HOLIDAY HOMEWORK

CLASS- XI-Science

SESSION:2024-25

New session, new books and new friends have kept the kids buzzing for a while and now the much awaited vacation is here! Summer break is the best time of the year for parents and children alike. While parents get to spend the maximum time with their young ones during this period; for kids, it's time for family bonding, lots of ice cream, time to visit grandparents and getting pampered to no end.

Keeping this in mind, the subject wise assignments given as holidays homework have been planned with the view to make the optimum use of youngsters' energy and give a vent to their creativity so that the process of learning continues during the vacation as well. Parents' support and encouragement is sought to ascertain that the budding minds take out some time from long summer days and switch on the search energy of their minds in exploring and learning.

We hope that the students enjoy these holidays thoroughly in a way that they inculcate some values, virtues, and knowledge in the bargain!!!!

GENERAL INSTRUCTIONS

- Assignments should be done neatly by taking printouts on A4 sheets.
- After completion of assignments, paste it in respective subject notebook.
- The work should be original and not copied from Internet.
- The assignments should be submitted to respective subject teacher.
- The holiday homework would be marked out of 10 marks for each subject.
- Projects files to be compiled in the ring file and it should be properly covered.
- Models should be strictly made on the guidelines prescribed.
- Holiday homework should be submitted on 8thjuly i.e. Monday.

NOTICE:-

The school will be closed for summer vacation from May 30, 2024, to July 3, 2024. It will reopen on July 4, 2024, with the same school timings.

SUMMER HOLIDAY HOMEWORK(2024-25)

CLASS: XI- Science

Subject	Holidays Homework

English	Project Instructions: Grade XI Individual Projects A. Introduction: Dear Grade XI Students, Welcome to your individual project assignments. As you embark on your journey in Grade XI, engaging in meaningful projects is essential for personal and academic growth. Each of you will be working on an individual project based on a specific topic. These projects will culminate in a presentation to the class. B. Project Topics: - Roll Numbers 1-5: Topic 1 – All lives matter – Not just human lives - Roll Numbers 6-10: Topic 2 – Why we are opposed to change - Roll Numbers 11-15: Topic 3 – Practice makes a man perfect - Roll Numbers 16-20: Topic 4 – Why do we travel - Roll Numbers 21-25: Topic 5 – Family gives us strength - Roll Numbers 26-30: Topic 6 – Education system in India - Roll Numbers 31-35: Topic 7 – Unity is Power (Union is Strength) C. Project Details: - Topic 1 – All lives matter – Not just human lives: - Explore the concept of inclusivity and empathy towards all living beings. - Discuss the importance of animal rights, environmental conservation, and biodiversity. - Reflect on the interconnectedness of all life forms and the implications for society. - Topic 2 – Why we are opposed to change: - Analyze psychological, social, and cultural factors contributing to resistance towards change. - Discuss case studies or examples illustrating the challenges and benefits of embracing change. - Reflect on strategies for overcoming resistance and fostering a culture of adaptability. - Topic 3 – Practice makes a man perfect: - Examine the role of practice and perseverance in skill development and personal growth. - Share personal anecdotes or success stories illustrating the principle of practice. - Discuss practical strategies for incorporating deliberate practice into daily routines. - Topic 4 – Why do we travel: - Explore the motives behind human travel, including curiosity, exploration, leisure, and education. - Discuss the cultural, social, and economic impacts of travel on individuals and communities. - Reflect on personal travel experiences and insights gained from exploring new destinations.

- Topic 5 – Family gives us strength:
  - Discuss the importance of familial relationships in providing support, encouragement, and resilience.
  - Share personal anecdotes or examples highlighting the role of family in overcoming challenges.
  - Reflect on the values instilled by family and their impact on personal development.

- Topic 6 – Education system in India:
  - Evaluate the strengths and weaknesses of the education system in India.
  - Discuss reforms or improvements needed to address existing challenges and enhance educational outcomes.
  - Reflect on personal experiences within the education system and propose innovative solutions for improvement.

- Topic 7 – Unity is Power (Union is Strength):
  - Explore the concept of unity and collaboration in achieving common goals.
  - Discuss historical or contemporary examples of successful collective action and cooperation.
  - Reflect on the importance of unity in addressing societal challenges and fostering social cohesion.

