XII Science

Unit Test-I

2024-25

नवकोकण शिक्षण संस्था

XII Sci

दिनांक : 5/ 09/2024 डी. बी. जे. महाविद्यालयः, चिपळूणम्
12 कक्ष्या - कला, विज्ञानम्, वाणिज्यम् उपस्थिति क्रमांक:
घटकपरीक्षा (1) -- 2024 - 25
समयः – 1:30 होरा विषयः - संस्कृतम् पृष्ठ – 2 अङ्काः – 25

द्वितीयः विभागः - पद्यम्
(अवबोधनं, शब्दज्ञानं, पृथक्करणम्, अन्वयपूर्तिः)

प्रश्नः 2 अ) पद्यांशं पठित्वा निर्दिष्टाः कृतीः कुरुत। 4

अ 1) अवबोधनम् (3 तः 2) 2

1) वाक्यं पूर्णं लिखित्वा सत्यं वा असत्यम् इति लिखत।
चिन्तनीया प्रतिक्रिया कार्यारम्भे।

2) रेखाङ्कितं पदम् आधृत्य संस्कृतभाषया प्रश्ननिर्माणं कुरुत।
प्रदीप्ते वह्निना गृहे।

3) उचितं वाक्यांशं चित्वा वाक्यं पुनर्लिखत।
बुधैः विद्या ग्राह्या यतः -------
1. विद्या फलदा।
2. विद्या सुलभा।

चिन्तनीया हि विपदामादावेव प्रतिक्रिया ।
न कूपखननं युक्तं प्रदीप्ते वह्निना गृहे ।।५।।
(अनुष्टुप्)

गतेऽपि वयसि ग्राह्या विद्या सर्वात्मना बुधैः ।
यद्यपि स्यान्न फलदा सुलभा साऽन्यजन्मनि ।।६।।

अ 2) शब्दज्ञानम् 2

1) समानार्थकशब्दं चिनुत। - सङ्कटम्, पण्डितः

2) सन्धिविग्रहं लिखत। - विपदामादावेव - ------, ------

प्रश्नः 2 आ) पद्यांशं पठित्वा निर्दिष्टाः कृतीः कुरुत। 6

आ 1) अवबोधनम् 3

1) वाक्यं पूर्णं लिखित्वा सत्यं वा असत्यम् इति लिखत।
विनायकः स्पर्धकान् शिक्षयति।

2) रेखाङ्कितं पदम् आधृत्य संस्कृतभाषया प्रश्ननिर्माणं कुरुत।
कैश्चिदेव निमिषैर् व्यलोकयत ।

3) संस्कृतभाषया पूर्णवाक्येन उत्तरत।
विनायकः किमर्थं गतिं अवर्धयत?

मज्जनोत्थित इतो विनायको नौशयाभिमुखतां गतो जवात् ।
छेत्तुमारभत वीचिशृङ्खलाः स्पर्धकानिव स शिक्षयन् कलाम् ।

कैश्चिदेव निमिषैर् व्यलोकयत् पृष्ठतश्च स निजानुसारिणौ ।
वर्धयंश्च गतिमात्मनस्ततो गोलिकाध्वनिमथाशृणोदपि ।।१४।।

आ 2) शब्दज्ञानम् 3

1) द्वितीयाविभक्त्यन्तपदे चित्वा लिखत।

2) विशेषणे चित्वा लिखत। - विनायकः - ------, ------

3) विरुद्धार्थकशब्दं लिखत। - अभिमुखः, पृष्ठतः

प्रश्नः 2 इ) पद्यांशं पठित्वा निर्दिष्टाः कृतीः कुरुत। 5

इ 1) अवबोधनम् 3

1) उचितं वाक्यांशं चित्वा वाक्यं पुनर्लिखत।
कापुरुषाः वदन्ति यत् ----------।

2) रेखाङ्कितं पदम् आधृत्य संस्कृतभाषया प्रश्ननिर्माणं कुरुत।

नलिनीं गज उज्जहार।

3) चतुष्कोणं पूरयत।

1) कृतः - ------

2) कोषगतः - ------

उद्योगिनं पुरुषसिंहमुपैति लक्ष्मीर्दैवेन देयमिति कापुरुषा वदन्ति ।
दैवं निहत्य कुरु पौरुषमात्मशक्त्या यत्ने कृते यदि न सिध्यति कोऽत्र दोषः

(वर

रात्रिर्गमिष्यति भविष्यति सुप्रभातं भास्वानुदेष्यति हसिष्यति पङ्कजश्रीः ।
इत्थं विचिन्तयति कोषगते द्विरेफे हा हन्त हन्त नलिनीं गज उज्जहार ।।८।

2

इ 2) पृथक्करणम् - स्तम्भपूरणं कुरुत।

	कः	किं करिष्यति?
1)	सुप्रभातं	--------।
2)	पङ्कजश्रीः	--------।
3)	रात्रिः	--------।
4)	भास्वान्	--------।

(मञ्जूषा - हरिष्यति, गमिष्यति, उदेष्यति, भविष्यति, हसिष्यति, विचिन्तयिष्यति)

