XI Science

Unit Test-1

2024-25

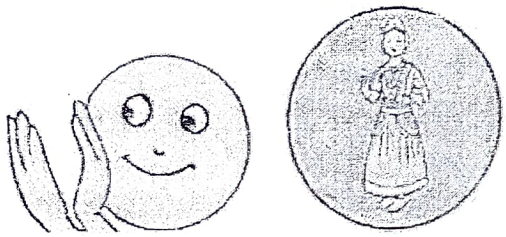
XI Science

नवकोकण शिक्षण संस्था

दिनांक :04/09/2024 डी. बी. जे. महाविद्यालयः, चिपळूणम् उपस्थिति क्रमांकः
11 कक्ष्या - कला, विज्ञानं, वाणिज्यम्
प्रथम सत्र घटकपरीक्षा - 2024 - 25
समयः - 1.30 होरा विषयः - संस्कृतम् पृष्ठ - 2 अङ्काः - 25

प्रथमः विभागः - सुगमसंस्कृतम् (4)

प्रश्नः 1 अ) चित्रं दृष्ट्वा भावमुद्रानामानि लिखत। 2



प्रश्नः 1 ब) अधोदत्तान् शब्दान् योग्यस्तबके वर्गीकुरुत। (केवलं 4) 2
(अपूपः, स्वदयन्त्रम्, पर्पटः, वेष्टिः, स्वेदकः, धनाधिकारी)

वस्त्रालयः	आहारः	कोषागारः
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द्वितीयः विभागः - गद्यम् (10)
(अवबोधनं, शब्दज्ञानं, स्पष्टीकरणम्)

प्रश्नः 2 अ) गद्यांशं पठित्वा निर्दिष्टाः कृतीः कुरुत। 5

अ 1) अवबोधनम् 3

1) पूर्णवाक्येन उत्तरं लिखत।
जनाः कथं संस्कृतं प्रति आकृष्टाः?

2) रेखाङ्कितं पदम् आधृत्य संस्कृतभाषया प्रश्ननिर्माणं कुरुत।
संस्कृतभाषया वर्णयितुं शक्याः।

3) वाक्यं पूर्णं लिखित्वा सत्यं वा असत्यम् इति लिखत।
पत्रकारिता अभ्यासक्रमः संस्कृतेन अस्ति।

एवं संस्कृतमाध्यमेन पत्रकारितायाः मार्गक्रमणं लक्षणीयम् । संस्कृतभाषा न केवलं पुराणकथाविषये सीमिता अपि तु आधुनिककाले प्रचलिताः सर्वे विषयाः संस्कृतभाषया वर्णयितुं शक्याः। अतः नैके जनाः संस्कृतपत्रकारितया संस्कृतं प्रति आकृष्टाः । संस्कृतेन पत्रकारितां युवकाः वृत्तिरूपेण अपि स्वीकर्तुं शक्नुवन्ति इति विचारेण भारतीय-जनसञ्चार-संस्था (IIMC) द्वारा संस्कृत-पत्रकारिता-अभ्यासक्रमः अपि आरब्धः।

अ 2) शब्दज्ञानम्

1) विशेषणे चित्वा लिखत। संस्कृतभाषा - --------, विषयाः --------

2) समानार्थकपदे चित्वा लिखत। तरुणाः - --------, चिन्तनं - --------

प्रश्नः 2 ई) माध्यमभाषया ससन्दर्भं स्पष्टीकुरुत।
एवं संस्कृतमाध्यमेन पत्रकारितायाः मार्गक्रमणं लक्षणीयम्।

तृतीयः विभागः - पद्यम् (9)
(अवबोधनं, शब्दज्ञानं, स्पष्टीकरणम्)

प्रश्नः 3 अ) पद्यांशं पठित्वा निर्दिष्टाः कृतीः कुरुत।

अ 1) अवबोधनम्

1) नामस्थाने सर्वनाम लिखित्वा वाक्यं पूर्णं लिखत।
सर्वेषु शास्त्रेषु सारं गृह्णन्ति। (तद्)

2) रेखाङ्कितं पदम् आधृत्य संस्कृतभाषया प्रश्ननिर्माणं कुरुत।
षट्पदः पुष्पमध्यस्थः सारम् उद्धरेत्।

षट्पदः पुष्पमध्यस्थो यथा सारं समुद्धरेत् ।
तथा सर्वेषु शास्त्रेषु सारं गृह्णन्ति पण्डिताः ॥८॥

मुक्ताफलैः किं मृगपक्षिणा च मिष्टान्नपानैः किमु गर्दभाणाम्
अन्धस्य दीपो बधिरस्य गीतं मूर्खस्य किं शास्त्रकथाप्रसङ्गः

