिला है। इस समस्या के समाधान हेतु संबंधित अधिकारी को पत्र लिखिए।
13. केरल के बाढ़ से प्रभावित लोगों की मदद के लिए विद्यार्थियों के योगदान को प्रोत्साहित करने हेतु विद्यालय सचिव की ओर से 25-30 शब्दों में सूचना लिखिए। (5)
 अथवा
 आप अपने इलाके के गरीब बच्चों को प्रत्येक शनिवार एवं रविवार निःशुल्क पढ़ाना चाहते हैं। उससे संबंधित सूचना लगभग 25-30 शब्दों में जारी कीजिए।
14. सड़कों पर फैली गंदगी के प्रति चिन्ता व्यक्त करते हुए दो छात्रों के बीच संवाद लगभग 50-60 शब्दों में लिखिए- (5)
 अथवा
 विद्यालय में मोबाइल फोन के प्रयोग पर अध्यापक एवं अभिभावक के बीच लगभग 50 शब्दों में संवाद लिखिए।
15. अपने विद्यालय की संस्था 'संकल्प' की ओर से विद्यार्थियों को समाजसेवा से जुड़ने का आग्रह करते हुए लगभग 50 शब्दों का एक विज्ञापन का आलेख तैयार कीजिए। (5)
 अथवा

शहर में बढ़ रहे डेंगू के प्रकोप से बचने के लिए स्वास्थ्य विभाग द्वारा जारी विज्ञापन का आलेख लगभग 50 शब्दों में तैयार कीजिए।

अस्मिन् प्रश्नपत्रे चत्वारः खण्डाः सन्ति-

क-खण्डः - अपठित-अवबोधनम्	- 10 अङ्काः
ख-खण्डः - रचनात्मक-कार्यम्	- 15 अङ्काः
ग-खण्डः - अनुप्रयुक्त-व्याकरणम्	- 25 अङ्काः
घ-खण्डः - पठित-अवबोधनम्	- 30 अङ्काः

'क' खण्डः - अपठित-अवबोधनम् - 10 अङ्काः

1. अधोलिखितं गद्यांशं पठित्वा प्रश्नान् उत्तरत-

प्रकृतिः सर्वेषां प्राणिनां संरक्षणाय यतते। इयं विविधैः प्रकारैः सर्वान् पोषयति, सुखसाधनैः च तर्पयति। पृथ्वी, जलं, तेजः, वायुः, आकाशः च अस्याः प्रमुखानि पञ्चतत्त्वानि। तानि एव मिलित्वा अस्माकं पर्यावरणं रचयन्ति। अतएव अस्माभिः एषा प्रकृतिः रक्षणीया। तेन च पर्यावरणं रक्षितं भविष्यति। प्राचीनकाले लोकमङ्गल आशंसिनः ऋषयः वने वसन्ति स्म। यतो हि वने अद्यापि सुरक्षितं पर्यावरणम् उपलभ्यते स्म। विविधाः विहगाः कलकूजितैः तत्र श्रोत्ररसायनं ददति। नद्यः अमृतस्वादु निर्मलं जलं प्रयच्छन्ति। वृक्षाः फलानि पुष्पाणि इन्धन-काष्ठानि च बाहुल्येन उपहरन्ति। शीतलमपवनाः प्राणवायुं वितरन्ति। परन्तु स्वार्थेन अन्धः मानवः अद्य पर्यावरणं नाशयति। 'धर्मो रक्षति रक्षितः' इति आर्षवचनम्। 'पर्यावरणरक्षणम् अपि धर्मस्य अङ्गम्' इति ऋषयः प्रतिपादितवन्तः।

I. एकपदेन उत्तरत-

(½x4=2)

- (i) धर्मस्य एव अङ्गं किम्?
- (ii) प्रकृतिः केषां रक्षणाय प्रयत्नं करोति?
- (iii) अस्माभिः का रक्षणीया?
- (iv) स्वच्छं जलं काः यच्छन्ति?

II. पूर्णवाक्येन उत्तरत-

(2x2=4)

- (i) वनवृक्षाः अद्यापि किम् उपहरन्ति?
- (ii) पञ्चतत्त्वानि कानि सन्ति?

III. गद्यांशं पठित्वा उचितं शीर्षकं लिखत।

(2)

IV. भाषिककार्यम्-

(½x4=2)

- (i) 'विविधैः प्रकारैः' अत्र विशेषणपदं किम्?
- (ii) 'यतते' इति क्रियापदस्य कर्तृपदं गद्यांशे किम्?
(क) वृक्षाः (ख) प्रकृतिः (ग) नद्यः
- (iii) 'इयं सर्वान् पोषयति' अत्र 'इयं' इति पदं कस्यै प्रयुक्तम्?
(क) प्रकृत्यै (ख) नद्यै (ग) श्रीमत्यै
- (iv) 'आधुनिकसमये' अस्य पदस्य विलोमपदं गद्यांशे किम्?
(क) दुर्भिक्षकाले (ख) प्राचीनकाले (ग) वर्षाकाले

'ख' खण्डः- रचनात्मक-कार्यम् - 15 अङ्काः

2. भवान् सोमेशः। स्वविद्यालयस्य वार्षिकोत्सवं वर्णयन्तः मित्रं प्रति लिखिते पत्रे मञ्जूषायाः उचितपदानि चित्वा रिक्तस्थानानि पूरयत-

(½x10=5)

