Date:-	Roll No.			
0 2 NOV 2023	Navkonkan Education Society's			
	D.B.J. College Chiplun			
	XII Terminal Examination 2023-24			
Time:-2.30 Hrs.	Sub- English Pages-07			Mark :- 50

Important Instruction:

1) *Each activity has to be answered in complete sentences. One word answer will not be given credit. Just the correct activity number written in case of options will not be given credit.*
2) *Web diagrams, flow charts, tables etc. are to be presented exactly as they are with answers.*
3) *In point 2 above, just words without the presentation of the activity format/design, will not be given credit. Use of colour pencils/pens etc. is not allowed. (Only blue/black pens are allowed).*
4) *Multiple answers to the same activity will be treated as wrong and will not be given any credit.*
5) *Maintain the sequence of the section/Question Nos/Activities throughout the activity sheet.*

SECTION-1: PROSE
(Reading for Comprehension and Language Study)

Q.1. (A) Read the following extract and complete given activities: (12) (16)

He had left his village without any previous thought or plan. If he had continued there he would have carried on the work of his forefathers namely, tilling the land, living, marrying, and ripening in his cornfield and ancestral home. But that was not to be. He had to leave home without telling anyone, and he could not rest till he left it behind a couple of hundred miles. To a villager it is a great deal, as if an ocean flowed between.

He had a working analysis of mankind's troubles: marriage, money, and the tangles of human ties. Long practice had sharpened his perception. Within five minutes he understood what was wrong. He charged three pies per question. never opened his mouth till the other had spoken for at least ten minutes, which provided him enough stuff for a dozen answers and advices. When he told the person before him, gazing at his palm, "In many ways you are not getting the fullest results for your efforts," nine out of ten were disposed to agree with him. Or he questioned "Is there any woman in your family, maybe even a distant relative who is not well disposed towards you?" Or he gave an analysis of character: "Most of your troubles are due to your nature. How can you be otherwise with Saturn where he is? You have an impetuous nature and a rough exterior." This endeared him to their hearts immediately, for even the mildest of us loves to think that he has a forbidding exterior.

A.1. Rewrite the following sentence and state whether they are 'True' or 'False': (2)

(i) With proper planning and previous thought he had left his village.

(ii) He had a working analysis of mankind's troubles.

(iii) He was unable to understand what was wrong within five minutes.
(iv) He allows the other to speak for at least ten minutes so that he can get enough stuff for predicting future.

A.2. Complete the following: (2)

The astrologer had become efficient in his profession because……

(i) He had a working analysis of …… .
(ii) Long practice …… .
(iii) Within five minutes…… ..
(iv) Never opened his mouth ……

A.3. 'This endeared him to their hearts immediately.' (2)

Explain the statement in about 50 words

A.4. In the age of modern 'science and technology' do you believe in astrology /astrologer. Give proofs to support your answers. (2)

A.5. Language Study: (2)

(i) Long practice had sharpened his perception. (Identify the tense)
(ii) You have an impetuous nature and a rough exterior.
(Rewrite using Not only…..but also)

A.6. Find out the words form the extract which mean: (2)

(i) inheritable (ii) observation (iii) impulsive (iv) made likeable

B1 Language study: (Non-Textual Grammar) Do as directed: (3)

(i) He went in the market and bought about a dozen of blank papers. 1
(Make it a 'Simple Sentence.')
(ii) We can accept our life gracefully. 1
(Rewrite using modal auxiliary showing '(Compulsion')
(iii) He is good ……. English, but weak…..Mathematics. 1
(Fill in the blanks with proper prepositions and Rewrite.)

B2. Spot the error in the given sentence and Rewrite the correct sentence.
She has been worked in this office since 1996. 1

SECTION-II-POETRY AND APPRECIATION

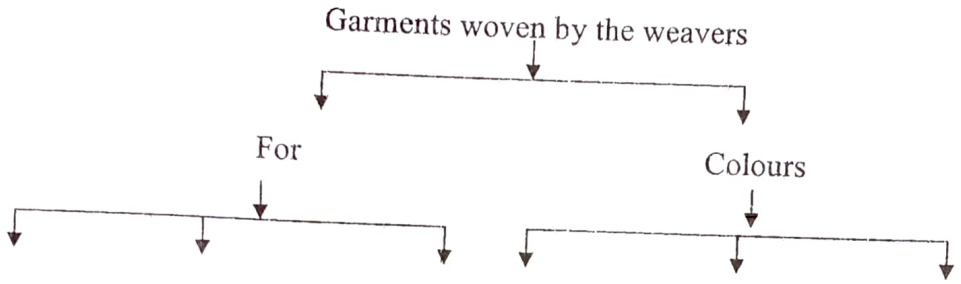
Q2 (A) Read the following extract and complete the activities given below: (10) (14)

Weavers, weaving at break of day.
Why do you weave a garment so gay?..
Blue as the wing of a halcyon wild,
We weave the robes of a newborn Child.

Weavers, weaving at fall of night,
Why do you weave a garment so bright?.
Like the plumes of a peacock, purple and green.
We weave the marriage-veils of a queen .

Weavers, weaving solemn and still.
What do you weave in the moonlight chill...
White as a feather and white as a cloud,
We weave a dead man's funeral shroud.

A1. Complete the following tree-diagram with the help of the given extract. (2)



A.2. Explain in the light of the extract, the significance of the colours in human life (2)

A.3. Which phase of life do you like the most? Why? (2)

A4. Name and explain the figure of speech in the following line: (2)
'Like the plumes of peacock, purple and green'

A5. Compose the last two lines of your own to complete the following short poem: (2)
Life is full of ups and downs
There are joys as well as sorrows

(B) Appreciation: (4)

Read the given extract and write the appreciation of the given poem based on the following aspects.

Afoot and light hearted I take to the open road,
Healthy, free, the world before me,
The long brown path before me leading wherever I choose.
Hence forth I ask not good - fortune I myself am
good fortune,
Hence forth I whimper no more, postpone no more,
Done with indoor complaints, libraries, querulous criticisms,
Strong and content I travel the open road.
The earth, that is sufficient,
I do not want the constellations any nearer,

I know they are very well where they are,
I know they suffice for those who belong to them.

- **About the poem, significance of the title**
- **Form of the poem , theme and its significance**
- **Poetic style , language features, poetic devices**
- **Inspirational message, values, morals reflected**
- **Your opinion and critical evaluation of the poem.**

Section III- Writing Skill

Q3(A.) Complete the activities as per the instructions given below: **(4)[12]**

1) Drafting a virtual message:

Rahul comes home from office and notices the door of his flat / house is locked. As he had another key with him, he opens the door and enters the house. On the table he finds a note left for him by his wife saying that she had to rush to the school of her son who has met with an accident. She also has written if any emergency is there, she will inform him immediately. She has also told him to take his evening snacks and he could heat it in microwave if he wants it hot, and has asked him to be very careful while handling microwave switch.

Draft a message which Rahul's wife has left for him.

OR

(2) Statement of Purpose:

Read the following personal details and prepare a suitable statement of purpose.

You are an avid animal lover. You have a pet dog and some love birds at your home. You are extremely fond of them. You have been a member of a bird watcher's club. You have loved going on safari. You have taken care of orphan animals or animals who are hurt. In school you loved biology. Now you wish to make career in this field. The university of Cambridge offers an excellent course/programme which would boost your career. Make a statement of Purpose which will help you to get admission to this university.

OR

(3) Group Discussion:

You and your friends including Rahul are on the Juhu Beach, Mumbai. You are discussing about the hot weather in Mumbai. You discuss about the cold weather at Mahabaleshwar and Panchgani. Write a short group discussion amongst you and your friends. You are sumedh. Write your answer in 8 to 10 dialogues.

(B) Attempt any ONE of the following: **(4)**

(1) Email Writing:

Write an email to your friend about your proposed trek. You can take help of the following points. You can keep your parents informed about it by adding them in BCC.