अ 2) शब्दज्ञानम्

1) समानार्थकशब्दं चित्वा लिखत। - भ्रमरः, पक्वान्नम्

2) षष्ठीविभक्त्यन्तपदे चित्वा लिखत।

प्रश्नः 3 इ) माध्यमभाषया ससंदर्भं स्पष्टीकुरुत।
सर्वैर्गुणैस्समाविष्टो लघुरूपो निरामयः।

चतुर्थः विभागः - भाषाभ्यासः (2)

इ) तद्धितान्तकृदन्तानि उचितस्तम्भे पूरयत। (4 तः 2)

तद्धितान्ताः	कृदन्ताः
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(मञ्जूषा - पत्रकारिता, समालोक्य, शैघ्र्यम्, मध्यस्थः)

Date:- 05 /09/2024 Navkonkan Education Society's Roll No.

D.B.J.College, Chiplun

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Time :-1½ Hrs Sub:- Hindi Pages :- 2 Max.Marks :- 25

कृति १ अ) निम्नलिखित गद्यांश पढकर सूचना के अनुसार कृतिया कीजिए। (६ अंक)

दादी ने नरक चौदस के दिन आटे के दीप बनाकर मुख्य द्वार से लेकर हर कमरे की देहरी जगमगा दी थी। घर पकवान की खुशबू से तरबतर था। गुझिया,पपड़ी, चकली आदि सब कुछ था। मगर दस वर्षीय उषा को तो चॉकलेट और बंगाली मिठाइयाँ ही पसंद थीं। दादी कहती हैं कि तेरे लिए तेरी पसंद की मिठाई ही आएगी। यह सब तो पड़ोसियों, नाते–रिश्तेदारों, घर आए मेहमानों के लिए हैं। आटे के दीपक कंपाउंड की मुंडेर पर जलकर सुबह तक बुझ गए थे। उषा जॉगिंग के लिए फ्लैट से नीचे उतरी तो उसने देखा पूरा कंपाउंड पटाखों के कचरे से भरा हुआ था। उसने देखा, सफाई करने वाला बबन उन दीपों को कचरे के डिब्बे में न डाल अपनी जेब में रख रहा था। कृशकाय बबन कंपाउंड में झाड़ू लगाते हुए हर रोज उसे सलाम करता था। "तुमने दीपक जेब में क्यों रख लिए उषा ने पूछा । घर जाकर अच्छे से सेंककर खा लेंगे, अन्न देवता हैं न। बबन ने खीसे निपोरे।।

१) संजाल पूर्ण कीजिए। २ अंक

घर मे बने पकवान → [ ] [ ] [ ]

२) निम्नलिखित शब्दोंके समानार्थी शब्द लिखिए । २ अंक

१) दिपक — २) खुशबू — ३) मेहनत — ४) घर —

३) अन्न बैंक की आवश्यकता इस विषय पर अपने विचार लिखिए। २ अंक

कृति १ आ) निम्नलिखित सवालों के जवाब ८० से १०० शब्दों में लिखिए। (३ मे से २) (६ अंक)

१) 'मेरा भला करने वालों' से बचाए इस पाठ के आधार पर ग्राहकों की वर्तमान स्थिति का चित्रण किजिए।

२) 'मुस्कुराती चोट' शीर्षक की सार्थकता स्पष्ट किजिए।

३) 'उषा की दीपावली' लघुकथा द्वारा प्राप्त संदेश लिखिए।

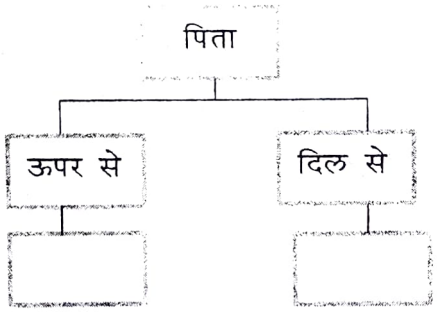
कृति – २ अ) **निम्नलिखित पदयांश पढकर उसपर पूछे गए प्रश्नों के उत्तर लिखिए।** (६ अंक)

माँ मेरी बेवजह ही रोती है
फोन पर जब भी बात होती है
फोन रखने पर मैं भी रोता हूँ।

सख्त ऊपर से मगर दिल से बहुत नाजुक हैं
चोट लगती है मुझे और वह तड़प उठते हैं
हर पिता में ही कोई माँ भी छुपी होती है।

मेरे ऑफिस में महीनों से मेरी दिन की शिफ्ट
तेरे ऑफिस में महीनों से तेरी रात की शिफ्ट
नन्हे बच्चों को तो टुकड़ों में मिले हैं माँ–बाप