(i) _____
तिथिः _____

प्रिय (ii) _____

नमस्ते।

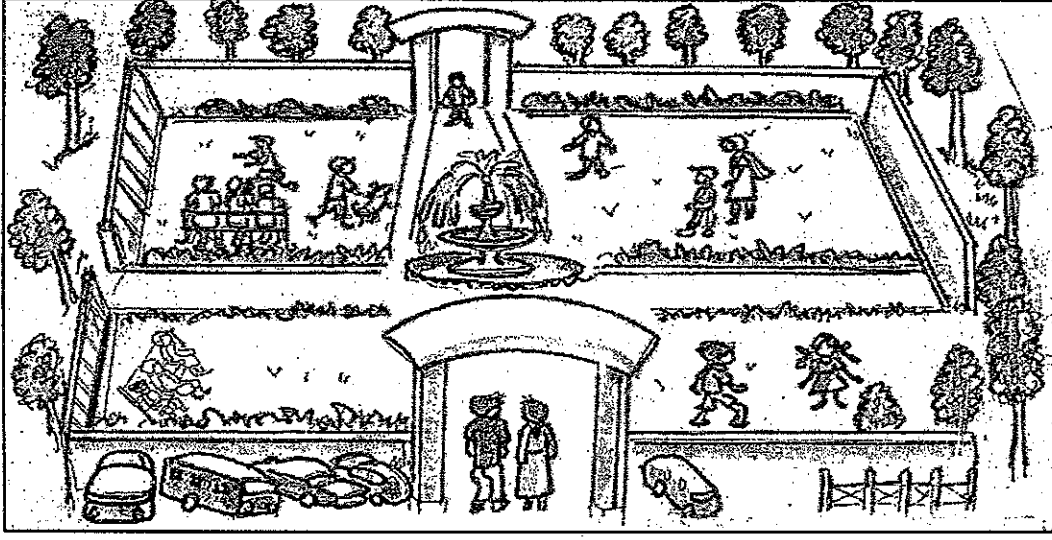
अत्र कुशलं (iii) _____। भवतः (iv) _____ प्राप्तम्। अहं विद्यालयस्य (v) _____ वर्णयामि। एकमासपूर्वमेव विद्यालयस्य सर्वे अध्यापकाः छात्राः च कार्येषु व्यस्ताः आसन्। शिक्षानिदेशकः (vi) _____ अध्यक्षः आसीत्। सः कार्यक्रमस्य अतीव (vii) _____ अकरोत्, योग्येभ्यः (viii) _____ च पारितोषिकाणि अयच्छत्। सर्वे (ix) _____ आसन्। पितृभ्याम् नमः।

भवतः सुहृद्

(x) _____

मञ्जूषापदानि- मित्र, भिलाईतः, सोमेशः, पत्रम्, तत्रास्तु, कार्यक्रमस्य, वार्षिकोत्सवं, छात्रेभ्यः, प्रशंसां, प्रसन्नाः

उपवनस्य, उपविशन्ति, यत्र-तत्र, वहति, वृक्षाः, वाहनानि, भ्रमन्ति, जनाः, प्राप्नुवन्ति, शुद्धवायुः, स्वास्थ्यलाभं, द्वारे



‘ग’ खण्डः - अनुप्रयुक्त-व्याकरणम् - 25 अङ्काः

4. रेखाङ्कितपदानां समुचितं सन्धिं सन्धिविच्छेदं वा कुरुत- (1x4=4)

- (i) छात्राः विद्यालयात् गृहम् आगच्छन्ति।
(ii) आशान्वितः अहं भवत्समीपम् आगतोऽस्मि।
(iii) मनः हि चञ्चलम् अस्ति।
(iv) सर्वे जनाः महा-ईशं भजन्ति।

5. रेखाङ्कितपदानां समासं विग्रहं वा प्रदत्तविकल्पेभ्यः चित्वा लिखत- (1x4=4)

- (i) मेघः शीतलसलिलं ददाति।
(क) शीतला सलिलं (ख) शीतलं सलिलं (ग) शीतलः सलिलम्
(ii) मूर्खः न ज्ञानी अपि कथ्यते।
(क) विज्ञानी (ख) प्रज्ञानी (ग) अज्ञानी
(iii) मदोद्धताः कपयः अहसन्।
(क) मदोद्धताः (ख) मदेन उद्धताः (ग) मदोद्ध ताः
(iv) पञ्चानां वटानां समाहारः इति स्थाने रामः अवसत्।
(क) पञ्चपात्रम् (ख) पञ्चवटाः (ग) पञ्चवटी

6. प्रदत्तविकल्पेभ्यः चित्वा प्रकृतिप्रत्ययौ संयोज्य विभज्य वा लिखत- (1x4=4)

- (i) सदाचारः विशेषतः रक्ष+अनीयर्।
(क) रक्षणीयः (ख) राक्षणीया (ग) रक्षिणीया
(ii) पापी नरः सदैव तिरस्कारं लभते।
(क) पाप+तुमुन् (ख) पाप+इन् (ग) पाप+मतुप्
(iii) सेतुनिर्माणं समाज+ठक् कार्यम् अस्ति।
(क) सामाजकः (ख) समाजकम् (ग) सामाजिकम्
(iv) विवेकी जनः बुद्धि+मतुप् अपि भवति।
(क) बुद्धिमत् (ख) बुद्धिमान् (ग) बुद्धिवत्

7. वाचानुसारम् उचितं पदं चित्वा रिक्तस्थानानि पूरयत- (1x3=3)

- गौरी - त्वम् अधुना कुत्र (i) ? (गच्छति, गच्छसि, गच्छामि)
माधवी - (ii) तु इदानीं आपणं गम्यते। (माम्, अहम्, मया)
गौरी - आपणात् किं क्रेतुं गच्छसि?
माधवी - मया तु (iii) एव क्रेतुं गम्यते। (पुस्तकानि, पुस्तकानाम्, पुस्तकाभ्याम्)

8. समयानुसारम् उचितं पदं चित्वा लिखत- (½x4=2)

- (i) नरेशः 5:15 वादने योगाभ्यासं करोति।
(क) पादोन-षट् (ख) सपादपञ्च (ग) पञ्च
(ii) सः 5:45 वादने समाचारपत्रं पठति।
(क) सार्द्धपञ्च (ख) पञ्चसपाद (ग) पादोन-षट्
(iii) सः 8:30 वादने प्रातराशं करोति।
(क) अष्ट (ख) सार्द्ध-अष्ट (ग) पादोन-अष्ट
(iv) सः 9:00 वादने कार्यालये गच्छति।
(क) नव (ख) सार्द्धनव (ग) पादोननव

9. उचित-अव्ययपदानां चित्वा रिक्तस्थानानि पूरयत-

(1x4=4)

- (i) मया सह रामः-----गच्छति।
(iii) जनाः उद्याने-----भ्रमन्ति।

- (ii) शिशुः-----रोदति।
(iv) त्वं-----विद्यालयं गमिष्यसि?