- ✓ A trek in the forest of Vasota fort in the Sahyadri ranges
- ✓ Time and duration
- ✓ Type of trek (cycle/motorbike/walk)
- ✓ Facilities provided
- ✓ Last date for Registration
- ✓ Fees

OR

(2) Report Writing:

Write a report for your college magazine describing the proceedings of an inter collegiate cultural festival organised by your college.

OR

(3) Interview Questions:

Imagine you are going to interview a well-known doctor in your area. Prepare a set of 8 to 10 questions focussing on his career, practice, social behaviour and the activities he carried out. Frame out the questions as per following table.

Name of the interviewee (distinguished personality)	
Area of Success/Reputation	
Date/Venue/Time	
Duration of interview	
Questions:	
1)Family background	
2)Inspiration	
3)Hurdles	
4)Purpose of work in poor area	

5)Initial days as a doctor	
6)Ways method/s to attract people	
7)Family/wife's support	
8)Memorable incident	
9)Message	

(C) Attempt any one of the following: (4)

(1) Speech Writing:

You intend to take part in an inter collegiate elocution competition. One of the topic there is' Stop Cruelty to Animals and Birds' prepare speech on it in about 120 words.

OR

(2) Compering :

Imagine that you are a compere of Annual Day of your college.Write a script for the same. Make use of the following points.

- Introduction-a brief introduction of the programme/function
- Lighting of lamp
- Welcome song
- Welcome speech-Principal's speech.welcome of the guest, guest's speech
- Prize distribution
- Vote of thanks

OR

(3) Expansion of Idea:

Expand the following idea with the help of the points given below. Write your answer in about 100-150 words.

A Stitch in Time Saves Nine

- Literal meaning of the proverb
- Importance of doing work regularly
- Don't keep your work pending
- Support your understanding of the symbolic meaning of the words
- Sum up the expansion with what you have learnt from the given proverb

SECTION IV-(LITERARY GENRE-NOVEL)

Q4A) Complete the activities given below as per the instruction: **(4)[8]**

(i) Match the following items from column-'A' with those from the column-'B': (2)

Column'A'		Column'B'	
(a)	Oroonoku	(i)	Joseph Conard
(b)	The Heart of Darkness	(ii)	John Bunyan
(c)	Frankemstein	(iii)	Aphra Behn
(d)	The Pilgrim's Progress	(iv)	Mary Shelly

(ii) Choose the correct alternatives and complete the given statement: **(2)**

(a) Novels with elements of horror ,blood-shed and mystery are called_____ novels.

(Realistic, Gothic, Psychological)

(b)The German word 'bildungsroman' indicates_____.

(Letter, New, Growth)

(c)There are_____ essential elements of 'Novella'.

(six, eight, eleven)

(d)Struggle between the opposite forces in the story is called _____

(plot, conflict/setting)

(B) Activities based on the extract of the novel 'To Sir, with Love' **(4)**

(Answer in about 50 words):

(i)Give the character-sketch of E. R . Braithwaite (the narrator). (2)

(ii)Describe how Miss Philips justifies the importance of P.T. to Denham. (2)

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Date: 0 3 NOV 2023

Navkonkan Education Society's
D. B. J. College, Chiplun
XII Terminal Examination 2023-2024

Roll No. | | | |

Time:- 2 ½ Hrs | Subject:- Physics | Pages:-02 | Marks: 50

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

1. **Section A:** **Q. No. 1** contains **7** multiple choice type questions carrying **1** mark each.
   Q. No. 2 contains **7** very short answer type of questions carrying **1** mark each.
2. **Section B:** **Q. No. 3 to Q. No. 13** contains **11** short answer type of questions carrying **2** marks each.
3. **Section C:** **Q. No. 14 to Q. No. 19** contains **6** short answer type of questions carrying **3** marks each.
4. **Section D:** **Q. No. 20 to Q. No. 23** contains **4** long answer type of questions carrying **4** marks each.
5. Use of log table is allowed. Use of calculator is not allowed.
6. Figures to the right indicates full marks.

SECTION-A

Q.1 Select and write the correct answer with proper choice. **(07)**

(i) In a conical pendulum the height of point of suspension from the horizontal plane of the circle is 9.8 m($g = 9.8\ m/s^2$). The period of the conical pendulum is
(A) π second (B) 2π second
(C) 3π second (D) $\pi/2$ second

(ii) In Bernoulli's theorem, which of the following is conserved?
(A) linear momentum (B) angular momentum
(C) mass (D) energy

(iii) If diatonic gas is not rigid then the ratio of two specific heats C_p/C_v is
(A) 1/7 (B) 2/7
(C) 3/7 (D) 9/7

(iv) An engine works at 5000 RPM and it perform 1000 J of work in one cycle. If the engine runs for 10 min, then total work done by engine is
(A) 5×10^5 J (B) 25×10^5 J
(C) 25×10^7 J (D) 5×10^7 J

(v) A parallel plate capacitor has circular plates of radius 8 cm and plate separation 1 mm. What will be the charge on the plates if a potential difference of 100 V is applied?
(A) 1.78×10^{-8} C (B) 1.78×10^{-5} C
(C) 4.3×10^4 C (D) 2×10^{-9} C

(vi) In a half wave rectifier current is blocked during the -------- cycles.
(A) positive (B) negative
(C) not blocked (D) none of these

(vii) Kirchhoff's first law, i.e., $\Sigma I = 0$ at a junction, deals with the conservation of
(A) charge (B) energy
(C) momentum (D) mass

Q.2 Answer the following. **(07)**

(i) What is the phase difference between the particles of two successive nodes in radian?
(ii) What are conditions for dark and bright fringes?
(iii) Define linear simple harmonic motion.
(iv) 500 calories of radiant heat is incident on a body which absorbs 400 calories. What is coefficient of emission?
(v) A voltmeter has a resistance 30 Ω. What will be its reading, when it is connected across a cell of emf 2 V having internal resistance 10 Ω?

(vi) What is banking of road?

(vii) Two capillary tubes of radii 0.3 cm and 0.6 cm are dipped in the same liquid. What is the ratio of heights through the liquid will rise in the tubes?

SECTION-B

Attempt any **Eight.** (16)

Q. 3 How much amount of work is done in forming a soap bubble of radius r?

Q. 4 Derive an expression for kinetic energy of rotating body with uniform angular velocity.

Q. 5 At what temperature will black body radiate heat at the rate of 20 K watt/m^2? ($\sigma = 5.67 \times 10^{-8}$ watt/m^2K^4)

Q. 6 The wire of length 1 m and mass 20 g is subjected to a tension of 200 N. Find the fundamental frequency and its second overtone.

Q. 7 Explain the construction of spherical wavefront.

Q. 8 Efficiency of carnot cycle is 75%. If temperature of the hot reservoir is 727^0C, calculate the temperature of the cold reservoir.

Q. 9 Explain the reflection of wave and change of phase of sound waves.

Q.10 Distinguish between potentiometer and voltmeter.

Q.11 Draw the schematic symbol for AND, OR, NOT and NAND gate.

Q.12 The maximum velocity of a particle performing linear S.H.M is 0.16 m/s. If its maximum acceleration 0.64 m/s^2, calculate its period.

Q.13 Draw a neat labelled diagram of a parallel plate capacitor completely filled with dielectric.

SECTION-C

Attempt any **Four.** (12)

Q.14 Calculate the angle of banking for a circular track of radius 600 m if it has to be suitable for driving a car with a maximum speed of 180 km/hr.($g = 9.8$ m/s^2)

Q.15 Explain the heat engine cycle and its P-V diagram.

Q.16 Explain laws of reflection of light using Huygen's principle

Q.17 Two organs pipe open at both ends are sounded together and 5 beats are heard per second. The length of shorter pipe is 0.25 m. Find the length of the other pipe. (Given; velocity of sound in air = 350 m/s and end correction, e = 0.015 m for both the pipes.)

Q.18 Calculate density of paraffin oil, if glass capillary of diameter 0.25 mm dipped in paraffin oil of surface tension0.0245N/m rises to a height of 4 cm.
(Angle of contact of paraffin with glass $=28^0$ and $g = 9.8$ m/s^2)

Q.19 Explain with neat diagram how will you determine unknown resistance by using meter bridge.