D. Rubrics for Assessment:
a. Research and Data Collection: 10 points
b. Content Development: 10 points
c. Presentation of Findings: 5 points
d. Reflection and Analysis: 5 points

E. Submission Details:
- Submit project proposals for approval by [Insert Deadline].
- Final projects are due on [Insert Deadline].
- Presentations will take place on [Insert Dates].

F. Last Date for Submission:
[Insert Date]

The Voice of the Rain

1. The poem 'The Voice of the Rain' is a conversation between ___?
A. poet and rain
B. poet and mountains
C. rain and trees
D. birds and rain

2. What does the poet ask to the soft – falling shower?
A. What do you do?
B. What is your name?
C. Who are you?
D. How are you doing?

3. What does the rain reply to the poet's question 'Who are you'?
A. she is rain
B. she is poem of earth
C. she is rain from mountains
D. she is poem of mountains

4. Why does the rain tell the poet that she cannot be touched?
A. because she is water
B. because she rises in the form of water vapour
C. because she is in the form of clouds
D. None of the above

5. From which two places does the rain rise in the form of water vapour?
A. land and bottomless sea
B. land and ocean
C. mountains and land
D. None of the above

6. What happens to the earth when the rain falls back on the surface of earth?
A. it provides water
B. it beautifies and purifies the earth
C. it helps in greenary
D. it provides water to flora and fauna

7. How does the rain help the seeds inside the earth?
A. provides water
B. provides life and helps them grow
C. provides life
D. None of the above

8. What does the rain do when she doesn't care if anyone bothers about her deeds or not?
A. she talks to the land
B. she works harder
C. she completes her work and talk to the earth
D. she completes her work and comes back home

9. What does the poet compare the rain with?
A. Song
B. Heaven
C. Beauty
D. Flowers

10. Why does the poet compare the rain with a song?
A. because she beautifies the earth
B. because she provides life on earth
C. as they both share a common journey
D. None of the above

11. From where does the song originate?
A. from heaven
B. from ocean

C. from the heart of the singer
D. from the soul of earth

12. If the poet has used a Metaphor in the poem, what is it?
A. I am the Poem of Earth
B. voice of the rain
C. Soft-falling shower
D. None of the above

13. What Hyperbole was used in the poem?
A. I am the Poem of Earth
B. Soft-falling shower
C. Bottomless sea
D. voice of the rain

14. What happens to the rain in the sky?
A. rain drops form
B. rain it condenses
C. it forms clouds
D. None of the above

15. What does the word 'Descend' mean?
A. not clear
B. come down
C. to wash
D. hidden

16. Why does the rain descend to the earth?
A. to wash the drought and provide water
B. she provides life on earth
C. it beautify and purify the earth
D. it provides life

17. What does 'Reck'd or unreck'd' mean?
A. enrichment or no enrichment
B. cared for or not cared for
C. to purify or not
D. to wash or not to wash

18. Where does the song return in the poem?
A. to its originator, i.e. singer
B. to the poet
C. to earth
D. to ocean

19. What is the meaning of 'who art thou'?
A. Who are you?
B. What are you?
C. How are you?
D. Whose art is this?

20. Who is the poet of the poem 'The Voice of the Rain'?
A. Walt Whitman
B. Kushwant Singh

C. Naipul
D. Shirley Toulson

The Portrait of a Lady

1. Who is the author of 'The Portrait of a Lady'?
A. Ruskin Bond
B. Kushwant Singh
C. Naipaul
D. Vikram Bhatt

2. Who is the main character of the chapter 'The Portrait of a Lady'?
A. Mother
B. Sister
C. Grandmother
D. Daughter

3. How did the grandfather in the portrait hung on the wall look like?
A. Old, long white beard, worn big turban
B. Old, skinny, wrinkly
C. Young, Handsome, Well-Built
D. Old, Well-Built

4. How did the grandmother look?
A. Old, Fat, Long
B. Long, Fat, Slightly Bent
C. Old, Short, Slightly Bent, Fat
D. Slightly Bent, Fat