मञ्जूषापदानि-

इतस्ततः, उच्चैः, अपि, कदा

10. अशुद्धपदानां कृते शुद्धपदानि लिखत-

(1x4=4)

- (i) पुरा वाल्मीकिः रामायणम् अलिखत्। (लिखति / अलिखाव / अलिखत्)
(ii) यूयम् मिलित्वा पाठं पठामः। (ते / वयम् / अहम्)
(iii) सः बालिका गीतं गायति। (बालकः / बालिके / बालकम्)
(iv) पुत्रः पितरं सेवसे। (सेवे / सेवते / सेवावहे)

'घ' खण्डः - पठित-अवबोधनम्- 30 अङ्काः

11. गद्यांशं पठित्वा प्रदत्तप्रश्नान् उत्तरत-

भगवान् बोधिसत्त्वः बहुजन्मार्जितपुण्यफलैः शिवीनां राजा बभूव। जनकल्याणकर्मसु रतः असौ पुत्रवत् प्रजाः पालयति स्म। सः नगरस्य समन्ततः धनधान्यसमृद्ध्याः दानशालाः अकारयत्। तत्र अर्थिनां समूहः अभीष्टानि वस्तूनि प्राप्य सन्तुष्टः अभवत्। राज्ञः दानशीलता आकर्ष्य देशान्तरेभ्योऽपि जनाः तं देशम् आयान्ति स्म। अथ कदाचित् दानशालासु अर्थिनां विरलसंख्यां विलोक्य सः अचिन्तयत् - "मम अर्थिनः तु धनलाभमात्रेण सन्तोषं लभन्ते। नूनं ते दानवीराः सौभाग्यशालिनः यान् याचकाः शरीरस्य अङ्गानि अपि याचन्ते" इति।

I. एकपदेन उत्तरत-

(1x2=2)

- (i) सः राजा काः पालयति स्म?
(ii) बोधिसत्त्वः कैः शिवीनां राजा बभूव?

II. पूर्णवाक्येन उत्तरत-

(2x1=2)

- (i) दानशालासु विचरन् राजा किम् अचिन्तयत्?

III. भाषिककार्यम् -

(1x2=2)

- (i) 'धनधान्यसमृद्ध्याः दानशालाः' अत्र विशेषणपदं किम्?
(ii) 'श्रुत्वा' इति पदस्य पर्यायपदं गद्यांशे किम्?
(क) आकर्ष्य (ख) विकर्ष्य (ग) प्रकर्ष्य

12. श्लोकं पठित्वा प्रश्नान् उत्तरत-

"कोऽनर्थफलः? मानः, का सुखदा? साधुजनमैत्री।
सर्वव्यसनविनाशे को वक्षः, सर्वथा त्यागी।।"

I. एकपदेन उत्तरत-

(1x2=2)

- (i) कः अनिष्टफलदायकः भवति?
(ii) सज्जनानां मित्रता कीदृशी भवति?

II. पूर्णवाक्येन उत्तरत-

(2x1=2)

- (i) त्यागी जनः कीदृशः भवति?

III. निर्देशानुसारम् उत्तरत-

(1x2=2)

- (i) 'सुखदा' इति पदस्य विलोमपदं किम्?
(क) सर्वदा (ख) सुखदा (ग) यशोदा
(ii) 'साधुजनमैत्री सुखदा' अत्र विशेषणपदं किम्?

13. नाट्यांशं पठित्वा प्रश्नान् उत्तरत-

यूथपः - सूपकाराणां मेषेण सह एषः कलहः नूनं भवतां विनाशकारणं भविष्यति। ततः सर्वेषां संक्षयः न भवेत्, तदेतद् राजभवनं परित्यज्य वनं गच्छामः।

कपयः - (प्रहस्य) न वयं स्वर्गसमानोपभोगान् विहाय अटव्यां क्षार-तिक्त-कषाय-कटु-रूक्षफलानि भक्षयिष्यामः।

यूथपः - (सगद्गदम्) रसनास्वादलुब्धाः यूयम् अस्य सुखस्य कुपरिणामं न जानीथ। अहं तु वनं गच्छामि।

I. एकपदेन उत्तरत-

(1x2=2)

- (i) मेषेण सह केषां कलहः भवति?
(ii) कपयः कान् त्यक्त्वा अटव्यां रूक्षफलानि खादितुं न इच्छन्ति?

II. पूर्णवाक्येन उत्तरत-

(2x1=2)

- (i) सगद्गदम् यूथपतिः किं कथयति?

III. भाषिककार्यम्-

(1x2=2)

- (i) 'नाशः' इति पदस्य किं पर्यायपदं नाट्ये प्रयुक्तम्?
(क) भयः (ख) वयः (ग) संक्षयः
(ii) 'जानीथ' इति क्रियापदस्य कर्तृपदं किम्?
(क) अहम् (ख) यूयम् (ग) वयम्

14. रेखाङ्कितपदानि आधृत्य प्रश्ननिर्माणं कुरुत-

(1x4=4)

- (i) ज्वलन् मेषः अश्वशालां प्रतिशति।
- (ii) याचकाः सन्तुष्टाः अभवन्।
- (iii) कामः एव क्रोधं जनयति।
- (iv) विषयाणाम् उपभोगेन तेषु आसक्तिः जायते।

15. मञ्जूषातः पदानि चित्वा अन्वयं पूरयत-

(½x8=4)

- I. "शक्नोतीहैव यः सोढुं प्राक् शरीरविमोक्षणात्।
कामक्रोधोद्भवं वेगं, स युक्तः स सुखी नरः।।"

अन्वयः - यः (i) _____ प्राक् कामक्रोधोद्भवं (ii) _____ इह एव सोढुं शक्नोति सः (iii) _____ युक्तः सः
(iv) _____ (भवति)।

मञ्जूषापदानि-

नरः, वेगं, शरीरविमोक्षणात्, सुखी

- II. "अपूर्वः कोऽपि कोशोऽयं विद्यते तव भारति।
व्ययतो वृद्धिमायाति क्षयमायाति सञ्चयात्।।"