SECTION-D

Attempt any **Two.** (8)

Q.20 Derive the expression for pressure exerted by the gas on the basis of kinetic theory of gases.

Q.21 Define second's pendulum. Find the length of second's pendulum at a place where $g = 9.8$ m/s^2.

Q.22 Describe the working of heat pump in short
A 10 μF capacitor is connected with100 V battery. What would be electrostatic energy stored?

Q.23 Draw a neat diagram of full wave rectifier.
A potentiometer wire has length of 2 m and resistance 10 Ω. It is connected in series with resistance 990 Ω and a cell of e.m.f. 2 V. Calculate potential gradient along the wire.

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Date:- 04 /11/2023 | Navkonkan Education Society's | Roll No.

D.B.J.College, Chiplun

XII Terminal Examination (2023)

Time -2 1/2hrs | Sub-**Chemistry** | Pages: - 2 | Max.Marks-50

General instructions: **Question paper is divided into four sections.**

1) **Section-A**: Q. No. 1 contains seven multiple choice type of questions carrying One mark each.
   Q. No. 2 contains seven very short answer type of questions carrying One mark each.
2) **Section-B** : Q. No. 3 to Q. No. 13 contains eleven short answer type of questions carrying Two marks each.
3) **Section-C**: Q. No.14 to Q. No. 19 contains six short answer type of questions carrying Three marks each.
4) **Section-D** : Q. No. 20 to Q. No 23 contains 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 its alphabet. e.g. (a)-------- /(b)--------/(c)--------/(d)-------**
8) Physical constants – R = 8.314 J/K mol, N_A= 6.022 x 10^{23}

SECTION – A

Q.No.1. **Select and write most appropriate answer from the given alternatives for the following.** **[07]**

i) A molal solution is defined as the one which contains one mole of solute in ------
   a) 1000 ml of water b) 1000 gram of water
   b) c) 22.4 liter of water d) 1 dm^3 of water

ii) What is the nature of the aqueous solution ofsalt $FeCl_3$?
   a) Acidic b) Basic c) Neutral d) Amphoteric

iii) Iso-propyl alcohol on oxidation gives------
   a) Acetone b) Ether c) Ethylene d) Acetaldehyde

iv) $\Delta U = 0$ is true for ---------- process.
   a) Adiabatic b) Isothermal c) Isobaric d) Isochoric

v) In dry cell, -------is used as anode.
   a) Graphite b) zinc rod c) lead d) Cadmium

vi) Which of the following is used as source of dichlorocarbene?
   a) CCl_4 b) $CHCl_3$ c) CHI_3 d) DDT

vii) Cisplatin drug is used in the treatment of ----------.
   a) Asthama b) AIDS c) Cancer d) Malaria

Q.No.2. **Answer the following:** **[07]**

i) Write the structural formula of Crotonyl alcohol.
ii) Define ebullioscopic constant.
iii) What is formalin?
iv) Write an example of salt of weak acid and weak base.
v) What are the IUPAC sign conventions of W?
vi) Write the cell representation of SHE.
vii) Name the reaction involved in conversion of Chlorobenzene to biphenyl.

SECTION-B

Attempt any EIGHT. **[16]**

Q.No.3. What is the coordination number and oxidation state of metal ion in the complex $[Cr(en)_2Br_2]^+$.

Q.No.4. Explain Kolbe's reaction of phenol.

Q.No.5. State and explain Henry's law.

Q.No.6. The solubility of AgBr in water is 1.28 x 10^{-5} mol/dm^3 at 298K. Calculate the solubility product of AgBr at the same temperature.

Q.No.7. What is the action of $SOCl_2$ and PCl_3 on carboxylic acid.

Q.No.8. A system absorbs 520 J of heat and perform s work of 210 J. Calculate the change in internal energy.

Q.No.9. State Kohlrausch's law and write mathem tical expression of molar conductivity of the given solution at infinite dilution.

Q.No.10. What are the types of ligands? Give one example of each type.

Q.No.11. Write one example of Clemmensen red ction and wolf- Kishner reduction.

Q.No.12. Explain a buffer action of an acidic bu f r.

Q.No.13. Explain optical isomerism in 2-Chlo b tane.

SECTION-C

Attempt any FOUR. [12]

Q.No.14. Explain the terms-Isotonic solutio , Hypo nic solution, Hypertonic solution.

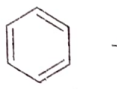
Q.No.15. Calculate emf of the cell , if E^0 Zn | Zn = -0.763V

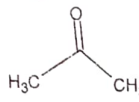
$Zn_{(s)} \mid Zn^{2+} \parallel H^+ \mid H_{2(g,\ 1.8\ atm)} \mid Pt$ at 25°C.

(0.2M) (1.6M)

Q.No.16. Complete the following reaction -

a) $R\text{-}COOH + LiAlH_4 \xrightleftharpoons{Dr\ Ether} ?$

b)  $\xrightarrow[\text{Anhy. } AlCl_3]{CO + HCl,\ Hi\ n\ pressu} ?$

c)  $\xrightarrow[\Delta]{Ni\ OH, I_2} ?$

Q.No.17. Write the mechan sm of acid c talysed dehydration of ethanol to give ethene.

Q.No.18. Calculate the sta dard entha y of formation of $H_3C\text{-}OH_{(l)}$ from the following data

i) $H_3C\text{-}OH_{(l)} + 3/2\ O_{2(g)} \longrightarrow CO_{2(g)} + 2H_2O_{(l)}$ $\Delta_cH^0 = -726\ kJ\ mol^{-1}$

ii) $C_{(Graphite)} + O_{2\ (g)} \longrightarrow CO_{2(g)}$ $\Delta_cH^0 = -393\ kJ\ mol^{-1}$

iii) $H_{2(g)} + \frac{1}{2} O_{2(g)} \longrightarrow H_2O_{(l)}$ $\Delta_fH^0 = -286\ kJ\ mol^{-1}$

Q.No.19. How –X gr up from $H_3C\text{-}X$ an be replaced by-OH, -CN, -NC functional groups?

SECTION-D

Attempt any TWO. [08]

Q.No.20. $[Ni(CN)_4]^{2-}$ is diamagnetic while $[Cr(NH_3)_6]^{3+}$ is paramagnetic, explain.

The fre zing point of a pure solvent is 315K. On addition of 0.5 mole of urea in 1kg of the solvent, the freez g point decreases by 3K. Calculate the molal depre sion constant for th s c vent.

Q.No.21. Deri e the expression for PV ype of work.

Dis nguish between S_N1 nd S_N2 eaction mechanism.

Q.No.22. W ite chemical equation for the p reparation of Cyclopentyl ethyl ether as major p od ct by Williamson's ynthes s.

Comment on spontaneity f reac ion for which ΔH is positive and ΔS is negative.

The concentration of H^+ io in le ion juice is 2.5×10^{-3}M. Calculate the OH^- ion concentration and classify he so ution as acidic, basic or neutral.

Q.No.23. Write reactions showing –

a) Aldol condensatio of c clohexanone

b) Action of Ammoni on carboxylic acid.

Write any two applications of electrochemical series in detail.