प्रश्नः. 2 ई) पद्यांशं पठित्वा अन्वयं लिखत। अथवा माध्यमभाषया सरलार्थं लिखत। 10

पक्षे सिते भाद्रपदे च मासे गृहे गृहे यत्र तिथौ चतुर्थ्याम् ।
प्रवर्तते मृण्मयमूर्तिपूजामहोत्सवः सिद्धिविनायकस्य ।।१०।

निर्वर्त्य पूजाविधिमायुधानां नीराजनां वाजिविभूषणं च ।
व्रजन्ति सायं विजयादशम्यां सीमानमुल्लङ्घितुमत्र लोकाः

अन्वयः - यत्र ------- मासे ------ पक्षे चतुर्थ्यां ------ च सिद्धिविनायकस्य मृण्मयमूर्तिपूजामहोत्सवः गृहे गृहे ------।

अन्वयः - अत्र ------- पूजाविधिम् ------- नीराजनां वाजिविभूषणं च ------

विजयादशम्यां ------ सीमानम् उल्लङ्घितुं व्रजन्ति।

2) कस्त्वं शूली मृगय भिषजं नीलकण्ठः प्रियेऽहं
केकामेकां कुरु पशुपतिर्नैव दृश्ये विषाणे।
स्थाणुर्मुग्धे न वदति तरुर्जीवितेशः शिवायाः
गच्छाटव्यामिति हतवचाः पातु वश्चन्द्रचूडः।।

अन्वयः - कः ------ शूली। भिषजं मृगय। प्रिये ------ नीलकण्ठः। ------ केकां कुरु। पशुपतिः। विषाणे ------ न दृश्ये। ------ स्थाणुः। तरुः ------ वदति। शिवायाः ------। अटव्यां गच्छ इति। हतवचाः चन्द्रचूडः ------ पातु।

3) वासः प्रधानं खलु योग्यताया वासोविहीनं विजहाति लक्ष्मीः।

पीताम्बरं वीक्ष्य ददौ स्वकन्यां दिगम्बरं वीक्ष्य विषं समुद्रः।।

अन्वयः - ------ वासः प्रधानं खलु। ------ वासोविहीनं विजहाति। ------- पीताम्बरं वीक्ष्य ------ ददौ। दिगम्बरं

वीक्ष्य विषं ददौ।

Date:- 05/09/2024 | Navkonkan Education Society's
D.B.J.College Chiplun
Std. –XII Arts/Com/Sci | Roll No. | | | |
Unit Test – 1, 2024 - 25
Time:- 1.30 Hrs. | Sub – Hindi | Page No.2 | Marks - 25

प्रश्न १ निम्नलिखित पठित गद्यांश पढ़कर दी गई सूचनाओं के अनुसार कृतीयाँ किजिए :- (6)

इन्हीं विचारों में डूबा हुआ बच्चा देर तक रोता रहा | इतने में खड़ाऊँ पहने हुए , हाथ में माला लिए हुए , रामनाम का जप करते हुए बाबा हरिदास कुटिया के अंदर आए और बोले – " बेटा ! शांति करो ! शांति करो !"

बैजू उठा और हरिदास जी के चरणों से लिपट गया | वह बिलख- बिलखकर रोता था और कहता था – " महाराज ! मेरे साथ अन्याय हुआ है | मुझपर वज्र गिरा है ! मेरा संसार उजड गया है | मै क्या करूँ ? मै क्या करूँ ? "

हरिदास बोले – "शांति , शांति |"

बैजू – "महाराज ! तानसेन ने मुझे तबाह कर दिया ! उसने मेरा संसार सूना कर दिया !"

हरिदास – "शांति , शांति |"

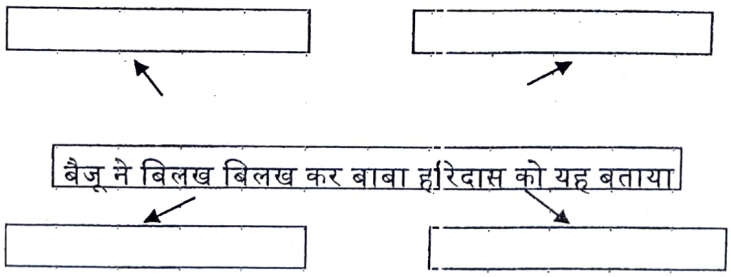
बैजू ने हरिदास के चरणों से और भी लिपटकर कहा – " महाराज शांति जा चुकी | अब मुझे बदले की भूख है | अब मुझे प्रतिकार की प्यास है | मेरी प्यास बुझाइए | "

हरिदास ने फिर से कहा – "बेटा ! शांति , शांति |"

बैजू ने करुणा और क्रोध की आँखों से बाबा जी की तरफ देखा | उन आँखों मे आँसू थे और आहें थीं और आग थी | जो काम जबान नहीं कर सकती , उसे आँखे कर देती हैं , और जो काम आँखों भी नहीं कर सकतीं उसे आँखों के आँसू कर देते हैं | बैजू ने ये दो आखिरी हथियार चलाए और सिर झुकाकर खड़ा हो गया |