अन्वयः - भारति! (i) _____ अयं कोशः कः अपि (ii) _____ विद्यते। (iii) _____ वृद्धिम् आयाति सञ्चयात् (च)
(iv) _____ आयाति।

मञ्जूषापदानि-

क्षयम्, तव, अपूर्वः, व्ययतः

16. प्रसङ्गानुसारम् उचितम् अर्थं चित्वा लिखत-

(1x4=4)

- (i) एतेषां कलहः न वानराणां हिताय।
(क) विवादः (ख) प्रासादः (ग) प्रमादः
- (ii) निःसारलघुधनम्।
(क) चञ्चलं धनम् (ख) तुच्छधनम् (ग) स्वच्छधनम्
- (iii) प्रजहि एनं पाप्मानम्।
(क) मारय (ख) भक्षय (ग) निवारय
- (iv) किम् अनर्घम्? यत् अवसरे दत्तम्।
(क) तुच्छम् (ख) किञ्चिद्कालम् (ग) बहुमूल्यम्

DELHI PUBLIC SCHOOL, BHILAI (C.G.)

Time: 3 hrs.

MID-TERM EXAMINATION, 2018

17.09.18

Class: X

ENGLISH (COMMUNICATIVE)

M.M:80

General Instructions:

- (i) This paper is divided into three sections.
Section A - Reading - 20 marks
Section B - Writing & Grammar - 30 marks
Section C - Literature - 30 marks
- (ii) All the questions are compulsory.
- (iii) Any section may be attempted at a time.
- (iv) All the questions of that section must be attempted in their right order.

SECTION-A [READING]

[20]

1. Read the following passage carefully and answer the questions that follow:

(1×8=8)

Miranda House Aids Digital Vision

Little but significant steps are being taken towards enabling the disabled and sensitising the others — Delhi University's Miranda House is setting an example of being a college that's using digital technology to make its campus disabled-friendly.

Lakshita, the enabling committee of the college, has launched a phone application that helps the blind navigate the premises. When anyone with the app on their smartphone comes within three feet of any of the 100 QR codes (quick response codes) installed across the college, they get directions.

Sushma, a B.A. Hindi (Hons) student, who is visually impaired, explains, "If I'm passing by the canteen, my phone will tell me how many steps to take in which direction." To verify this, some students were asked to check on how well the app functions. It was found that it's prompt and easy to use. When some visually impaired students were asked on how well the app worked, one of them replied, "We used to feel uncomfortable asking other students for directions every now and then. But with this app now we feel more confident," said Sushma. Another blind student, Shanti agrees that the app has simplified navigation. "App is simple and the voice message is clear," she said.

The Principal adds with pride, "Technology is something that almost every student understands, and at the same time, is easy to use. These QR codes make the students wonder what they are and what they do, thus creating awareness and sensitising the students."

A senior student studying in the final year said she has seen many students use this app. "It works well and adds a different dimension of help, making them self-reliant," she says.

Besides the 'digital vision signboards', the college has installed a Braille notice board, converted recommended textbooks into Braille, and released Braille editions of the college magazine. Miranda House also has several ramps, aiding the movement of the disabled, and now, plans are underway to install elevators.

- (a) What does the expression- 'little but significant steps' imply?
- (b) Why is there a need to sensitise other students too?
- (c) What infrastructure changes have been made to make the campus disabled friendly?
- (d) What steps have been taken to promote easy reading for the visually challenged?
- (e) How does the phone app help in navigation?
- (f) What are QR codes?
- (g) How did the reporter verify the authenticity of the app?
- (h) Do you think the college has plans to do something more in near future? If so what are they?

2. Read the following passage and answer the questions that follow:

1. Solar energy has long struggled to compete with fossil fuels due to the high cost of solar panel production, installation and maintenance. It is here that robots made their entry and have come in handy. The auto industry and many other solar companies have automated the production of photovoltaic (PV) panels with robots that are more cost effective and precise. This has led to a fall in price of solar energy in recent years.

2. However, the savings generated by robotic production alone have not been enough to create widespread availability. In order to create a competitive edge, many companies had to look into other areas to cut cost. Solar Company Alion has developed the "Rover", a robot that can install solar panels in rows, along concreted bases using only an operator and a small team to create the foundation. The robot can work continuously in the hot, sunny areas, where solar panels necessarily have to be installed. This brings down the cost of installation and materials by 15 percent over conventional methods.
3. Once Installation is complete, other robots take over the maintenance of the panels by moving across each row to wash away any surface material that may reduce the efficiency of the panel, a time consuming task previously done by teams of people with hoses.
4. Robotic innovation is not restricted to the solar industry. Competitors in energy field like mining, oil and gas industries are also seeking to integrate robots to cut down on their costs.
5. Driverless trucks and trains in mines today are used to cut cost, eliminating the need to pay operators. Similarly companies across the mining industry are looking to replace human workers at the face of the mines with robotic technology, as conditions hundreds of metres below ground are often extremely dangerous. Robotic technology can be remotely operated and is cheaper.
6. In Canada, rig robots can now assemble an entire down hole assembly system for obtaining oil at the bottom of the sea. Other welding robots have become more sophisticated and require little help when making repairs. Robotic companies are now trying to replace manpower by fully automating the entire drilling process from the floor to retrieval.
7. Developed countries have committed themselves to renewable energy resources. The U.S. recently donated 4 billion dollars in private sector funding for innovations. In emerging energy markets, solar innovations are becoming more sustainable and affordable than fossil fuels.

2.1 Answer the following questions briefly:

(2×4=8)

- a) Why is solar energy still not a preferable mode for energy generation?
- b) How are the companies using solar panels trying to cope with the cost?
- c) What are some of the areas being taken over by robots?
- d) Why is the U.S. Government donating money to private companies?

2.2 Fill in the blanks with one word or a phrase:

(1×4=4)

- a) Pick out the word from the passage which means the same as 'distantly' _____.
(Para -5)
- b) _____ is a system in which work is done with mechanical or electronic equipment and not human beings. (Para - 6)
- c) What did the solar company Alion develop?
- d) Why did the solar energy prices fall?