X-X-X-X-X-X

Date:- 06/11/2023

Navkonkan Education Society's Roll No. | | |

D.B.J. College, Chiplun

XII Terminal Examination 2023-2024

Time: - 2 - 1/2Hrs. Sub:- Biology Pages: -3 Max.Marks:– 50

Section –A

Q.1 Select and write the correct answer from the following multiple choice of questions: **[7]**

i Which of the following is one of the part of Cerebrum -----
(a) Crura cerebri. (b) Cerebral Peduncle
(c) Corpus callosum (d) Cerebellum.

ii The ploidy of spermatogonia, primary spermatocyte, secondary spermatocyte and spermatid is -----
(a) 2n, 2n, 2n, n. (b) n, 2n, 2n, n
(c) n, 2n, n, n (d) 2n, 2n, n, n.

iii The major composition of semen is -----
(a) Seminal fluid. (b) Prostatic fluid
(c) Cowper's gland secretion (d) Sperms.

iv Name the nutritive layer in anther wall -----
(a) Epidermis. (b) Tapetum
(c) Endothecium (d) Middle layer.

v Water available for absorption by roots is -----
(a) Capillary water. (b) Gravitational water
(c) Combined water (d) Hygroscopic water.

vi The Histone protein associated with DNA thread where it enters and leaves nucleosome is -----
(a) H_1. (b) H_2A (c) H_2B (d) H_3

vii A cross between plants having genotypes RRYY and rryy composition will yield plants with -----
(a) Round and yellow seeds. (b) Round green seeds
(c) Wrinkled and yellow seeds (d) Wrinkled and green seeds.

Q.2 Answer the following questions. **[7]**

i " Colour-blindness is inherited from colour-blind father to his grandson through his daughter." Identify the type of inheritance.

ii Give the function of Sertoli cells in Testis.

iii " Dumbbell shaped guard cells of stomata is the characteristic of monocot leaves." State either the statement is true or false.

iv Explain the disease Pneumonia considering symptoms.

v Define the term cardiac output.

vi Which structures of CNS secrete cerebrospinal fluid (CSF).

vii What is hypertension?

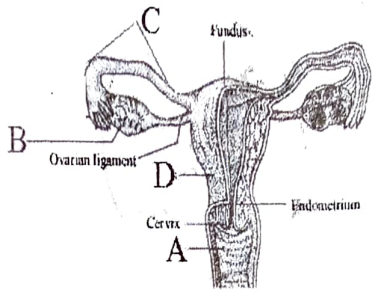
Section –B

Attempt any EIGHT of the followings : - (Question No. 03 to 13) [16]

Q. 3 Give the characteristics of genetic code.

Q. 4 i- What is transformation?
ii- Name the bacterium on which Griffith performed experiment.

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



Q. 6 Define the terms i - Symplast pathway ii- Apoplast pathway

Q. 7 Write a note on entomophily.

Q. 8 Explain the mechanism of inspiration during breathing.

Q. 9 Match the following columns with respect to hormones and the changes during menstrual cycle.

	Column - I		Column - II
a	Menstrual phase	i	Secretion of estrogen
b	Proliferative phase	ii	Secretion of progesterone
c	Ovulatory phase	iii	Decreased level of estrogen and progesterone.
d	Secretory phase	iv	Increased level of LH

Q. 10 Enlist the roles of hypothalamus of brain.

Q. 11 Enlist the names of VII, VIII, IX and X pairs of cranial nerves.

Q. 12 Give the appropriate terms for the following conditions ..
i- Formation of RBCs. ii- Uncontrolled increase in number of WBCs.
iii- Decreased number of RBCs. iv- Temporary increase in number of WBCs.

Q. 13 Match the following from column- I and column – II.

	Column -I		Column - II
a	Down's syndrome	I	XO
b	Turners syndrome	Ii	Hypertrichosis.
c	Klinefelter's syndrome	Iii	21st trisomy.
d	Holandric character.	iv	XXY

Section –C

Attempt any FOUR of the followings : - (Question No. 14 to 19) [12]

Q. 14 Define the terms a- Apomixis b- Parthenocarpy. c- Heterostyly.

Q. 15 i- Match the following from Column – I and Column- II with respect to enzymes and their roles during DNA replication.

	Column - I		Column - II
i	DNA polymerase	A	DNA unwinding enzyme
Ii	Endonucleases	b	Joins Oka zaki fragments
Iii	DNA Helicases	c	Newly bound nucleotides are connected to form polymer
iv	DNA ligase	d	Nicks one of the strand of DNA

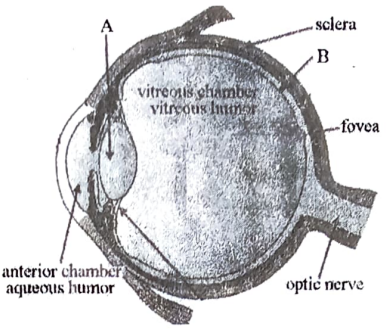
ii- Histones are the proteins that are rich in ---------- & ---------- residues.
(Fill in the blanks.)

Q. 16 With respect to Cohesion tension theory, explain the following terms----
a- Cohesive force b- Adhesive force c- Transpiration pull.

Q. 17 i- Sketch and label T.S. of testis.
ii- Explain the term Cryptorchidism.

Q. 18 Give an account of transport of O_2 from lungs to the body tissues.

Q. 19 i- Identify the labels A and B in given diagram.
ii- Write a note on Photoreceptor cells.



Section –D

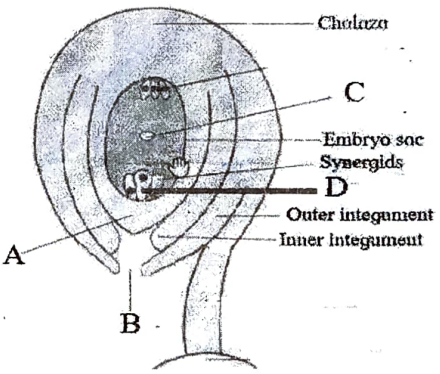
Attempt any TWO of the followings : - (Question No. 20 to 23) **[08]**

Q. 20 With the help of suitable diagram describe the conducting system of human heart.

Q. 21 i- Give the statements of following Mendalian laws of inheritance
a- Law of dominance. b- Law of segregation. c- Law of independent assortment.
ii- How Co-dominance differ from incomplete dominance?

Q. 22 With the help of neat labelled diagram describe formation of spinal nerve.

Q. 23 i- Identify the parts of anatropous ovule A, B, C & D in the given diagram.
ii- Give the functions of the same i.e. identified parts.



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Date: 07 NOV 2023

Navkokan Education society's
D.B.J. College, Chiplun
XII Terminal Examination 2023 - 24

Roll No. | | | |

Time - 2½ Hrs | **Sub – Hindi** | **Pages:- 3** | **Marks - 50**

सूचनाएँ –

१) सूचना के अनुसार गद्य, पद्य, विशेष अध्ययन तथा व्यावहारिक हिंदी की कृतियों में आवश्यकता के अनुसार आकृतियों में ही उत्तर लिखना अपेक्षित है। आवश्यक है।

२) सभी आकृतियों के लिए पेन का ही उपयोग कीजिए ।

३) आकृतियों में उत्तर पेन से ही लिखना

४) व्याकरण विभाग में पूछी गई कृतियों आवश्यकता नहीं है।

५) शुद्ध, स्पष्ट एवं सुवाच्च उत्तर के लिए आकृतियों की करना अपेक्षित है।

विभाग – १ गदय अंक १२

प्रश्न १(अ) **निम्नलिखित गद्यांश पढ़कर सूचना के अनुसार कृतियाँ पूर्ण कीजिए** (06)

सुधारक पापों के विरुद्ध विद्रोह का झंडा बुलंद करता है तो पाप और उसका पापी समाज उसकी उपेक्षा करता है, उसकी ओर ध्यान नहीं देता और कभी–कभी कुछ सुन भी लेता है जो सुनकर हँस देता है जैसे वह किसी पागल की बडबड हो. प्रलाप हो। इन क्षणों में पाप का नारा होता है. अरे छोड़ो इसे और अपना काम करो।"

सुधारक का सत्य उपेक्षा की इस रगड़ से कुछ तेज होता जाता है, उसके स्वर अब पहले से कुछ पैने हो जाते हैं और कुछ ऊँचे भी।

अब समाज का पाप विवश हो जाता है कि वह सुधारक की बात सुने । वह सुनता है और उसपर निंदा की बौछारें फेंकने लगता है। सुधारक, सत्य और समाज के पाप के बीच यह गालियों की दीवार खड़ी करने का प्रयत्न है । जीवन अनुभवों का साक्षी है कि सुधारक के जो जितना समीप है, वह उसका उतना ही बड़ा निंदक होता है । यही कारण है कि सुधारकों को प्राय: क्षेत्र बदलने पड़े हैं ।