हरिदास के धीरज की दीवार आँसुओं की बौछार न सह सकी और काँपकर गिर गई | उन्होंनें बैजू को उठाकर गले से लगाया और कहा – " मैं तुझे वह हथियार दूँगा , जिससे तू अपने पिता की मौत का बदला ले सकेगा | "

(1) संजाल पूर्ण किजिए : (2)



(2) समानार्थी शब्द लिखिए (गद्यांश मे आए हुए) (2)

(1)दुनिया _____ (2) पाँव _____

(3)बरबाद _____ (4)अंतिम _____

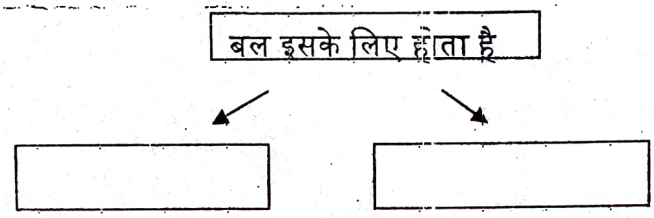
(3) ' गुरु के बिना ज्ञान नही मिलता ' इस कथन के संबंध में अपने विचार ४० से ५० शब्दों में लिखिए | (2)

प्रश्न २ निम्नलिखित पद्यांश पढ़कर दी गई सूचनाओं के अनुसार कृतीयाँ कीजिए : (6)

बल नहीं होता सताने के लिए ,
वह है पीड़ित को बचाने के लिए |
बल मिला है तो बल बनो सबके ,
उठ पड़ो न्याय दिलाने के लिए |

जिसको मंजिल का पता रहता है ,
पथ के संकट को वही सहता है |
एक दिन सिद्धी के शिखर पर बैठ,
अपना इतिहास वही कहता है |

(1) कृति पूर्ण कीजिए : - (2)



(2) निम्नलिखित शब्दों के उपसर्गयुक्त शब्द तैयार कर उनका अर्थपूर्ण वाक्यों में प्रयोग कीजिए: - (2)
(1) बल (2) न्याय

(3) 'मानव सेवा ही सच्ची सेवा है' इस विषय पर ४० से ५० शब्दों में अपने विचार लिखिए | (2)

प्रश्न ३ निम्नलिखित दो प्रश्नों के उत्तर लगभग ८० से १०० शब्दो मे लिखिए : - (6)

(1) निराला जी का अतिथ्य भाव ८० से १०० शब्दों में लिखिए | (3)

(2) ' आदर्श बदला ' कहानी के शीर्षक की सार्थकता स्पष्ट कीजीए | (3)

प्रश्न ४ निम्नलिखित मुद्दो के आधार पर ' सच हम नही : सच तुम नही ' कविता का 100 से 120 शब्दों में रसास्वादन कीजिए | (7)

(1) रचना का शीर्षक -
(2) रचनाकार -
(3) कविता की केंद्रीय कल्पना -
(4) प्रतिक विधान -
(5) कल्पना -
(6) पसंद की पंक्तियों -
(7) कविता पसंद आने का कारण -

Navkonkan Education Society's
D.B.J. College, Chiplun
Std- XII Arts/Com/Sci.
Unit Test – 1, 2024-25
Sub- **Marathi**

Date:-04/09/2024
Time- 1½ hrs.
Seat No./Roll No.
Pages:- 01
Max.Marks- **25**

कृती — १) सूचनेप्रमाणे कृती सोडवा.

१. या कारणामुळे अपघात होतात———————————— (२)

२. वाहनाचा वेग अनिवार झाला तर — (२)

वाहन हे वेळ वाचवण्यासाठी असते. ते वेळ घालवण्यासठी नसते. त्याचा वेग बेताचा असणे अगत्याचे असते. माणसे चालू आणि पळूही शकतात; पण रस्त्याने कोणी चालण्याऐवजी पळू लागला तर त्याचे कौतुक करावे का? अपेक्षित स्थळी वेळेवर पोचता येईल, अशा बेताने वाहने चालवण्याऐवजी उगाचच भरधाव वेगाने चालवण्यात औचित्य ते कोणते?

वाहनाचा वेग वाढला म्हणजे त्याच्यावरचा ताबा कमी होतो. पुढचे वाहन मागे टाकून पुढे जाण्याच्या हव्यासामुळे अनेक अपघात होतात. रात्रीच्या वेळी विलक्षण वेगाने धावणारी गाडी ही शतराणी म्हटली जाते. रात्री भरधाव वेगाने प्रवास करून पार पाडावीत एवढी महत्त्वाची कामे दरवेळी असतात का? वाहनाचा वेग अनिवार झाला, तर चित्ताची व्यग्रता वाढते. डोळ्यांवर, मनावर, शरीरावर ताण पडतो. शरीरभर अनावश्यक स्पंदने निर्माण होतात.