१) **आकृती पूर्ण किजिए :** २ अंक



२) **निम्नलिखित शब्दोंके लिंग परिवर्तन किजिए** २ अंक

१) माँ – २) बेटा – ३) बच्चा – ४) पिता –

३) **पालनाघर की आवश्यकता इस विषय पर अपने विचार लिखिए।** २ अंक

कृति – २ आ) **निम्नलिखित मुद्दों के आधार पर 'पंद्रह अगस्त' कविता का रसस्वादन किजिए।** (७ अंक)

१) रचनाकार का नाम
२) 'पसंद की पंक्तीया
३) पसंद आने के कारण
४) कविता का केंद्रीय भाव

अथवा

२) परतंत्रता के संदर्भ मे अपने विचार लिखिए ।

Navkonkan Education Society's
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कृती १ खालील उताऱ्याच्या आधारे सूचनेनुसार कृती करा. (०५)

१. मॅकबेथ आणि किंग लियरच्या नाटकातील संवाद वैशिष्ट्ये (१)



२. पुस्तके कधीच ..... नसतात. (१)

काही पुस्तकं आपल्याला झपाटून टाकतात. अंत:करणात भावनांची प्रचंड खळबळ उडवून देण्याची त्यांच्यात शक्ती असते. अशी पुस्तकं कधी विसरता येत नाहीत. दीर्घकाळ टिकणाऱ्या सुगंधाप्रमाणे ती पुस्तकं मनात दरवळत राहतात. उत्तम साहित्यकृतीचे वाचन करत राहणं यासारखं दुसरं उत्तेजक आणि आनंददायक काही असेल का? मॅकबेथ आणि किंग लेयर या नाटकांतले काही संवाद इतके काव्यात्म, इतके अर्थगर्भ आणि इतके भावस्पर्शी आहेत, की प्रत्येक वाचनाच्या वेळी अधिक उत्कट अनुभूती देत राहतात. अशा वाचनाची नशा और असते. सुखाविषयीच्या माझ्या कल्पनेतून पुस्तकं वगळली तर सारं सुखच संपुष्टात आलं असं म्हणावं लागेल. जवळचे मित्र दुरावतात. ज्यांच्यावर प्रेम केलं त्यांनाही त्या प्रेमाची विस्मृती होते आणि वैराची अग्नी ते पेटवत ठेवतात. हातात आलेला पैसा कसा आणि केव्हा नाहीसा होतो ते कळतही नाही; पण पैसा आणि माणसं यांच्याप्रमाणं पुस्तकं कधीच विश्वासघातकी असत नाहीत. त्यांना स्पर्श करण्याचा अवकाश. भावनांनी आणि विचारांनी ओसंडणारं आपलं अंत:करण ते उघडं करतात. 'माझ्या अंतरंगात त्या थोर लेखकानं साठवलेलं हे भांडार तुझंच आहे. जे आवडेल ते खुशाल घेऊन जा' असंच जणून पुस्तक आपल्याला सांगत असतं. पुस्तकांवर आत्यंतिक प्रेम करणारी माणसं मी पाहिली आहेत. आपल्या कपाटात जिवापाड जपून ठेवलेलं पुस्तक दुसऱ्याला देताना ती अगदी व्याकूळ झालेली असतात.

३. मानवी जीवनातील पुस्तकाचे महत्त्व १० ते १२ ओळींत तुमच्या शब्दांत लिहा. (३)

कृती २ खालील कवितेच्या आधारे सूचनेनुसार कृती करा. (०५)

१. कवयित्रीने जिला विनंती केली ती – [ ] (१)

२. कवयित्रीने यांच्या हाती सांगावा पाठवला आहे– [ ] (१)

पीठ कांडते राक्षसी
तसें कडाडतें ऊन:
प्राणसई घनावळ
कुठे राहिली गुंतून?

दिला पाखरांच्या हातीं
माझा सांगावा धाडून:
ये ग ये ग घनावळी
मैत्रपणा आठवून...

पडवळा –भोपळयांचीं
आळीं ठेविलीं भाजून,
हुडा मोडून घरांत
शेणी ठेविल्या रचून,

बैल झाले ठाणबंदी,
झाले मालक बेचैन,
तोंडे कोमेलीं बाळांचीं
झळा उन्हाच्या लागून,

३. तुमच्या परिसरातील पावसाळयापूर्वीच्या स्थितीचे वर्णन करा. (३)

कृती ३. सूचनेनूसार कृती सोडवा. (१०)

१) खाली दिलेल्या पर्यायातून उपसर्गघटित शब्द ओळखून लिहा. (१)
य) दुकानदार र) भरदिवसा ल) झोपाळू व) गुलामगिरी

२) खाली दिलेल्या पर्यायातून प्रत्ययघटित शब्द ओळखून लिहा. (१)
य) अगणित र) साथीदार ल) अवघड व) बेडर

३) खाली दिलेल्या पर्यायातून अंशाभ्यस्त शब्द ओळखून लिहा. (१)
य) वैचारिक र) भाजीबिजी ल) सामाजिक व) गोडवा