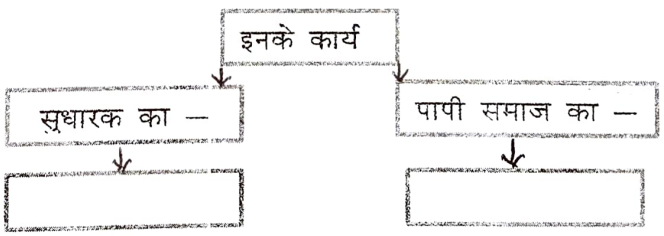
इन क्षणों में पाप का नारा होता है : "अजी बेवकूफ है, लोगों को बेवकूफ बनाना चाहता है ।"

सुधारक का सत्य निंदा की इस रगड़ से और भी प्रखर हो जाता है । अब उसकी धार चोट ही नहीं करती, काटती भी है । पाप के लिए यह चोट धीरे–धीरे असहय हो उठती है और वह बौखला उठता है। अब वह अपने सबसे तेज शस्त्र को हाथ में लेता है । यह शस्त्र है हत्या ।

सुकरात के लिए यह जहर का प्याला है, तो ईसा के लिए सूली, दयानंद के लिए यह पिसा काँच है । इन क्षणों में पाप का नारा होता है, "ओह, मैं तुम्हें खिलौना समझता रहा और तुम साँप निकले । पर मैं साँप को जीता नहीं छोडूँगा पीस डालूँगा ।"

सुधारक का सत्य हत्या के इस घर्षण से प्रचंड हो उठता है । शहादत उसे ऐसी धार देती है कि सुधारक के जीवन में उसे जो शक्ति प्राप्त न थी, अब वह हो जाती है । सूर्यों का ताप और प्रकाश उसमें समा जाता है, बिजलियों की कड़क और तूफानों का वेग भी ।

कृति (१) **आकृति पूर्ण कीजिए:** (02)



(२) **उत्तर लिखिए** (02)

- गद्यांश में आए पाप के दो नारे

i) _____

ii) _____

(३) लोगों के सक्रीय सहयोग में से ही समाज सुधारक का कार्य सफल हो सकता है। इस विषय पर ५० शब्दों अपने विचार लिखिए। (02)

(आ) **निम्नलिखित किसी दो प्रश्नों के उत्तर प्रत्येकी ८० से १०० शब्दों में लिखिए** (06)

(१) निराला जी की चारित्रिक विशेषताएँ लिखिए।

(२) 'बैजू बावरा संगीत का सच्चा पुजारी है। इस विषय को स्पष्ट कीजिए।

(३) 'पाप के चार हथियार "पाठ का संदेश लिखिए।

विभाग २ पद्य अंक (१२)

प्रश्न २. (अ) निम्नलिखित पदयांश पढ़कर सूचना के अनुसार कृतियाँ पूर्ण कीजिए :

दाता है पेड़...
जड़, तना, शाखा, पत्ती, पुष्प, फल और बीज
हमारे लिए ही तो है पेड़ की हर एक चीज
किसी ने उसे पूजा,
किसी ने उसपर कुल्हाड़ी चलाई
पर कोई बताए
क्या पेड़ ने एक बूँद भी आँसू की गिराई?
हमारी साँसों के लिए शुद्ध हवा
बीमारी के लिए दवा
शवयात्रा, शगुन या बारात
सभी के लिए देता है पुष्पों की सौगात
आदिकाल से आज तक
सुबह– शाम, दिन–रात
हमेशा देता आया है मनुष्य का साथ
कवि को मिला कागज, कलम, स्याही
वैद, हकीम को दवाई
शासन या प्रशासन
सभी के बैठने के लिए कुर्सी, मेज, आसन
जो हम उपयोग नहीं करें
वृक्ष के पास ऐसी एक भी नहीं चीज है जी हाँ, सच तो यह है कि
पेड़ संत है, दधीचि है ।

(१) कृति पूर्ण कीजिए।

पेड इन रूपों में दाता है →
→
→
→

(२) कविता की पंक्तियों को उचित क्रमानुसार लिखकर प्रवाह तख्ता पूर्ण कीजिए:

(१) वृक्ष के पास ऐसी एक भी नहीं चीज है
(२) हमेशा देता आया है मनुष्य का साथ
(३) हमारे लिए ही तो है पेड़ की हर एक चीज!
(४) सभी के लिए देता है पुष्पों की सौगात

(३) 'जीवन में पेड़ का महत्त्व' इस विषय पर ४० से ५० शब्दों में अपना मत व्यक्त कीजिए।

(आ) (आ) निम्नलिखित मुद्दों के आधार पर सच हम नहीं, सच तुम नही' कविता का रसास्वादन कीजिए

(१) रचनाकार का नाम
(२) पसंद की पंक्तियाँ
(३) पसंद आने के कारण
(४) कविता की केंद्रीय कल्पना

अथवा

जीवन के अनुभवों और वास्तविकता से परिचित कराने वाले वृंद जी के दोहों का रसास्वादन कीजिए

विभाग ३ विशेष अध्ययन अंक (१०)

प्रश्न ३. (अ) निम्न लिखित पद्यांश पढ़कर सूचना के अनुसार कृतियाँ पूर्ण कीजिए :–

अच्छा, मेरे महान कनु,
मान लो कि क्षण भर को
मैं यह स्वीकार लूँ
कि मेरे ये सारे तन्मयता के गहरे क्षण
सिर्फ भावावेश थे,
सुकोमल कल्पनाएँ थीं
रँगे हुए, अर्थहीन, आकर्षक शब्द थे–
मान लो कि
क्षण भर को
मैं यह स्वीकार लूँ
कि
पाप–पुण्य, धर्माधर्म, न्याय–दंड

क्षमा–शीलवाला यह तुम्हारा युद्ध सत्य है–
तो भी मैं क्या करूँ कनु,
मैं तो वही हूँ
तुम्हारी बावरी मित्र
जिसे सदा उतना ही ज्ञान मिला
जितना तुमने उसे दिया
जितना तुमने मुझे दिया है अभी तक
उसे पूरा समेटकर भी
आस–पास जाने कितना है तुम्हारे इतिहास का
जिसका कुछ अर्थ मुझे समझ नहीं आता है !

(१) कृति पूर्ण कीजिए: (02)

कनुप्रिया की तन्मयता के गहरे क्षण सिर्फ –

i)_____ ii)_____

iii)_____ iv)_____

(२) पद्यांश में से शब्द–युग्म ढूँढकर लिखिए: (02)

i)_____ ii)_____

iii)_____ iv)_____

(३) प्राचीन काल एवं आधुनिक काल की सेनाओं के बारे में ४० से ५० शब्दों में अपने विचार व्यक्त कीजिए। (02)

(आ) निम्नलिखित प्रश्नों में से किसी एक प्रश्न का उत्तर लगभग ८० से १०० शब्दों में लिखिए: (04)

(१) राधा की दृष्टि से जीवन की सार्थकता स्पष्ट कीजिए।

(२) कवि ने राधा के माध्यम से आधुनिक मानव की व्यथा को शब्दबद्ध किया है, इस कथन को स्पष्ट कीजिए।

विभाग ४– पारिभाषिक शब्दावली : अंक ६

प्रश्न ४ निम्नलिखित में से किन्हीं छह शब्दों के लिए हिंदी शब्द लिखिए: (06)

i) Announcer ii) Deduction iii) Expert iv) Warning

v) Balance vi) Action vii) Antibiotics viii) Graphic Tabe

विभाग ५– व्याकरण: (अंक १०)

प्रश्न ५ (अ) निम्नलिखित वाक्यों का कोष्ठक की सूचना के अनुसार काल परिवर्तन कीजिए (कोई दो) (02)

(१) मुकदमा दरबार में पेश होता है। (सामान्य भूतकाल

(२) मौसी कुछ नही बोल रही है। (अपूर्ण भूतकाल)