३. 'वाहन हे वेळ वाचवण्यासाठी असते. ते वेळ घालवण्यासठी नसते.' हे विधान तुमच्या शब्दांत स्पष्ट करा. (४)

किंवा

३. वाहनाचा अतिवापर शरीराबर परिणामकारक ठरतो. या विषयी तुमचे मत सोदाहरण स्पष्ट करा.

कृती — २) खालील कवितेच्या आधारे सूचनेप्रमाणे कृती करा.

१. 'कष्टानंतर समृध्दीच्या रूपात मागे उरेन' या अर्थाची काव्यपंक्ती शोधून लिहा.———————— (२)

२. पुढील शब्दांसाठी काव्यात आलेले शब्द लिहा. (२)

बियाणं — [ ] पाणी ओढणे — [ ]

ऊस लावते, बेणं दाबते
बाई दाबते
नाही बेणं ग, मन दाबते
बाई दाबते
कांड्या–कांड्यांनी, संसार सांधते
बाई सांधते
रोज मातीत, मी ग नांदते
बाई नांदते.

उन्हातान्हात, रोज मरते
बाई मरते
हिरवी होऊन, मागं उरते
बाई उरते
खोल विहिरीचं, पाणी शेंदते
बाई शेंदते
रोज मातीत, मी ग नांदते
बाई नांदते.

३. शेतकरी स्त्रियांच्या कष्टमय जीवनाचे वर्णन कवितेच्या आधारे लिहा. (४)

किंवा

३. तुमच्या परिसरातील कष्टकरी महिलेचे वर्णन करा.

कृती — ३) सूचनेप्रमाणे कृती सोडवा.

अ) वाक्य प्रकार ओळखा (प्रश्नार्थी, विधानार्थी, उद्गारार्थी, आज्ञार्थी.) (२)

१. जीवन हे दशदिशांना विभागलेले आहे.
२. किती सुंदर देखावा आहे हा !

ब) पुढील शब्दांचा समास ओळखा. (२)

१. क्रीडांगण २. नवरात्र

क) वाक्य रूपांतर करा. (३)

१. सकाळी फिरणे आरोग्यास हितकारक आहे. (नकारार्थी करा)
२. किती सुंदर आहे ही पाषाणमूर्ती ! (विधानार्थी करा)
३. हा आनंद सर्वत्र असतो. (प्रश्नार्थी करा)

क)वाक्प्रचारांचा अर्थ लिहून वाक्यात उपयोग करा. (२)

१. अगतिक होणे.———— २. पारखे होणे ————

be his
be his

Date:- 0 2 SEP 2024 | Navkonkan Education Society's D.B.J.College Chiplun Std. XII Unit Test 1- 2024 | Roll No. | | | |

Time:- 1.1/2 Hrs. | Sub –English | Marks - 25

Q.1 Read the following extract and complete the activities given below. 12

Soapy left his bench and strolled out of the square and across the level sea of asphalt, where Broadway and Fifth Avenue flow together. Up Broadway he turned, and stopped at a luxurious cafe.

Soapy had confidence in himself from the lowest button of his vest upward. He was shaven, and his coat was trim and his neat, black bow had been presented to him by a lady missionary on Thanksgiving Day. If only he could reach a table in the restaurant unsuspected, success would be his. The portion of him that would show above the table would raise no doubt in the waiter's mind. A roasted mallard duck, thought Soapy, would be about the thing with a bottle of wine and then some cheese, a cup of coffee and a cigar. One dollar for the cigar would be enough. The total would not be so high as to call forth any extreme of revenge from the cafe management; and yet the meat would leave him filled and happy for the journey to his winter island.

But as Soapy set foot inside the restaurant door, the head-waiter's eye fell upon his tattered trousers and decadent shoes. Strong and ready hands turned him about and conveyed him in silence and haste to the side-walk and averted the ignoble fate of the menaced mallard.

Soapy turned off Broadway. It seemed that his route to the coveted island was not to be an easy one. Some other way of entering the limbo must be devised.

A -1 Complete the following sentences (2)

I) This is where Soapy stopped at_____ .

II) This had been a gift to soapy_____.

III) This is what soapy wanted to drink_____.

IV) This is what the head waiter noticed_____.

A-2 Choose two sentences that appropriately mention the theme of the extract (2)

I)The extract refers to the daily routine of Soapy.

II) The extract throws light on the attempt of Soapy to go to winter island.

III) The extract depicts the likeness of Soapy about food items in restaurant.

IV) The extract describes Soapy's plan to find in the trap of police.

A - 3 Give reason and complete the following sentences. (2)

I)Soapy had confidence in himself because _____.

II) The head waiter of the luxurious cafe did not allow Soapy to enter because _____.

A - 4 Write an incident in which you did something wrong and repented for it later. (2)

A - 5 Language Study. (Do as directed) (2)

Choose the correct alternative.

I) If only he could reach a table in the restaurant unsuspected, success would be his. (Rewrite using unless)

a)Unless he could reach a table in the restaurant unsuspected, success would be his.

b) Unless he could not reach a table in be the restaurant unsuspected, success would not be his

c) Unless he could not reach a table in the restaurant unsuspected, success would be his.

d) Unless he could reach a table in the restaurant unsuspected, success would not be his.