४) खाली दिलेल्या पर्यायातून पूर्णाभ्यस्त शब्द ओळखून लिहा. (१)
य) सादरीकरण र) सूत्रसंचालन ल) तिळतिळ व) समाधान

५) मुळ शब्दशक्ती ..... आहेत. (१)
य) एक र) दोन ल) तीन

६) 'मी वि. स. खांडेकर वाचले' या वाक्यातील शब्दशक्ती लिहा. (१)
य) अभिधा र) लक्षणा ल) व्यंजना

७) सुलभता, सोपेपणा या अर्थाचा काव्यगुण ओळखा. (१)
य) प्रसाद र) माधुर्य ल) ओज

८) 'ओज' या काव्यगुणाचा लक्षण (उदा) ओळखा. (१)
य) सहज अर्थबोध होतो. र) अंगात वीरश्री संचारते ल) शब्द मधुर व सुखद वाटतात.

९) ..... ही शब्दाची पहिली शक्ती आहे. (१)
य) व्यंजना र) लक्षणा ल) अभिधा

१०) घेई छंद मकरंद, प्रिय हा मिलिंद, मधुसेवनानंद स्वच्छंद, हा धुंद. (काव्यगुण ओळखा.) (१)
य) प्रसाद र) माधुर्य ल) ओज

कृती ४ खालीलपैकी कोणतीही एक कृती सोडवा. (०५)

१. सूत्रसंचालन म्हणजे काय ते सांगून सूत्रसंचालनाचे स्वरूप स्पष्ट करा (१५ ते २० ओळींत)

किंवा

२. 'सूत्रसंचालनाच्या पूर्वतयारीसाठी वाचन महत्त्वाचे आहे.' हे १५ ते २० ओळींत स्पष्ट करा.

Date:- 0 2 SEP 2024

Navkonkan Education Society's
D.B.J.College Chiplun
Std- XI Sci/Com/Arts
Unit Test – I 2024 - 25
Sub-English

Roll No.

Time-1½ hrs.

No. Of Pages-2 Marks - 25

Q.1] Read the extract and complete the activities that follow. **12**

Two or three people could stand there on the roof of the world if you cut ice. Twenty or 30 feet below the top, there was enough flat square for two people to sleep. You could pitch one tent there.
The summit is flat on one side and steep on the other. There is snow on the northern side, rocks on the South and East and snowy rock on the West. We stayed on the top a little more than fifteen minutes. We were lucky that there was no gale, or it would have swept us off. My next thought was how to get down safely.
On the descent from the summit, I was walking behind Hillary. I was following him and holding the rope tightly, and my determination was to make sure he descended safely. I must say that the climb down was more difficult and dangerous than the climb up. If you slipped down, you would go into Kangshung glacier and there would be no trace left of you.
More Caution Needed Of course it took less time climbing down, but you needed more "husiar" (caution). When I reached Camp Nine, my first thought was: "Thank God we have been spared an accident, and if up to now there have been no accidents I hope there will be none in future." I had always prayed to God and he had saved me.
At Camp Nine, Hillary and I were in no mood for any talking. We just attended to our own things. We stayed there about half an hour. We boiled some snow to make lemon water and drank it. When we left, we took only our sleeping bags and left everything else behind in the tent. From Camp Nine to Camp Eight, where we spent the night, was an easier job.

A1] State whether the following statements are true or false. **2**

1) Tenzing and Hillary were lucky that there was gale.
2) It took less time while climbing down
3) They both stayed on the top for the whole night.
4) Tenzing hoped that there would be no accidents in future.

A 2] Describe the roof of the world briefly. **2**

A3] Tenzing was very caring towards Hillary. Explain how it gets reflected from the extract. **2**

A 4] Hope is something that keeps us going to achieve something. Write your experience when you hoped and achieved something you wished for. **2**

A 5] Do as directed. **2**

1) He had saved me. (Begin your sentence with I and rewrite)
2) I must say that climb down is more difficult and dangerous than climb up. (Use modal auxiliary showing ability and rewrite)

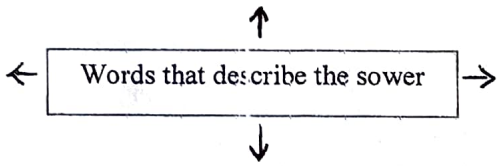
A 6] Match the pairs of synonyms. **2**

'A'	'B'
1) Gale	a) caution
2) Husiyar	b) peak
3) Summit	c) climbing down
4) Decent	d) strong wind

Q.2 A] Read the extract and complete the activities that follow. 10

Sitting in a Porchway cool,
Sunlight, I see, dying fast,
Twilight hastens on to rule.
Working hours have well-nigh past.
Shadows run across the lands:
But a sower lingers still,
Old, in rags, he patient stands.
Looking on, I feel a thrill.
Black and high, his silhouette
Dominates the furrows deep!
Now to sow the task is set.
Soon shall come a time to reap.
Marches he along the plain
To and fro, and scatters wide
From his hands the precious grain;
Muse I, as I see him stride.
Darkness deepens. Fades the light.
Now his gestures to mine eyes
Are august, and strange, his height
Seems to touch the starry skies.