SECTION-B [WRITING AND GRAMMAR]

[30]

3. You are Malini / Mahesh, a resident of Shalimar Colony, Vikas Nagar. Yesterday you went for jogging for the first time in the newly constructed stadium near your colony. You noticed, much to your dismay, that most of the benches were broken, none of the toilets was functional and the bicycle track was full of pot holes. Write a letter of complaint to the Manager, Sports Stadium, Arun Bagh, Bhilai apprising him of the situation and asking him to take suitable measures to see that the stadium maintenance is not compromised with. (100-120 words). **(8)**

OR

Last week you and your family went to Malaysia for a short holiday. You travelled by Air India. You had put in a request for a wheel chair for your ailing mother at the time of buying your tickets. When you arrived at the IG Terminal — 3, none of the Kiosks to request for wheel chair was working. Moreover, the staff was not at all helpful.

Write a letter to the Chairman, Air India, Lalbagh, New Delhi complaining of the poor services. You are Rahul/Rohini, resident of Lakshami Nagar, Civil Lines, New Delhi. (100-120 words)

4. Using the cues given below, write an interesting story in 200-250 words. Give your story a catchy title. **(10)**

Winner of world's ugliest Dog contest- sweet and energetic dog- Victim of fire accident- Languished in a shelter for nine months- adopted by Chandler- named him Peanut- Chandler proposes to raise awareness about being kind to animals - prints posters.

OR

Ravi had been coming late to his office since the last month. His boss was very annoyed with him and warned him that he could be fired from his job. One day

5. Complete the passage below by filling the blanks with the most suitable word from the list given below: (1×4=4)

Right from his childhood, Ramanujan (a) _____ extraordinary love for mathematics. He was so obsessed (b) _____ discovering mathematical formulae and solutions that he (c) _____ forget to eat his meals. It was said that his mother and his wife (d) _____ feed him his meals so that he could continue writing, while he ate.

- | | | | | |
|-----|------------|--------------|----------------|----------------|
| (a) | i) display | ii) displays | iii) displayed | iv) displaying |
| (b) | i) to | ii) for | iii) in | iv) with |
| (c) | i) should | ii) would | iii) could | iv) may |
| (d) | i) had to | ii) have to | iii) has to | iv) had |

6. In the following passage one word is missing in each line. Write the missing word along with the word before and after it. (1×4=4)

	<u>Before</u>	<u>Missing word</u>	<u>After</u>
Corporate initiatives in field of –	eg. in	the	field
education increasing. The effort	a) -----	-----	-----
is not only understand the issue	b) -----	-----	-----
of the local population but in use	c) -----	-----	-----
of education as tool to address such issues.	d) -----	-----	-----

7. Read the following conversation and fill in the blanks in reported speech. (1×4=4)

Father : who do you think will win the match?
 Son : who are the men in blue?
 Father : That's the Indian team.
 Son : In my opinion the Indian team will win the match.

The father asked his son (a) _____. The son asked his father (b) _____. The father told him that (c) _____. The son said that (d) _____.

SECTION-C [LITERATURE]
 (Textbook + Extended Reading Text)

[30]

8. Read the extract given below and answer the questions that follow: (1×4=4)

Now, Amelia, you mustn't give way. We all got to die sometime or the other. It might have been worse.

- Who is the speaker?
- What did he imply when he said, "it could be worse"?
- What is the tone in the above lines?
- What does the expression 'mustn't give way' mean?

OR

*"When wasteful war shall statues overturn,
 And broils root out the work of masonry,
 Nor Mars his sword nor war's quick fire shall burn
 The living record of your memory"*

- What does the expression 'wasteful wars' imply?
- Explain the second line.
- Who is Mars and why does the poet refer to him?
- What is the rhyme scheme used in the above lines?

9. Answer any four of the following:

(2×4=8)

- (a) What surprise awaited the narrator at Poleta?
- (b) What way does the writer bring out humour through Miss Mebbin's naming of her cottage and the planting of tiger lilies?
- (c) What impression do you form of the Postmaster after reading the story 'The Letter'?
- (d) Bring out the irony in the frog's statement 'your song must be your own'.
- (e) 'Nothing beside remains'. What does the narrator mean when he says these words?

10. The author Dhumketu carefully builds up an atmosphere of Loneliness and Grief in the story 'The Letter'. Bring out this element with instances from the story. (100-120 words) (8)

OR

'Ozymandias' and 'Not Marble Nor Gilded Monuments' are about time. Compare the two sonnets in terms of the way in which 'Time' is treated by the poets. (100-120 words)

11. Describe the relationship between Anne Frank and Margot. (200-250 words)

(10)

OR

Write a detailed character sketch of Anne Frank.

Name: _____ Roll No. _____ Class/Sec. _____

Invigilator's Sign. _____

Note: • All questions are compulsory. • Each question carries 1 mark.