II) Some other way of entering the limbo must be devised. (Replace the modal auxiliary showing advise)

a)Some other way of entering the limbo shouldn't be devised.
b)Some other way of entering the limbo will be devised
c) Some other way of entering the limbo must and not be devised
d) Some other way of entering the limbo should be devised

A-6 Vocabulary (2)
Match the following words in column 'A' with their meanings in column 'B'

A	B
1) Strolled	a) Border place between heaven and hell
2) Decadent	b) Walked in a leisurely way
3) Limbo	c) Old and worn out
4) Coveted	d) Very hard and torn
	e) Greatly desired

Q.2 Read the following extract and complete the activities give below 10

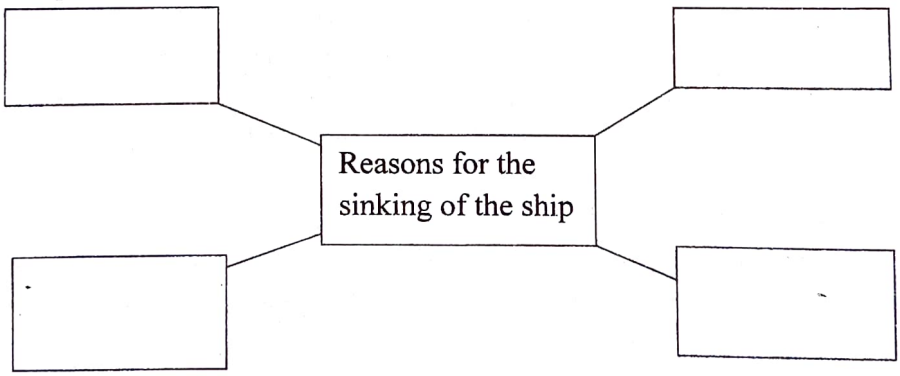
'Canst hear', said one, 'the breakers roar?
For methinks we should be near the shore'.
'Now where we are I cannot tell,
But I wish I could hear the Inchcape Bell'.

They hear no sound , the swell is strong;
Though the wind hath fallen they drift along,
Till the vessel strikes with a shivering shock,-
'O Christ! It is the Inchcape Rock!'

Sir Ralph the Rover tore his hair;
He curst himself in his despair;
The waves rush in every side,
The ship is sinking beneath the tide

But even in his dying fear
One dreadful sound could the Rover hear,
A sound as if with the Inchcape Bell,
The Devil below was ringing his knell.

A1 Complete the following web about the reasons for the sinking of the ship. 02



A-2 Explain the danger implied in the given lines (2)
"They hear no sound, the swell is strong; Though the wind hath fallen they drift along,"

A-3 'Evil cannot go unpunished in this world" write your opinion on this in about 50 words (2)

A-4 Poetic Device. (2)
Name and explain the figure of speech used in the following line-
"One dreadful sound could the Rover hear'

A-5 Poetic Creativity. (2)
Compose 4 lines of your own on 'The Sea'

Q.3 Mind Mapping (3)
Prepare a mind map on the topic 'Types of communication' using your own ideas.

Navkonkan Education Society's

D.B.J. College, Chiplun

Date :-05/09/2024 Std- XII 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. Gram leaves contains----------acid.
a) HCN b) Carbonic c) Acetic d) Malic
2. Banana is propagated by----------
a) Bulb b) Tubers c) Suckers d) Cutting
3. Tissue culture is also known as----------
a) In-vitro culture b) Totipotency c) G 9 d) Coorg mandarin
4. A flower containing both stamens and pistil is a ----------.
a) Staminate flower b) Pistilate flower c) Perfect flower d) none

B) Write True or False **03**

1. A flower containing both stamens and pistil called perfect flower.
2. Oil content in groundnut seed varies from 45-55%.
3. Bulbils are normal flowers.

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

1. Name any four varieties of soyabean.
2. Write the signs of maturity in mango crop.
3. Write the economic importance of sugarcane.
4. Draw diagram of typical flower.
5. Give the advantages of plant tissue culture.

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

1. Write on tagarni of sugarcane.
2. Describe harvesting of groundnut.
3. Define parthenogenesis and give its causes.

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

1. Define asexual propagation and give its advantages.
2. Write cultivation of wheat on the following points.
   a) Botanical name
   b) Uses
   c) Soil
   d) Harvesting and yield

******

D.B.J.College, Chiplun

Date- 04/09/2024 | STD- XII Science | Seat No /Roll No-_____

Unit Test -I, 2024-25

Time – 1 ½ hrs | Subject – I.T. | Pages -2 | Max. Marks - 25

Note : All questions are compulsory.

Q.1) Fill in the blanks. **(06)**

1. ……tag is used by search engine to search information that is provided with the webpage.
2. …… contains one or more declarations separated by a semicolon.
3. ……attribute specifies a regular expression to check the input values.
4. MPEG stands for……
5. In mage map,……regions are called as' hotspots'.
6. HTML5 has additional controls which can be used for…….purpose.