A.1] Complete the following web. 2



A.2] The poet was greatly impressed by the sower. Give reasons. 2

A.3] Write your own experience where you have taken a lot of efforts to achieve something. 2

A.4] Write one example each of the following figures of speech from the extract. 2

i) Personification

ii) Alliteration

A.5] Compose your own poem of four lines with proper rhyme scheme on the topic 'My Work'. 2

Q.2B] Frame a Mind Map on the topic - 'Types of Sports'. 3

Navkonkan Education Society's

D.B.J. College, Chiplun

Date :-05/09/2024 Std- XI Science Roll No. _____

Unit Test: 1, 2024-25

Time:- 1:30 Hrs. Sub:- Agriculture Science and Technology Pages:- 1 Marks:- 25

Note:-

1. All Questions are compulsory.
2. Figures to the right indicate full marks.
3. Answers to each question must be written on the new page.
4. Answers to objective question should be written with whole statement.

Q.1 A) select the appropriate alternative and complete the following statements **04**

1. Acid igneous rocks contain---------- percent silica.
a) 65% b) 55-60% c) 55% d) 70%
2. Wind velocity is measured by using----------instrument.
a) Hygrometer b) Anemometer c) Wind vane d) Sunshine recorder
3. Vertical gardening, most commonly used media is----------
a) Soil b) Sand c) Cocopeat d) Rockwool
4. The brick gravel test is used to determine of seed ----------.
a) Viability b) Vigour c) Moisture d) Temperature

B) Write True or False **03**

1. The rock formed by metamorphism is known as metamorphic rock.
2. Short range forecasting is predicted for more than four weeks period.
3. Productivity in aeroponic is more than hydroponic because of ample aeration in the root zone.

Q.2 Answer in brief (Any four) **08**

1. Name the factors affecting soil fertility.
2. What is weather forecasting?
3. Define rock.
4. Enlist stages of seed multiplication.
5. List out external factors affecting seed germination.

Q.3 Answer the following questions (Any two) **06**

1. Draw and label soil profile.
2. Explain effect of sunlight on crop growth.
3. Write advantages of contract farming.

Q.4 Answer the following questions in detail (Any one) **04**

1. Explain the importance of weather forecasting for farmers?
2. Describe the uses of drones in agriculture.

******

Date:- 04/ 09/2024

Navkonkan Education Society's
D.B.J.College Chiplun
Std. –XI Science Roll No.
Unit Test – 1, 2024 - 25

Time:- 1.30 Hrs. Sub – Mathematics Page No.1 Marks - 25

Section A

Q.1) Select and write correct answer [4]

i)If the angles of a triangle are in the ratio 1:2:3, then the smallest angle in radian is

A) $\frac{\pi}{3}$ B) $\frac{\pi}{6}$ C) $\frac{\pi}{2}$ D) $\frac{\pi}{4}$

ii) The central angle of a sector of circle of area 9π sq.cm is 60°, the perimeter of the sector is

A) π B) $3+\pi$ C) $6+\pi$ D) 6

iii) If w is a complex cube root of unity, then the value of $\omega^{99} + \omega^{100} + \omega^{101}$ is :

A) -1 B) 1 C) 0 D) 3

iv) $\arg(z.\bar{z}) =$.....

A) 1 B) 0 C)2 D)3

Q.2) Answer the following [3]

i)Find the number of sides of a regular polygon if each of its interior angle is 144°.

ii) write conjugate of $\sqrt{-25} + 4$.

iii) If ω is complex cube roots of unity then find ω^{105}.

Section B

Attempt any FOUR [8]

Q.3) Express $(30.6947)^\circ$ in degree, minutes and seconds.

Q.4) The perimeter of a sector of the circle of area 25π sq.cm is 20 cm. Find the area of the sector.

Q.5) A pendulum of length 21cm oscillates through an angle of 36°. Find the length of its path.

Q.6) Prove that $(1+i)^4\left(1+\frac{1}{i}\right)^4 = 16.$

Q.7)Solve the quadratic equation $ix^2 - 4x - 4i = 0$

Q.8) Express $3.e^{\frac{5\pi}{12}i} \times 4.e^{\frac{\pi}{12}i}$ in $a + ib$ form.

Section C

Attempt any TWO [6]

Q.9) Find the angle between hour hand and minute hand of a clock at quarter past five with proper clock diagram

Q.10) Express the complex number $-1 + \sqrt{3}i$ in polar form.