(३) मैं उसके परिणाम की प्रतीक्षा करती है। (सा. भविष्यतकाल)

प्रश्न ५. (आ) निम्न लिखित पंक्तियों में उद्धृत अलंकारो के नाम पहचानकर लिखिए:– (कोई दो) (02)

(१) सोहत ओढे पीत पर श्याम सलोने गात। मनों नीलमणि शैल पर, आतप पड्यो प्रभात ।।

(२) करत–करत अभ्यास के, जड़मति होत सुजान। रसरी आवत जात है, सिल पर पड़त निसान

(३) चरण–कमल–सम कोमल

प्रश्न ५. (इ) निम्न लिखित पंक्तियों में उद्धृत रस पहचान कर उनके नाम लिखिए: (कोई दो) (02)

(१) राम के रूप निहारती जानकी कंकन के नग की परछाई, याते सबै सुधि भूलि गई, कर टेकि रही पल टारत नाही।

(२) बिनु पग– चलै, सुनै बिनु काना । कर बिन कर्म करें, विधि नाना । आनन रहित सकल रस भोगी बिनु वाणी वक्ता, बड़ जोगी ।

(३) श्रीकृष्ण के वचन सुन, अर्जुन क्रोध से जलने लगे। सब शोक अपना भूलकर, करतल युगल मलने लगे।

प्रश्न ५. (ई) निम्न लिखित मुहावरों को के अर्थ लिखकर उचित वाक्यों में प्रयोग कीजिए: (कोई दो) (02)

(१) जान आँखे चार होना (२) विवश होना

(३) जी–जान काम करना (४) उगल देना।

प्रश्न ५. (उ) निम्न लिखित वाक्यों को शुद्ध करके वाक्य फिर से लिखिश (कोई दो) (02)

(१) यह नारा उँच उठे रहता है।

(२) यह तो जिंदगि का अहम फैसाला है।

(३) नीराला जी भी इसी परीवार के सदस्य हैं।

Date: 0 3 NOV 2023 Roll No: | | |

Navkonkan Education Society's
D.B.J. College, Chiplun.
XII Terminal Examination 2023-2024
Sub: MARATHI (Arts)

Time: 2:30Hrs **(03Pages)** **Max.Marks: 50**

कृतिपत्रिकेसाठी सूचना :

- *आकलन कृती व व्याकरण यांमधील आकृत्या किंवा चौकटी पेनाने अथवा पेन्सिलीने व्यवस्थित काढाव्यात.*
- *स्वच्छता, नीटनेटकेपणा व लेखननियमानुसार लेखन याकडे जाणीवपूर्वक लक्ष द्यावे.*

कृती – १) अ) सूचनेप्रमाणे कृती सोडवा. (०६)

१. लेखकाने वर्णन केलेली विकृती – [ ] [ ] (१)

२. अक्षम्य वेग म्हणजे ———————————— (१)

आता माणूस घरातून दारात आला, की वाहनावर आरूढ होतो. वेळ थोडा असतो. कामे बरीच असतात. पायी चालत उरकता येत नाहीत. जीवन हे दशदिशांना विभागलेले आहे. मुलांची शाळा एका टोकाला, आपले कार्यालय दुसऱ्या टोकाला, मंडई एका बाजूला तर दवाखाना दूर, कुठल्या तरी दिशेला. जीवनाची ही टोके सांधणार कशी? जोडणार कशी? शेवटी गती ही घ्यावीच लागते. यथाप्रमाण गती ही गरज आहे; पण अप्रमाण, अवास्तव आणि अनावश्यक गती ही एक विकृती आहे. आपली कामे यथासांग पार पाडावीत? एवढा वेग जीवनाला असावा त्यापेक्षा अधिक वेग म्हणजे अक्षम्य आवेग म्हणावा लागेल, तो आत्मघातकी ठरतो. अमेरिकेसारख्या विकसित देशात माणसे वेगाने जीवन जगतात. घरोघर आणि दरडोई वाहन उपलब्ध असते. रस्ते रुंद, सरळ, निर्विघ्न आणि एकमार्गी असतात. घरे, कार्यालये, बाजारपेठा यांत निदान शंभर मैलांचे किमान अंतर असते. जवळच्या जवळ सगळे असे सहसा नसते, अंतरावरच्या गोष्टींशी जवळीक साधण्यासाठी दूरवर जावे लागते. यातून माणसामाणसांत दुरावा निर्माण होतो. तसे जाचदायक आणि असहय होऊ नये म्हणून वेगाचा आश्रय घेतला जातो. वेगामुळे माणसे बेभान होतात. भान हरपले म्हणजे अस्वस्थता विरून जाते. वेगात एक बेहोषी असते.

३. 'वाहनाची अतिगती ही विकृती आहे.' याबाबत तुमचे मत १२ते१५ ओळींत लिहा. (४)

किंवा

३. रस्त्यावरील वाहतुक कोंडी कमी करण्याच्या उपाययोजना लिहा.

ब) **खालील उताऱ्याच्या आधारे सूचनेनुसार कृती करा.** (०६)

१. लेखिकेच्या प्रवासातील शेवटच्या टप्प्यातील ठिकाणे – (१)

[ ] [ ]

२. पुलावरील जवान इतके तास उभा राहिला – [ ] (१)

प्रवासातील शेवटच्या टप्प्यात कारगिल आणि मग द्रासला जायला निघालो. तेव्हा कारगिलमध्ये शिरताना लागणाऱ्या एका पुलावर एक सैनिक तैनात होता आमच्या चार गाडयांची तपासणी चालू असतानाच मी त्याच्याशी गप्पा मारत होते. ''कल आपको इसी रास्ते से वापस जाना है।'' असं तो म्हणाला. ''बढिया, कल फिर मिलेंगे ।'' ''नहीं, कल मैं नहीं रहूँगा । मेरा बडी होगा, मतलब मेरा साथी। लेकिन आपको कारगिल में किसी भी चीज की जरूरत पडे, तो यहाँ जरूर आना ।''

आम्ही योजल्याप्रमाणे कार्यक्रम आटोपून दुसऱ्या दिवशी संध्याकाळी त्या पुलावर आलो, तर तोच बच्चा उभा होता. ''अरे तू परत आलास?'' हया माझ्या प्रश्नावर तो हसून म्हणाला, ''मैं गया ही कहाँ था? मेरा बडी बीमार है, इसलिए मैं कल से यही हूँ।'' जवळजवळ छत्तीस तास तो मुलगा तिथे उभा होता.

''अरे, तुझा बडी आजपण नाही आला तर?'' माझ्या '१० ते ५' हया ड्युटीच्या चौकटीत हे छत्तीस तास उभं राहणं बसतच नव्हतं. तो हसून म्हणाला, ''मॅडम, कोई बात नहीं। वो ठीक होने तक मैं यहाँ खडा रहूँगा—चाहे और दो दिन भी क्यूँ ना लगे!'' 'हे इतक्या सहजतेनं तू कसं बोलतोस?' या माझ्या प्रश्नावर तो डोक्याला हात लावून म्हणाला, . ''सब कुछ आसान है, मॅडमजी। सिर्फ दिमाग में डाल देना है।'' प्रश्न पडायच्या आतच उत्तर तयार असलेला हा वीस–एकवीस वर्षाचा मुलगा!

३. 'सब कुछ आसान है, मॅडमजी। सिर्फ दिमाग में डालना है'. या विधानाचा आशय तुम्ही तुमच्या जीवनात कसा अंमलात आणाल ते लिहा. (४)

किंवा

३. सैनिकी जीवन व सामान्य नागरिक यांच्यातील तुलना तुमच्या शब्दात १२ ते १५ ओळींत लिहा.

कृती २. अ) खालील कवितेच्या आधारे सूचनेनुसार कृती करा. (०६)

१. एका शब्दात उत्तर लिहा.