Q.2) State TRUE or FALSE. **(05)**

1. 'Usemap' is a special attribute used in <map> for client side image mapping.
2. List items in unordered list are marked with bullets.
3. Static positioning in CSS, is by-default position for html elements.
4. <source> is used to specify multiple media resources for media elements.
5. Shared type of web hosting is giving domain name to your website

Q.3) Multiple Choice Single Answer. **(05)**

1. The valid value of 'display' property in css is-

   a)inline b)left c)right d)absolute positioning
2. Which of the following selector is used as 'wildcard character'?

   a) Group b) Class c) Universal d)ID
3. ….style sheet is generally used when you want to make changes on multiple pages.

   a) Inline b) Internal c) External d) Embedded
4. ……attribute of <input> specifies that an input field is required.

   a) Autofocus b) Disabled c) Required d) Placeholder
5. <input type="……"> defines control for entering week and year control.

   a) week b) year c) date d)time

Q.4 **Write answers in short.** (04)

1) Explain Group selector with an example

2) Explain Unordered list with an example.

3) Explain concept website hosting.

Q.5 **Write html code.** (05)

Write html5 code with css such that-

1) Write text "DBJ College, chiplun" as heading with background color blue and font Helvetica.

2) Insert text boxes for name, age and make them mandatory field.

3) Insert drop down list for subject selection.

4) Insert buttons for submission and to cancel the form.

5) Background colour of the page must be cyan.

x-x-x-x-x-x-x-x-x-x-x-x-

06-29

Date:-04/09/2024

Navkonkan Education Society's
D. B. J. College, Chiplun
Std. – XII Sci.
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 the correct answer of the following : (4)

I. If $A=\begin{bmatrix}0 & 5\\ 4 & 0\end{bmatrix}$ & $A^{-1} = K\,A$, then K= _____

A) $\frac{1}{10}$ B) $\frac{1}{20}$ C) 10 D) 20

II. If the mean and variance of Binomial distribution are 18 and 12 resp. then value of n is_____

A) 36 B) 54 C) 18 D) 27

Q2 Answer the following : (3)

I. Write the dual of the following:
$(p \wedge t) \vee (c \wedge \sim q)$

II. State the following matrix is invertible or not
$\begin{bmatrix}\cos\theta & \sin\theta\\ -\sin\theta & \cos\theta\end{bmatrix}$

III. Given X ~B (n,p), If n= 10, E(x)=5, find P

Section-B

Attempt any four: (8)

Q3 Write the negation of the following statements:

I. Some triangles are equilateral triangles.

II. $\forall x \in N$, $2x+1$ is odd

Q4 Find cofactors of the elements of matrix
$A=\begin{bmatrix}1 & 2\\ 3 & 4\end{bmatrix}$

Q5 Given below is the probability distribution of X

X	-3	-1	0	1	3
P(X=x)	2K	K	3K	5K	K

Find value of K.

Q6 Convert $\begin{bmatrix}1 & -1\\ 2 & 3\end{bmatrix}$ into an identity matrix by suitable row transformations.

Q7 Find K, if the following function is the p.d.f. of continuous r. v. x
$f(x)= Kx^2(1-x)$, $0<x<1$
$=0$, Otherwise

Q8 Write the converse and inverse of the following statement:
A family becomes literate if the women in it are literate.

Section-C

Attempt any two: (6)

Q9 Construct the switching circuit of the Following:
$(\sim p \wedge q) \vee (p \wedge \sim r)$

Q10 For the following p.d.f. of r.v.x, find p(x<1):
$f(x)=\frac{x+2}{18}$, $-2<x<4$
$=0$, Otherwise

Q11 If a fair coin is tossed 10 times, find the probability of getting exactly six heads.

Section-D

Attempt any one: (4)

Q12 Solve the following equations by method of reduction.
$2x - y + z = 1,\ x + 2y + 3z = 8,\ 3x + y - 4z = 1$

Q13 Find expected value and variance of X, where X is number obtained on the uppermost face when a fair die is thrown.

XII Science
Div- A, B & C

Roll Number

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 from the following multiple choice of questions:** [5]

i The non-symbiotic N-fixing microorganism is -----
(a) Azotobacter. (b) Anabaena
(c) Rhizobium (d) Frankia.

ii Which cells of testis nourish the developing sperm?
(a) Interstitial cells (b) Leydig's cells
(c) Germinal epithelium (d) Sertoli cells

iii The famous wine of Goa called Fenny is fermented product of --------- part of Cashew nut plan
(a) Fleshy petals. (b) Fleshy pedicel
(c) Fruits (d) Seeds.

iv During sewage treatment process the **Flocs** are formed during --------- treatment.
(a) Preliminary. (b) Primary
(c) Secondary (d) Tertiary.

v During development of female gametophyte from MMC in Angiosperms ---------- divisions occur.
(a) 1 meiosis followed by 2 mitosis. (b) 1 meiosis followed by 3 mitosis.
(c) 1 meiosis followed by 1 mitosis. (d) 2 meiosis followed by 2 mitosis..