Q.11) If α and β are complex cube roots of unity, prove that

$$(1-\alpha)(1-\beta)(1-\alpha^2)(1-\beta^2) = 9.$$

Section D

Attempt any ONE [4]

Q.12) The angles of a quadrilateral are in A.P. and the greatest angle is double the least. Find angles of the quadrilateral in degree.

Q.13) Find the square root of complex number $2 + 2\sqrt{3}i$.

Navkonkan Education Society's

Date-04/09/2024 | D.B.J College Chiplun | Seat no/ Roll No._____

Std: XI Science

Unit Test 1, 2024-25

Time- 1 1/2 hrs | Sub- Information Technology | page-1 | Max. Marks-25

Note: All questions are compulsory.

Q.1) Fill in the blanks. 5 M

1. _____ is the processed data.
2. Internet is a _____ network connecting millions of computer.
3. A group of 4 bits is called as_____
4. SMTP stands for_____
5. _____ is a set of instructions or programs.

Q.2) Write True or False. 5 M

1. Data means processed information.
2. Set of instructions or programs is called hardware.
3. Closed source software is available freely to copy & modify.
4. Computer architecture refers to how a computer system is designed and how it works.
5. Internet is a set of rules that governs the communication between computers on network.

Q.3) Multiple choice single correct answer. 5 M

1. Following is unit of memory.
   a) gb b) hb
   c) fb d) xb
2. Some recent trends in IT are:
   a) Software developer b) audio/video editor
   C) Cloud computing d) Animator
3. The Primary memory consist of_____
   a)RAM b)Pendrive
   c)Hard disk d) Scanner
4. ROM stands for Read _____ Memory
   a) Only b) One
   c)Original d) Or
5. A group of 8 bits is called as_____
   a)Bit b) byte
   c)gb d) nibble

Q.4) Multiple choice two correct answers. 6 M

1. _____ & _____ are classification of software.
   a)Closed Source Software b) Open Source software c)Application Software
   d)System software e) Driver software
2. Types of computer network are:
   a) LAN b) CAN c) ZAN
   d) WAN e) XAN
3. Types of memory are:
   a) Primary b) RAM c) ROM
   d) Secondary e) Pen drive

Q.5) Answer in brief(any 2) 4 M

1. Write difference between LAN & WAN.
2. Explain ALU & CU of computer system.
3. Difference between Data & Information.
4. Explain Client-Server architecture with diagram.

Date:-03/09/2024 Navkonkan Education Society's Roll No.-

D.B.J.College, Chiplun

XI Unit Test (2024)

Time - 1 ½ hrs Sub-**Chemistry** Pages: - 2 Max.Marks-25

General Instruction: The question paper is divided into four sections.

(1) Section A: Q. No. 1 contains four multiple choice type of questions carrying **One mark** each.
Q. No. 2 contains three very short answer type of questions carrying **One** mark each.

(2) Section B: Q. No. 3 to Q. No.8 contains six short answer type of questions carrying Two marks each.

(3) Section C: Q.No.9 to Q.No.11 contains three short answer type of questions carrying **Three** marks each.

(4) Section D: Q .No. 12 to Q. No. 13 contain two long answer type of questions carrying **Four** marks each.

(5) Use of log table is allowed. Use of calculator is **not** allowed.

(6) Figures to the right indicate full marks

(7) For each **MCQ,** correct answer must be written along with its alphabet.
e.g. (a)……./(b)……./(c)……./(d)……

SECTION – A

Q.No.1. **Select and write most appropriate answer from the given alternatives for the following.** **[04]**

i) Which of the following demonstrate the law of multiple proportions?
a) H_2O, H_2S b) H_2O, H_2O_2 c) HCl, HF d) Na_2S, NaF

ii) Keep odd one out.
a) Thiophene b) Furan c) Tropone **d) Piperidine**

iii) Arsenic is ------
a) metal b) non-metal c) metalloid d) compound

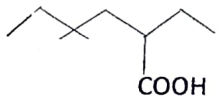
iv) Which of the following acts as nucleophile?
a) H^+ b) NO_2^+ c) $AlCl_3$ d) OH^-

Q.No.2. **Answer the following:** **[03]**

i) Draw the bond line formula of 2,2,4,4-Tetramethylpentane.

ii) Write the SI unit of electric current.

iii) Give the IUPAC name of



SECTION-B

Attempt any FOUR. **[08]**

Q.No.3. Find the formula mass of $CaSO_4$ if atomic mass of Ca=40.1u, S=32.1u & O=16.0 u.

Q.No.4. Distinguish between carbocation &carbanion.

Q.No.5. What is meant by homologous series? Write first four members of homologous series that begins with H_3C-Cl.