कवीची सदैव सोबत करणारी _____ (१)

२. 'जीवनाचे सार सांगून दिशाभूल करतात' या अर्थाच्या २ ओळी लिहा. (१)

रंगुनी रंगांत साऱ्या रंग माझा वेगळा!
गुंतुनी गुंत्यांत साऱ्या पाय माझा मोकळा!
कोण जाणे कोठुनी ह्या सावल्या आल्या पुढे;
मी असा की लागती ह्या सावल्यांच्याही झळा!
राहती माझ्यासवें हीं आसवें गीतांपरी;
हें कशाचें दुःख ज्याला लागला माझा लळा :
कोणत्या काळीं कळेना मी जगाया लागलों
अन् कुठे आयुष्य गेलें कापुनी माझा गळा!
सांगती 'तात्पर्य' माझें सारख्या खोट्या दिशा :
"चालणारा पांगळा अन् पाहणारा आंधळा!"
माणसांच्या मध्यरात्रीं हिंडणारा सूर्य मी :
माझियासाठी न माझा पेटण्याचा सोहळा!

३. 'रंग माझा वेगळा' या गझलेतून कवीला आलेले अनुभव तुमच्या शब्दांत १२ ते १५ ओळींत लिहा. (४)

ब) सूचने नुसार कृती सोडवा. (०२)

रे थांब जरा आषाढघना
बघुं दे दिठी भरुन तुझी करुणा
कोमल पाचूंची हीं शेतें
प्रवाळमातीमधलीं औतें
इंद्रनीळ वेळूंचीं बेटें
या तुझ्याच पदविन्यासखुणा **या ओळींचे आशयसौंदर्य लिहा.**

किंवा

फुलं सोन्याची, झेंडू तोडते
बाई तोडते
नाही फुलं ग, देह तोडते
बाई तोडते
घरादाराला, तोरण बांधते
बाई बांधते
रोज मातीत, मी ग नांदते
बाई नांदते. **या ओळींचा अर्थ लिहा.**

कृती — ३) सूचनेप्रमाणे कृती सोडवा. (०४)

१. 'कथा' या शब्दाचा अर्थ लिहा.———————————————— (१)

२. प्रारंभी कथा लेखन करण्यामागचं कारण.———————————————— (१)

मनुष्य आपले अनुभव व कल्पना जेव्हा दुसऱ्याला सांगू लागला तेव्हाच त्यांची गोष्ट झाली आणि त्यातून कथेचा जन्म झाला. 'कथा' या शब्दाचा शब्दशः अर्थ गोष्ट, कहाणी, हकीकत, वर्णन असा आहे. लक्षवेधी, सोप्या, सुटसुटीत आणि रसाळ शब्दांत पूर्वी गोष्ट सांगितली जात असे. या श्रवण—गोष्टीतून मनोरंजन व अपत्यक्षपणे बोध देण्याचा प्रयत्न होत असे.

मौखिक परंपरेतून सुरू झालेल्या व लिखित स्वरूपात स्थिरावलेल्या 'कथा' या वाङ्मयप्रकाराला उत्तरोत्तर लोकप्रियता लाभत गेली. कथ् म्हणजे सांगणे. निवेदन करणे. कथ् या मूळ धातूपासून 'कथा' हा शब्द रूढ झाला आहे. भारतात कथा या साहित्यप्रकाराला फार मोठी परंपरा आहे.

प्रारंभी एखादी शिकवण देण्यासाठी, बोध देण्यासाठी कथालेखन केले गेले. नंतर—नंतर मनोरंजन करण्यासाठी किंवा एखादा विचार, भावना, चित्ताकर्षक घटना वाचकांपर्यंत पोहोचवण्यासाठी कथा लिहिल्या जाऊ लागल्या.

कथेत घटना असतात, कथानक असते, तिच्यात पात्रे असतात, स्थळ, काळ, वेळ यांचाही उल्लेख कथते असतो. कथेच्या विषयानुसार तिच्यात विशिष्ट वातावरणही असते आणि समर्पक अशी निवेदनशैलीही असते. कथेतील पात्रांच्या परस्परसंबंधातून निर्माण झालेले ताणतणाव, संघर्ष, गुंतागुंतही कथेत असते आणि या सर्वांचा एक उत्कर्षबिंदूही (क्लायमॅक्स) असतो कथेत! अर्थात या सर्व घटकांनी युक्त अशा कथेला समर्पक शेवटही असतो तसचे एक सुयोग्य आणि उत्तम शीर्षकही असतो.

थोडक्यात सांगायचे तर... कथा म्हणजे...

'एका विशिष्ट स्थलकाली पात्रांच्या परस्परसंबंधातून घडलेल्या घटनांचे एखादया विशिष्ट हेतूने केले उत्कंठावर्धक चित्रण म्हणजे कथा.'

३. कथा म्हणजे काय ते थोडक्यात लिहा. (२)

कृती ४ अ) थोडक्यात उत्तरे लिहा (कोणतेही एक) (०२)

१. मुलाखत म्हणजे काय ते थोडक्यात स्पष्ट करा.

२. माहितीपत्रक म्हणजे अप्रत्यक्ष जाहिरातच असते हे स्पष्ट करा.

ब)दिलेल्या मुद्द्यांच्या आधारे कृती सोडवा. (कोणतेही एक) (४)

१. पुढील मुद्द्याच्या आधारे मुलाखतीची पूर्वतयारी याविषयी माहिती लिहा.
मुलाखत म्हणजे———मुलाखतीचा पाया----------मुलाखतीचे उद्दिष्टये
———मुलाखतीचे स्वरुप.

२. पुढील मुद्द्यांच्या आधारे माहितीपत्रकाचे स्वरुप याविषयी माहिती लिहा.
माहितीपत्रक म्हणजे———जनमत आकर्षित करणारे माध्यम ———ग्राहकाला
होणारे फायदे————हेतू----------वेगळेपण————वैशिष्टये.

कृती– ५) सूचनेनुसार कृती करा. (१०)

१. उद्गारार्थी वाक्य ओळखा. (१)
अ) जगात सर्व सुखी असा कोण आहे ?
ब) सचिन तेंडूलकर उत्तम फलंदाज आहे.
क) किती छान आहे हे फूल !

२. पुढील सगळे मार्ग बंदच होते. (नकारार्थी वाक्य करा) (१)

३. 'दशमुख' या शब्दातील समास ओळखा. (१)

अ) व्दिगू समास ब) अव्ययीभाव क) बहुव्रीही समास

४. 'आईबाप' या शब्दातील समास ओळखा. (१)

अ) द्वंद्व समास ब) कर्मधारय क) व्दिगू समास

५. झाले बहु, होतिल बहु, आहेतहि बहु, परंतु या सम हा।

या ओळीतील अलंकार ओळखा. (१)

अ) अनन्वय ब) अपन्हुती क) अतिशयोक्ती

६. तदितर खग भेणे वेगळाले पळाले

कठिण समय येता कोण कामास येतो? (अलंकार ओळखा) (१)

अ) अनन्वय ब) अपन्हुती क) अर्थान्तरन्यास

७. समानार्थी शब्द लिहा. (२)

अ) मूल्य-- ब) देह--

८. विरूध्दार्थी शब्द लिहा. (२)

अ)आधार-- ब) निरुपयोगी--

कृती–६) पुढीलपैकी कोणत्याही एका विषयावर ३०० शब्दांत निबंध लिहा. (१०)

१. पावसाळयातील एक संध्याकाळ.

२. माझा आवडता कलावंत/लेखक.

३. इंटरनेट एक कल्पवृक्ष.

४. मी मुख्यमंत्री झालो तर.

५. एका सैनिकाचे मनोगत.

Date: 0 8 NOV 2023 Navkonkan Education Society's Roll No.:

D.B.J. College, Chiplun

XII(Sci) Terminal Examination 2023-2024

Time:- $2\frac{1}{2}$ hrs. Sub: – Mathematics Pages:- 02 Marks:–50

SECTION –A

Q.1. **Select and write the most appropriate answer from the given alternatives for each question:** **[12]**

i) Inverse of the statement pattern $(p \vee q) \rightarrow (p \wedge q)$ is

A)$(p \wedge q) \rightarrow (p \vee q)$ B)$\sim (p \vee q) \rightarrow (p \wedge q)$

C)$(\sim p \vee \sim q) \rightarrow (\sim p \wedge \sim q)$ D)$(\sim p \wedge \sim q) \rightarrow (\sim p \vee \sim q)$

ii) The principal solution of $cos^{-1}\left(\frac{-1}{2}\right)$ *is* ...