1. Two straight lines in same plane which never meet are called:
(a) angles (b) transversal lines (c) vertex (d) parallel lines
2. Locus of a point in a plane equidistant from a fixed point is known as:
(a) triangle (b) rectangle (c) hexagon (d) circle
3. Opposite angles of any quadrilateral inscribed in a circle are:
(a) tangent (b) supplementary (c) complementary (d) reflective
4. Angle subtended between any two chords of a circle, having common point on its circumference is called:
(a) circum angle (b) right angle (c) supplementary angle (d) complementary angle
5. Set of all ordered pair (x, y) which satisfies system of equations is called:
(a) solution set (b) null set (c) complex set (d) subset
6. A straight line which touches circumference of a circle at a single point only is known as:
(a) secant (b) sector (c) tangent (d) segment
7. A line that intersects two lines in different points is known as:
(a) angles (b) transversal lines (c) vertex (d) parallel lines
8. A rational fraction $N(x)/D(x)$, with $D(x)$ not equal to zero and degree of $N(x)$ is less than degree of $D(x)$ is known as:
(a) proper fraction (b) rational fraction (c) irrational fraction (d) improper fraction
9. A tangent line intersects circle at:
(a) two points (b) three points (c) single point (d) no point
10. A line segment joining any 2 points on circumference of a circle is called:
(a) arc (b) chord (c) segment (d) radius
11. Who defeated the Pratihara Empire?
(a) Aditya I (b) Krishna III (c) Parantaka I (d) Govinda III
12. Who founded the Rashtrakuta dynasty?
(a) Dantidurga (b) Dhruva (c) Govinda III (d) Indira III
13. In stone age, the Microliths were most commonly found in which of the following ages?
(a) Paleolithic (b) Mesolithic (c) Neolithic (d) Chalcolithic
14. Which of the following is not a correct statement about Buddhist Canonical literature?
(a) Abhidhamma Pitaka was compiled in third Buddhist Council
(b) Digha Nikaya is a part of the Sutta Pitaka
(c) Vinaya Pitaka primarily deals with monastic rules for monks and nuns
(d) Sutta Pitaka deals with philosophy and psychology and lays down methods for training the mind.
15. Which of the following is a correct statement about Indus Valley Civilization?
(a) Both Harappa and Mohenjodaro are located on the banks of Indus River
(b) Both Chanhudaro and Kalibangan were located within the boundaries of present day Rajasthan.
(c) Both Surkotada and Dholavira are located in Katch of Gujarat
(d) Lothal site was located on bank of Narmada river
16. In Stone Age, the Microliths were most commonly found in which of the following ages?
(a) Paleolithic (b) Mesolithic (c) Neolithic (d) Chalcolithic
17. Which of the following was most probably the first metal to be used in India?
(a) Iron (b) Copper (c) Gold (d) Silver
18. Who founded the Chola Empire?
(a) Rajadhiraj (b) Rajaraja (c) Rajendra I (d) Vijayalaya
19. Which of the following is the highest peak of Satpura Range?
(a) Gurushikhar (b) Dhupgarh (c) Pachmarhi (d) Mahendragiri
20. The Thummalapalle mine which is considered to have one of the world's largest reserves of 1.50 lakh tonnes of uranium is located in which among the following Indian States?
(a) Karnataka (b) Andhra Pradesh (c) Tamil Nadu (d) Kerala
21. Tropic of Cancer passes through which of the following group of Indian States:
(a) Gujarat, MP, Chhattisgarh, Manipur (b) Rajasthan, Jharkhand, West Bengal, Mizoram
(c) UP, MP, Bihar, Jharkhand (d) Maharashtra, Chhattisgarh, Orissa, Andhra Pradesh
22. The land frontier of India is about 15200 KM. Which of the following countries shares the largest border length with India?
(a) Bangladesh (b) Pakistan (c) China (d) Nepal
23. The lacustrine deposits of Kashmir called 'Karewas' are known for:
(a) Saffron Cultivation (b) Terrace farming (c) Apple Orchards (d) Jhum Cultivation
24. How long a person should have practiced in a High Court to be eligible to be appointed as a Judge of Supreme Court of India?
(a) 10 Years (b) 12 Years (c) 15 Years (d) 20 Years

25. Which of the following Statements is correct regarding the Election Commission of India?
- (a) It is an independent and statutory body. (b) It consists of members having a tenure of six years.
(c) It acts as a court for arbitration of disputes related to granting of recognition to political parties.
(d) Being an all-India body, it is also concerned with the elections with the elections to Gram Panchayats and State Municipalities.
26. Which of the following Schedules of the Constitution of India has to be amended to provide for the formation of a new state?
- (a) First Schedule (b) Second Schedule (c) Third Schedule (d) Ninth Schedule
27. The Constitution of India empowers the Supreme Court of India to adjudicate disputes between the Centre and the States through:
- (a) Appellate Jurisdiction (b) Original Jurisdiction
(c) Advisory Jurisdiction (d) Writ Jurisdiction
28. National Development refers to:
- (a) Equality (b) Democratic
(c) Employment (d) Development of all sections
29. Per capita income refers to:
- (a) Whole income (b) Average income. (c) National Income (d) None of these
30. BMI Stands for:
- (a) Body Mass Index (b) Bureau Mass Index
(c) Below Measure Index (d) None of these
31. The highest boiling point is of:
- (a) ethane (b) ethanol (c) ethanal (d) ethanoic acid
32. In evolutionary terms, we have more in common with:
- (a) a Chinese school boy (b) a chimpanzee (c) a spider (d) a bacterium
33. The gas evolved when ethanol reacts with sodium metal is:
- (a) H₂ (b) CO₂ (c) H₂O (d) CO
34. Which of the following elements is not present in stainless steel?
- (a) Iron (b) Tungsten (c) Chromium (d) Nickel
35. Which of the following can't be used to make a solar cell?
- (a) Silicon (b) Platinum (c) Gallium (d) Germanium
36. With the increase in atomic number in period:
- (a) metallic character decreases (b) metallic character increases
(c) chemical reactivity decreases (d) chemical reactivity increases
37. The uterus prepares itself to receive the fertilised egg:
- (a) every hour (b) every day (c) every month (d) every year
38. In the reaction the conc. H₂SO₄ acts as:
- (a) an oxidizing agent (b) provides acidic medium
(c) a dehydrating agent (d) a drying agent
39. Which of the following is not associated with Fleming's left hand rule?
- (a) Resistance (b) Magnetic field (c) Force (d) Current
40. The frequency of direct current is:
- (a) zero (b) 50 Hz (c) 60 Hz (d) 100 Hz
41. Every-hot object emits
- (a) X-rays (b) infra-red rays (c) visible light (d) none of these
42. An element reacts with oxygen to give a compound with a high melting point. This compound is also soluble in water. The element is likely to be:
- (a) calcium (b) carbon (c) silicon (d) iron
43. Thyroid glands is located:
- (a) near the heart (b) at the base of the brain
(c) in the neck region (d) between stomach and duodenum
44. In the reaction $2PbO + C \rightarrow 2Pb + CO_2$:
- (a) lead is getting reduced (b) carbon dioxide is getting oxidised
(c) lead oxide is getting reduced. (d) carbon is getting reduced.
45. At many places in the ocean, the difference in temperatures between the water 'at the surface of ocean' and 'at deeper levels' is upto:
- (a) 120°C (b) 80°C (c) 50°C (d) 20°C
46. The gas which turns fat and oil containing foods rancid is:
- (a) hydrogen (b) oxygen (c) nitrogen (d) carbon dioxide
47. A stream of positively charged particles (alpha particles) moving towards west is deflected towards north by a magnetic field. The direction of magnetic field is:
- (a) towards south (b) towards east (c) downward (d) upward.
48. In the equation $NaOH + HNO_3 \rightarrow NaNO_3 + H_2O$ nitric acid is acting as:
- (a) an oxidising agent (b) an acid (c) a nitrating agent (d) a dehydrating agent
49. Which order of relative size amongst the following is incorrect?
- (a) Li < Na < K (b) C < Si < Al (c) Mg > Al < Na (d) F < Cl < Br
50. A dynamo converts:
- (a) mechanical energy into sound energy (b) mechanical energy into electrical energy
(c) electrical energy into mechanical energy (d) electrical energy into sound energy