Q.2 **Answer the following questions.** [4]

i What is Parthenocarpy?

ii Define the term Biofortification.

iii Write the site of fertilization in human being.

iv Which is the high yielding hybrid variety of wheat?

Section –B

Attempt any THREE of the followings : - (Question No. 03 to 07) [6]

Q. 3 Enlist the floral adaptations shown by entomophilous flowers.

Q. 4 Sketch and label unfertilized Ovum.

Q. 5 i) Give the composition of Biogas.
ii) Enlist any two uses of biogas.

Q. 6 Match the following in columns A and columns B.

	Column - A		Column - B
a	Aspergillus niger	i	Acetic acid (Venegar)
b	Acetobactor aceti	ii	Vitamin B_2
c	Neurospora gossypii	iii	Vitamin B_{12}
d	Pseudomonas nitrificans	iv	Citric acid

Q.07 Give various methods of Fish preservation

Section –C

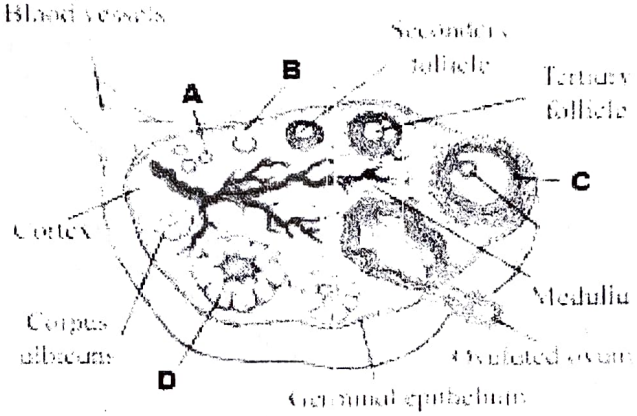
Attempt any Two of the followings : - (Question No. 08 to 11) **[06]**

Q. 08 Give an account of accessory male reproductive glands.

Q. 09 Explain any three out breeding devices in which self pollination is avoided to achieve cross pollination.

Q. 10 i- Define double fertilization in Angiosperms.
ii- Explain the following terms with respect to double fertilization
a) Porogamy b) Siphanogamy.

Q. 11 i- Identify the labels A and D in given diagram.
ii- Name the structures which secrete estrogen and Progesterone.

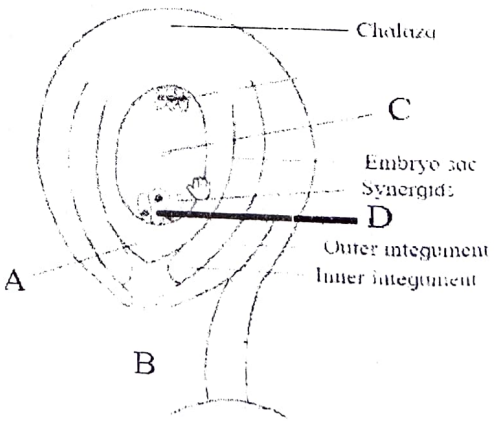


Section –D

Attempt any ONE of the followings : - (Question No. 12 to 13) **[04]**

Q. 12 Explain the four phases of Menstrual cycle considering following points.
a) Changes in uterus and ovary with concerned hormones.
b) Period

Q. 13 **a** - Identify the parts of anatropous ovule **B & C** in the given diagram.
b - Which type of ovule is given in the diagram
c – Name the first cell of embryo sac.



Navkonkan Education Society's
D.B.J.College, Chiplun
Std- XII Science

Date:- 03 /09/2024 Seat No./Roll No._____

Unit Test – 1 , 2024-25

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

General Instructions: 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 four 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 alphabet.
e.g. (a)……/(b)……/(c)……/(d)……

Section – A

Q.1 **Select and write the correct answer:** **[04]**

i. A solution becomes unsaturated when ……
a) Ionic product = Solubility product b) Ionic product < Solubility product
c) Ionic product > Solubility product d) Ionic product ≥ Solubility product

ii ……of the following reactants undergo Williamson's reaction.
a) R–O–R + H–I → b) R–ONa + R–X →
c) R–OH + H_2SO_4 → d) R–CHO + H_2O →

iii Conjugate acid of $H_2PO_4^-$ is ……
a) PO_4^{3-} b) H_3PO_4 c) HPO_4^- d) HPO_4^{2-}

iv For the preparation of Bakelite resin …….is used.
a) Ethanol b) Diethyl ether c) Phenol d) Ethanal

Q.2 **Answer the following:** **[03]**

i Draw the structure of Pyrogallol.
ii How many moles of alcohols consumed by Phosphorus trichloride ?
iii State common ion effect.