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

iii) If the sum of the slopes of lines represented by $x^2 + kxy - 3y^2 = 0$ is twice their product, then the value of 'k' is _____

A)2 B)1 C)-1 D)-2

iv) If $y = 1 - cos\theta$, $x = 1 - sin\theta$, then $\frac{dy}{dx}$ at $\theta = \frac{\pi}{4}$ is

A)-1 B)1 C)$\frac{1}{2}$ D)$\frac{1}{\sqrt{2}}$

v) The equation of tangent to the curve $y = x^2 + 4x + 1$ at $(-1, -2)$ is .....

A)$2x - y = 0$ B)$2x + y - 5 = 0$

C)$2x - y - 1 = 0$ D)$x + y - 1 = 0$

vi) If I= $\int_{\frac{-\pi}{2}}^{\frac{\pi}{2}} \frac{sin^4x}{sin^4x+cos^4x}\,dx$, then the value of I is :

A)0 B)π C)$\frac{\pi}{2}$ D)$\frac{\pi}{4}$

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

i) Find the general solution of the equation $sinx = 1$.

ii) If $y = sec\sqrt{x}$ then find $\frac{dy}{dx}$.

iii) Evaluate : $\int \log x\,dx$.

SECTION-B

[08]

Attempt any FOUR

Q.3) If A=$\begin{bmatrix}1 & 2\\ 3 & 4\end{bmatrix}$ verify that A(adjA) = |A|I.

Q.4) If $ax^2 + 2hxy + by^2 = 0$ represents a pair of lines and $h^2 = ab \neq 0$ then find the ratio of their slopes.

Q.5) If $y = tan^2(logx^3)$, find $\frac{dy}{dx}$.

Q.6) Show that the function f(x) = $x^3 + 10x + 7, x \in R$ is strictly increasing.

Q.7) Evaluate : $\int \frac{1}{25-9x^2}\,dx$.

Q.8) Evaluate : $\int \frac{\sqrt{tanx}}{sinx.cosx}\,dx$.

SECTION-C

Attempt any FIVE [15]

Q.9) Using the truth table , examine the following statement pattern is a tautology, a contradiction or a contingency : $(p \vee q) \vee r \leftrightarrow p \vee (q \vee r)$.

Q.10) Find inverse of matrix, $A = \begin{bmatrix} 1 & 2 & -2 \\ -2 & 3 & 0 \\ 0 & -2 & 1 \end{bmatrix}$.

Q.11) If $-1 \leq x \leq 1$ *then prove that* $sin^{-1}x + cos^{-1}x = \frac{\pi}{2}$.

Q.12) Prove that the acute angle θ between the pair of straight lines $ax^2 + 2hxy + by^2 = 0$ is given by $tan\theta = \left|\frac{2\sqrt{h^2-ab}}{a+b}\right|$, where $a + b \neq 0$.

Q.13) If $y = \sqrt{\tan x + \sqrt{\tan x + \sqrt{\tan x + \cdots \infty}}}$, show that $\frac{dy}{dx} = \frac{sec^2x}{2y-1}$. Find $\frac{dy}{dx}$ at x=0.

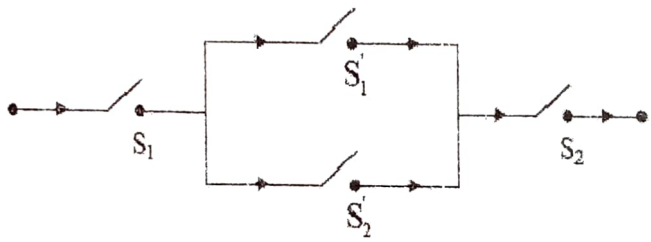
Q.14) Verify LMVT for the function f(x) $= \sqrt{x+4}$ on the interval [0, 5].

Q.15) Evaluate : $\int \frac{1}{2+cosx-sinx} dx$.

SECTION-D

Attempt any THREE [12]

Q.16) Simplify the given circuit by writing its logical expression. Also write your conclusion.



Q.17) Solve the following equations by the method of reduction:

$x + 3y + 3z = 12$, $x + 4y + 4z = 15$, $x + 3y + 4z = 13$

Q.18) In ΔABC, with usual notations prove that $a^2 = b^2 + c^2 - 2\,bc.\cos A$.

Q.19)Solve, Minimize $Z = 4x + 5y$,

Subject to $2x + y \geq 7$, $2x + 3y \leq 15$, $x \leq 3$, $x \geq 0$, $y \geq 0$.

Q.20) Prove that $\int_0^{2a} f(x)\,dx = \int_0^a f(x)\,dx + \int_0^a f(2a-x)\,dx$.

Q.21) Find area of the region lying between the parabolas $y^2 = 4ax$ & $x^2 = 4ay$.

Date :- 9/11/2023

Navkonkan Education Society's

D.B.J. College, Chiplun

Roll No.

XII Terminal Examination 2023-24

Time:- 2 1/2 Hrs. Sub:- Agriculture Science and Technology Pages:- 2 Marks:- 50

Note:- 1. All Questions are compulsory.

2. Draw neat and labelled diagram wherever necessary.

3. Figures to the right indicate full marks.

4. Write answers of all questions on new pages.

Q.1. Answer the following questions. **[14]**

A) Select the appropriate alternative and complete the following statements. **(5)**

1. The oil content in groundnut is----------%

a) 32-38 b) 40-44 c) 45-55 d) 52-60

2. Banana belong to family of ----------

a) Musaceae b) Rutaceae c) Anacardiaceae d) Gramineae

3. Removal of unwanted plant in to seed plot field is known as----------

a) Isolation b) Roguing c) Pollination d) Emasculation

4. Tissue culture is also known as----------

a) In-vitro culture b) Totipotency c) Explant d) Polyhouse

5. Pump set is example of ----------inputs.

a) Recurring b) Non recurring c) Partial d) Complete

B) Make the pairs. **(4)**

Group A	Group B
1. Gram	a) *Musa cavendish*
2. Banana	b) Bisexual flower
3. Papaya	c) Jowar root parasite
4. Striga	d) Midge fly
	e) Dioecious species
	f) *Cicer arietium*

C) Write true or false. **(5)**

1) Wheat has a good bread making quality among all cereals.

2) Molasses is useful for alcohol making.

3) Malic acid have medicinal value.

4) Zonal sowing of jowar crop is recommended to control midge fly attack.

5) Bulbils are normal flowers.

Q.2. Answer in brief. (Any Five) **(10)**

1) State uses of paddy.

2) Draw diagram of typical flower.

3) Define parthenogenesis.

4) What is meant by builbils.

5) List out non-recurring input of farm.

6) Define rogueing.

7) Give varieties of wheat.

P.T.O.

Q.3. Answer the following questions. (Any Four) (12)

1) Write short note on temporary nursery.

2) Write on tagarni of sugarcane.

3) State maturity signs of mango.

4) Write uses of groundnut.

5) State advantages of vegetative reproduction.

6) Give objectives of a nursery.

Q.4. Answer the following questions (Any Two) (08)

1) How nipping/topping is carried out in gram?

2) Give the importance of nursery.

3) Write short note on emasculation and pollination.

4) State importance of nursery.

Q.5. Answer the following questions in details (Any One) (06)

1) Supply information on flowering points regarding hybrid seed production of CSH-1 jowar crop.

a) Parents- i) Female

ii) Male

b) Parents- i) Female

ii) Male

c) Layout for sowing

d) Isolation distance

e) Roguing

2) Give information about soyabean crop on the following points:

a) Botanical name and family
b) Uses
c) Soil and climate
d) Variety (any four)
e) Sowing season and time
f) Harvesting and yield.

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