18. Evaluate $(\sin^2 15^\circ + \sin^2 75^\circ) + \sqrt{3}(\tan 13^\circ \cdot \tan 60^\circ \cdot \tan 27^\circ \cdot \cot 70^\circ \cdot \cot 20^\circ \cdot \tan 77^\circ \cdot \tan 63^\circ)$

OR

Evaluate $\frac{\cos 45^\circ}{\sec 30^\circ + \operatorname{cosec} 30^\circ}$

19. Prove that $(\sin A + \operatorname{cosec} A)^2 + (\cos A + \sec A)^2 = 7 + \tan^2 A + \cot^2 A$
20. Prove that the sum of the squares of the sides of a rhombus is equal to the sum of the square of its diagonals.

21. Prove that $\sqrt{\frac{\sec \theta + 1}{\sec \theta - 1}} + \sqrt{\frac{\sec \theta - 1}{\sec \theta + 1}} = 2 \operatorname{cosec} \theta$

22. Percentages of female teachers in middle schools of rural areas of various states are given in the following frequency table. Find the mode for this data.

Percentage of female teachers	10-25	25-40	40-55	55-70	70-85
Number of States	5	12	4	13	6

OR

Find the mean of the following frequency distribution by using step deviation method.

Class Interval	0-10	10-20	20-30	30-40	40-50
Frequency	14	24	26	20	16

SECTION : D

23. Obtain all zeroes of $3x^4 + 6x^3 - 2x^2 - 10x - 5$, if two of its zeroes are $\sqrt{\frac{5}{3}}$ and $-\sqrt{\frac{5}{3}}$.

OR

If the polynomial $8x^4 + 14x^3 - 2x^2 + 8x - 12$ is divided by $4x^2 + 3x - 2$, the remainder comes out to be $ax + b$. Find a and b .

24. A man travels 600 km to his home partly by train and partly by bus. He takes 8 hours if he travels 120 km by train and rest by bus. Further, he takes 20 minutes longer, if he travels 200 km by train and rest by bus. Find the speeds of the train and the bus.

OR

A boat covers 30 km upstream and 44 km downstream in 10 hours. Also, it covers 40 km upstream and 55 km downstream in 13 hours. Find the speed of boat in still water and that of the stream.

25. If the mean of the following distribution is 18, find the missing frequency.

Class Interval	11-13	13-15	15-17	17-19	19-21	21-23	23-25
Frequency	7	6	9	13	f	5	4

26. State and prove the Basic Proportionality theorem.

OR

Prove that the ratio of the areas of two similar triangles is equal to the ratio of the squares of their corresponding sides.

27. Prove that $\frac{\cos A - \sin A + 1}{\cos A + \sin A - 1} = \operatorname{cosec} A + \cot A$
28. BL and CM are medians of a triangle ABC right angled at A . Prove that $4(BL^2 + CM^2) = 5BC^2$.
29. Solve graphically the pair of linear equations: $3x - 4y + 3 = 0$ and $3x + 4y - 21 = 0$. Find the area of triangular region formed by these lines and x -axis.
30. The following table gives production yield per hectare of wheat of 100 farms of a village.

Production Yield (in kg/ha)	50-55	55-60	60-65	65-70	70-75	75-80
Number of Farms	2	8	12	24	38	16

Change the distribution to a more than type and draw its Ogive. Also find the median graphically.



General Instructions:

- 1) 1 mark questions are to be answered in one word or one sentence.
- 2) 2 marks questions are to be answered in 20-30 words.
- 3) 3 marks questions are to be answered in 50 words.
- 4) 5 marks questions are to be answered in 70 words.

PHYSICS

1. A ray of light is incident normally on a plane mirror. What will be the angle of incidence and angle of reflection? (1)
2. At what distance from a concave lens of focal length 20cm should a 6cm tall object be placed, so that it forms an image at a distance of 15 cm from the lens? Also determine the size of the image formed. Draw necessary ray diagram also. (3)
3. a) What is electrical resistance? (3)
 b) State the factors on which the electrical resistance of the conductor depends.
 c) A wire of length 2m and area of cross section 2cm^2 is having resistivity $1.6 \times 10^{-8} \Omega\text{m}$. What will be the resistance of the wire?
4. a) Name the phenomenon of splitting of white light. What is its cause? Explain how this phenomenon is used in the formation of rainbow? (3)
5. a) State the relation between potential difference, work done and charge moved. (3)
 b) Name the device used to measure potential difference across the conductor. Draw its symbol.
 c) Calculate the work done in moving a charge of 4C from a point at a potential of 220V to a point at 230V.