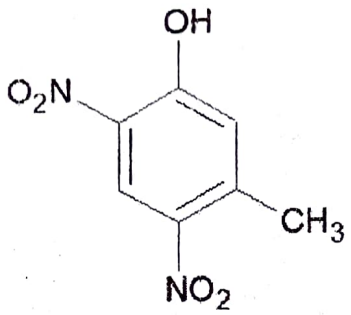
Section – B

Attempt any Four: **[08]**

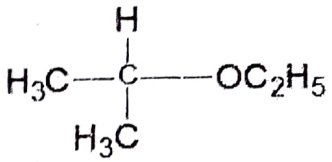
Q.3 How is carbolic acid prepared from Benzene sulfonic acid?
Q.4 Explain the nature of aqueous solution of Copper sulphate.
Q.5 Distinguish between alcohol and phenol.
Q.6 Derive the expression of Ostwald's dilution law in case of weak base.

Q.7 Write the IUPAC names of the following .

a)



b)



Q.8 How are the following compounds prepared using Grignard's reagent

a) Propan-1-ol b) 2-methylpropan-2-ol

Section – C

Attempt any Two: [06]

Q.9 Write the mechanism of acidic buffer.

Q.10 The pH of monobasic acid is 4.3 in it's 0.02M solution. Calculate it's dissociation constant.

Q.11 Write the mechanism of acidic dehydration of ethanol to ether.

Section – D

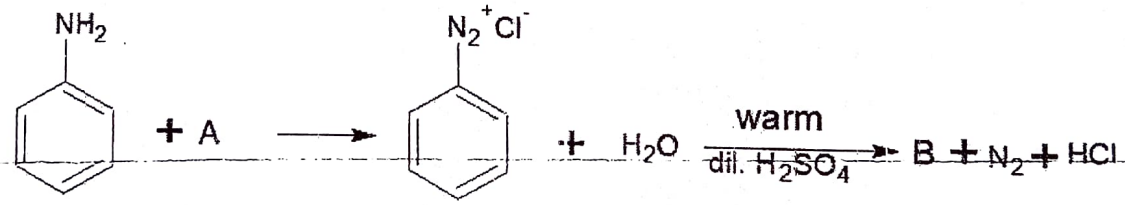
Attempt any One: [04]

Q.12 i) Derive the relationship between pH and pOH.

ii) Write the equation of Friedel-Craft's alkylation reaction of anisole.

Q.13 i) Write expression for solubility and solubility product for the following sparingly soluble salts a) Aluminium Hydroxide b) Lead bromide.

ii) Identify A and B in the following reaction



Date:- 02/09/2024

Navkonkan Education Society's
D.B.J.College Chiplun
Std. –XII Science Roll No.
Unit Test – 1, 2024 - 25
Time:- 1.30 Hrs. Sub – Physics Page 5 - 2 Marks - 25

Section – A

Q.1 Select and write the correct answer:(1 marks each) 4

i. The ratio of torque and moment of inertia is equal to
(A) Linear velocity (B) Linear acceleration
(C) angular velocity (D) angular acceleration

ii. The mean kinetic energy of a gas at 300 K is 100 J. The mean kinetic energy of a gas at 450 K is equal to
(A) 100 J (B) 150 J (C) 300 J (D) 450 J

iii If the charge on the condenser of 10μF is doubled, then the energy stored in it becomes----
(A) zero (B) high potential
(C) half the initial energy (D) four times the initial energy

iv Which of the following produces uniform electric field?
(A) point charge (B) linear charge
(C) two parallel plates
(D) charge distributed on circular plate

Q.2 Answer the following 3

i State the formula giving relation between electric field intensity and potential gradient.

ii If mass as well as radius of gyration of the body are doubled, then what is the change in its moment of inertia?

iii Write ideal gas equation for mass of 7 gram of nitrogen.

Section – B

Answer the following(any 4) 8

Q.3 Define athermanous and diathermanous substance

Q.4 State and prove principle of conservation of momentum

Q.5 Calculate the energy radiated in one minute by a black body of surface area 100 cm^2, when it is maintained at 227^0C.

Q.6 An infinite line charge produces a field of 9×10^4 N/C at a distance of 2 cm. Calculate the linear charge density.

Q.7 The kinetic energy of uniform rotating disc is 1000 J. Calculate its momentum of inertia if it rotates with a frequency of 180 rpm.

Q.8 Obtain an expression for equivalent capacitance of two capacitors C_1 and C_2 connected in series.

Section – C

Answer the following. (any two) 6

Q.9 What is emissivity? State and prove Kirchhoff's law of heat radiation.

Q.10 Define conical pendulum. Derive an expression for the angle made by the stream of conical pendulum with the vertical.

Q.11 A small particle carrying a negative charge of 1.6×10^{-19} C is suspended in equilibrium between two horizontal metal plates 10 cm apart, having a potential difference of 4000 volts across them. Find the mass of the particle

Section – D

Answer the following. (any one) 4

Q.12 Derive an expression for pressure exerted by a gas on the basis of kinetic theory of gases.

Q.13 Derive an expression for energy stored in a capacitor.

A parallel plate air condenser has a capacity of 20 μF. What will be the new capacity if the distance between two plates is doubled?