Q.No.6. Draw the resonance structure of phenol and Buta-1,3diene.

Q.No.7. State & explain law of conservation of mass.

Q.No.8. Calculate the number of moles & the volume in liters of the 1.6 gm of oxygen at STP.

SECTION-C

Attempt any TWO. [06]

Q.No.9. State & explain Avogadro's law.

Q.No.10. What is hyperconjugation?

Match the following pairs:

Column-I		Column-II
i)	Ketone	a) -OH
ii)	Phenol	b) –O–
iii)	Ether	c) –CO-
iv)	Alcohol	d) Ar-OH

Q.No.11. Define mole. Calculate the number of moles and molecules of acetic acid present in 22 g of it.

SECTION-D

Attempt any ONE. [04]

Q.No.12. Do as directed.

a) Convert 45^0C in ^0F.

b) Find the mass of 1 molecule of oxygen in amu and in grams.

Give an example of element and compound.

Q.No.13. Define isomerism.

Observe the following structures & answer the questions given below-

i) $H_3C\text{-}\underset{\displaystyle OH}{\underset{|}{CH}}\text{-}CH_2\text{-}CH_3$ (ii) $H_3C\text{-}CH_2\text{-}O\text{-}CH_2\text{-}CH_3$

a) What is the relationship between (i) & (ii).

b) Write the IUPAC name of (i)

c) Draw the position isomer of (i).

Roll Number			

XI Science
Div- A, B & C

N. E. Society's

D.B.J. College, Chiplun

Unit Test-1 Examination Date-03-09- 2024

Marks – 25 **Subject- Biology** Time- 1 $\frac{1}{2}$

SECTION – A

Q-1 **Select and write the correct answer.** 5

i) ....., ... Is responsible for famous 'red-tide'.
(a)Paramoecium (b) Amoeba
(c) diatoms (d) Gonyaulax

ii) Cnidoblast or stinging cells are the special feature of .....
(a) Phylum Porifera (b) Phylum Cnidaria
(c) Phylum Ctenophora (d) Phylum Mollusca

iii) ..... is a common flagellated pathogen which causes sleeping sickness.
(a) Archebacteria (b)Paramoecium
(c)Plasmodium (d)Trypanosoma

iv) Which of the following is known as filarial worm?
(a)Ascaris (b)Ancyclostoma (c) Planaria (d)Wuchereria.

v) Tape worm belongs to .....
(a) Phylum Porifera (b) Phylum Cnidaria
(c) Phylum Platyhelminthes (d) Phylum Mollusca

Q-2 Answer the followings. 4

i) How many chambers are their in amphibian heart?

ii) Which is the largest phylum of Non-chordates?

iii) Mention the basic unit of classification.

iv) What is taxidermy?

SECTION-B

Attempt any **THREE** of the following. 6

Q-3 Answer the followings-

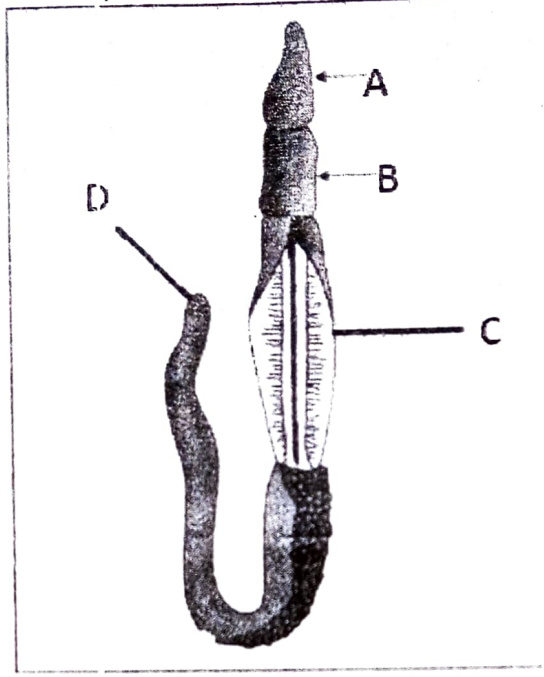
a) Name the anticoagulant found in saliva of Leech.

b) Give the role of leech in Ayurveda?

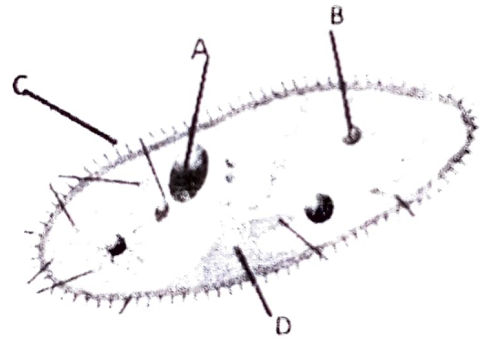
Q-4 Match the followings from Column I and II Column II.