OR

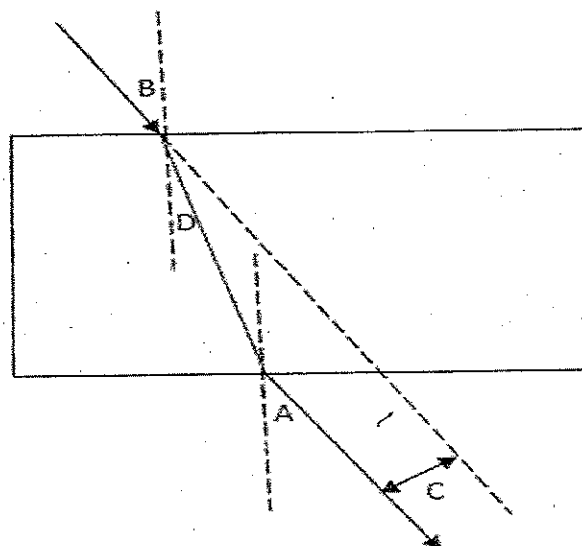
- i) Name the quantity measured as rate of flow of charge. What is its SI unit? Express it in terms of charge and time.
- ii) Which device is used to measure the above quantity? How is this device connected in the circuit? (5)
6. i) Explain the following terms in case of a spherical mirror- (5)
 a) Focal length b) Pole c) Principal Focus of a convex mirror.
 ii) Write 4 characteristic of the image formed by a plane mirror.
7. A student finds the writing on the blackboard as blurred and unclear while sitting on the last bench of the classroom. He however sees clearly when sitting on the front bench. (5)
 a) Draw a ray diagram to illustrate the formation of image of the blackboard writing by the eye lens when he sits at the last bench.
 b) Name the defect of vision the student is suffering from. Also list the two causes of this defect.
 c) Name the kind of lens that would enable him to see clearly when he is seating on the last bench. Draw ray diagram to illustrate how this lens helped him to see clearly.

OR

What is atmospheric refraction? Use this phenomenon to explain the following natural phenomenon

- i) twinkling of star ii) advance sunrise and delayed sunset.
- Draw necessary ray diagram to illustrate your answer.

8. What will be the position of object when the image formed by a convex lens is (2)
 a) virtual erect and enlarged b) real inverted and enlarged?
9. In the given ray diagram for refraction of light ray through the glass slab. What are marked as A, B, C and D? Write each of them. (2)



CHEMISTRY

1. What is the common name of the compound CaOCl_2 ? (1)
2. Write down any two uses of washing soda. (2)
3. Balance the following chemical equation- $\text{Al} + \text{Fe}_2\text{O}_3 \rightarrow \text{Fe} + \text{Al}_2\text{O}_3$ (3)
 Also identify the substance, which is oxidised, reduced, oxidant and reductant.

4. Name one metal which- (3)
 (i) is best conductor of heat,
 (ii) can be cut with a knife,
 (iii) is liquid at room temperature (25°C).
5. What are olfactory indicators? Give any two examples. (3)

OR

- Which gas is usually liberated when an acid reacts with a metal? Explain with an example. How can you test the gas?
6. What is Chlor-Alkali process? Explain it with balanced chemical equation. Name the electrodes where the gases produced in this process get collected. Mention any two uses of the alkali produced in this process. (5)

OR

- Explain the production of Plaster of Paris with balanced chemical equation. Why is half a molecule of water present in POP? Why is POP stored in moisture proof container? Explain with chemical equation. (5)
7. (a) Complete and balance the following word equation-
 (i) Hydrogen Sulphide + Oxygen \longrightarrow _____ + _____,
 (ii) Barium Chloride + Aluminium Sulphate \longrightarrow _____ + _____.
- (b) Five solution A, B, C, D and E when tested with universal indicator showed pH as 4, 1, 11, 7, 9 respectively. Which solution is -
 (i) neutral, (ii) strongly alkaline (iii) strongly acidic, (iv) weakly alkaline, (v) weakly acidic?
 Arrange the above pH values in increasing order of hydrogen ion concentration.
8. What are the nature (acidic/basic/neutral) of the solutions if colour changed in pH paper as pink, greenish yellow and dark blue? (2)
9. Two samples of fruit juice A and B have pH 4.5 and 2.0 respectively. Which sample is more sour and why? (2)

BIOLOGY

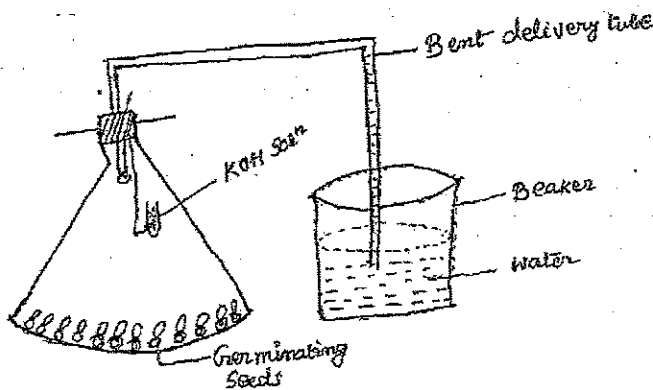
1. What are the three events occur during the process of photosynthesis? (2)
2. What are nephrons? Name four substances which are selectively re-absorbed by the tubular part of the nephron. (2)
3. Why is it necessary to separate oxygenated and deoxygenated blood in mammals and birds? Highlight three points (3)

OR

- Draw a schematic representation of breakdown of glucose by various pathways.
4. How is small intestine designed to absorb digested food? Mention three points. (3)
5. (i) Write one difference between sensory neuron and motor neuron (3)
 (ii) Which structure protects the brain in our body?
 (iii) What is reflex action? (3+2=5)
6. (i) Draw a labelled diagram of Stomata. List any two functions of Stomata.
 (ii) Why aquatic organisms have to breathe faster than the terrestrial organisms? (1x5=5)
7. (i) What are the two organs constitute the central nervous system?
 (ii) Which is the main thinking part of the brain?
 (iii) Which part of the hind brain controls involuntary actions like blood pressure, vomiting etc.
 (iv) Which part of the hind brain maintains posture and equilibrium of the body?
 (v) Give two examples of reflex action.
8. An experiment is conducted to show respiration in germinating seeds.
 (i) Which gas is released from the germinating seeds which turns lime water milky? (1)
 (ii) What is the role of KOH solution which is kept and hang in a small test tube inside the conical flask? (1)

OR

In the experimental set up given below, why does the water level rises up in the bent tube.



9. Which stain is used to study a temporary mount of a leaf peel? Why glycerine is used before putting a cover slip? (1+1=2)