Sr.No.	Column I (Microbes)	Sr.No	Column I (Uses)
1	Lactobacilli	1	Antibiotic production
2	Methanogenic bacteria	2	Fixation of Nitrogen
3	Azotobacter	3	Curdling of milk
4	Streptomyces	4	Biogas production

Q-5 Identify the labels A,B,C and D in given diagram.



Q-6 Identify the labels A,B,C and D in given diagram.



Q-7 Match the followings from Column I and II Column II.

Sr.NO.	Column I (Phylum)	Sr.No	Column I (Features)
1	Echinodermata	1	Organ of Bojanus
2	Mollucsca	2	Colloblast
3	Porifera	3	Water vascular system
4	Ctenophora	4	Choanocytes

SECTION-C

Attempt any **TWO** of the following. 6

Q-8 Give aerial adaptations found in class Aves.

Q-9 Explain the rules followed by Binomial system of Nomenclature with the help of suitable example.

Q-10 i. Give the general characteristics of kingdom Monera.

ii. What are halophytes?

Q-11 Distinguish between Chondrichthyes and Osteichthyes.

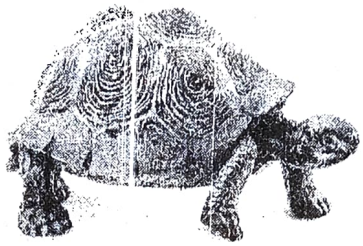
SECTION-D

Attempt any **ONE** of the following. **4**

Q-12 i. Identify the name of given animals.
ii. Mention their respective class.
iii. Write any two special features of given class.



A



B

Q-13 i) What is coenocytic hyphae?

ii) Write a note on- a). Phycomycetes

b) Ascomycetes.

Date-02/09/2024

Navkonkan Education Society's
D.B.J. COLLEGE, CHIPLUN
Std- XI Science Seat No./ Roll No. ------
Unit test – I, 2024-25

Time- 1 ½ hrs. Sub-Physics Pages-1 Marks-25

Section – A

Q.No.1 **Select and write the correct answer:(1 markeach)** 4

i. Dimension of kinetic energy is same as that of ---------
(A) Force (B) Acceleration (C) Work (D) Pressure

ii. For two vectors to be equal, they should have the-------
(A)same magnitude (B) same direction
(C) same magnitude and direction (D) same magnitude but opposite direction

iii. The unit of solid angle is ----
(A)Second (B) Steradian (C) kilogram (D)candela

iv The magnitude of scaler product of two-unit vectors perpendicular to each other is---
(A) zero (B) 1 (C) -1 (D) 2

Q.No.2 **Answer the following in one sentence:(1 mark each)** 3

i What is light year?

ii The magnitude of any Physical quantity can be expressed as A $x10^n$ where 'n' is an integer called the order of magnitude and 'A' is a number. What is the range of 'A'?

iii What is the triangle law of vector addition.

Section – B

Answer the following. (any 4) 8

Q.No.3 Find a unit vector in the direction of the vector $3\bar{\imath} + 4\bar{\jmath}$ 2

Q.No.4 Derive the formula for kinetic energy of a particle having mass 'm' and velocity 'v' using dimensional analysis. 2

Q.No.5 Show that the scalar product of two perpendicular vectors is zero. 2

Q.No.6 In an experiment to determine the volume of an object, mass and density are recorded as $m = (5 \pm 0.15)$ kg and $\rho = (5 \pm 0.2)$ kg m^{-3} respectively. Calculate percentage error in the measurement of volume. 2

Q.No.7 Water is flowing in a stream with velocity 5 km/hr in an easterly direction relative to the shore. Speed of boat is relative to still water is 20 km/hr. If the boat enters the stream heading the north, with what velocity will the boat actually travel? 2

Q.No.8 A large ball 2 m in radius is made up of a rope of square cross section with edge length 4 mm. Neglecting the air gaps in the ball, what is the total length of the rope to the nearest order of magnitude? 2

Section – C

Answer the following. (any two)

Q.No.9 Find the conversion factor between the S.I. unit of energy to C.G.S. unit of energy. 3

Q.No.10 Define the scalar product of two vectors. Stateany two characteristics of scalar product. 3

Q.No.11 In Ohm's experiments, the values of the unknown resistances were found to be 6.12 Ω, 6.09 Ω, 6.22 Ω, 6.15 Ω. Calculate the absolute error, relative error and percentage error in these measurements. 3

Section – D

Answer the following.(any one) 4

Q.No.12 State and prove parallelogram law of vector addition and determine magnitude and direction of resultant vector.

Q.No.13 What is meant by significant figures and order of magnitude. 2
The diameter of a sphere is 2.14 cm. Calculate the volume of the sphere to the correct number of significant figures. 2