5. When did the author's parents leave him with his grandmother?
A. When he was a kid
B. When he was an infant
C. When he became a teenager
D. When he failed and became a teenager

6. Which animal did the grandmother used to feed in the village?
A .Dogs
B. Cows
C. Sparrows
D. Cats

7. What did the author eat for breakfast?
A. thick and stale chapatis with a little butter and sugar spread in it
B. thick bread with butter
C. upma
D. rice and curd

8. Why would grandmother accompany the author to his school?
A. to keep an eye on him
B. to wait for him to take him back to home
C. because of the temple attached to school
D. she wanted to meet villagers

9. Where were the parents of the author?
A. Abroad
B. City
C. Other Village
D. Other state

10. What would the grandmother do in the temple on a daily basis?
A. Meditation
B. Read Scriptures

C. Sing religious prayers
D. teach other kids religious prayers

11. What was the turning point of the friendship between grandmother and author?

A. When he became an adult
B. When his parents called them both to the city
C. When he left her to live in the city with his parents
D. When they stopped talking

12. Where did the author go to study in the city?

A. English School in motorbus
B. by walking down to nearby school
C. Hindi School
D. Nowhere

13. What made the grandmother unhappy about the author's new English School?

A. the fact that she could no longer help him with the lessons
B. Because they were in city
C. Because she didn't understand English
D. Because she didn't understand English and could no longer help him with the lessons

14. Why didn't the grandmother like music?

A. It was the monopoly of harlots and beggars and not meant for gentlefolk
B. She liked only religious prayers
C. She liked the traditional folk music
D. She thought it would distract him from studies

15. How did the grandmother spend her time in the city?

A. feedings dogs
B. reading scriptures
C. spinning the wheel
D. talking to neighbours

16. How did the grandmother spend her afternoon everyday?

A. by feeding hundred of sparrows
B. by taking a nap
C. by talking to author's mother
D. by going to temple

17. What happened when the author moved abroad to study for five years?

A. grandmother bid goodbye by silently kissing his forehead
B. No one came to see him
C. Grandmother moved back to village
D. Parents moved with him

18. What change came in the grandmother's evening schedule?

A. She collected the women of the neighborhood
B. She would go for a walk
C. She would sleep early
D. She would talk to his parents

19. What happened when the grandmother didn't pray for the first time?

A. She fell ill the next day
B. She made this her routine
C. She took a break and went to the village
D. None of the above

20. How did the grandmother react to her illness?

A. She said her end was near
B. She ignored her health
C. She took care of her
D. She was admitted to the hospital

21. What did the grandmother do in her final hours?

A. Talked to everyone in the house
B. worried about everyone
C. Silently praying and telling her beads
D. Went to the temple

22. How did the grandmother die?
A. during telling beads laying on the bed
B. In the hospital
C. While sleeping
D. None of the above
23. How did the sparrows express their sorrow at the death of their grandmother?
A. They didn't come that day
B. they came and sat silently in the verandah
C.They ate the bread crumbs
D. they chirruped a lot
24. What happened when they took the grandmother's corpse away?
A. Neighbours visited them to pay condolences
B. they mourned her death in her room
C. birds flew away quietly
D. Nothing happened
25. How do you feel about the character of the grandmother in the chapter?
A. Emotional
B. Strong
C. Selfless
D. Loving
26. Where was the author's grandfather's portrait placed?
A. on a shelf
B. hung above the mantelpiece
C. put on the mantelpiece
D. on a table
27. Did the author bother to learn the morning prayers that his grandmother recited?
A. yes
B. he listened but did not bother to learn
C. he could not learn
D. no
28. When was their common link of friendship snapped?
A. when he went to college
B. When he went to the university, they were given seperate rooms
C. when he started working
D. When he went abroad
29. What was grandmother's reaction when the author was going abroad?
A. Happy
B. sad
C. not even sentimental
D. Sentimental
30. What was her reaction when he came back after 5 years?
A. Overwhelmed
B. clasped the author in her arms and said prayers
C. happy
D. sentimental

The Summer of the Beautiful White Horse

Q1. Who is the author of "The Summer of the Beautiful White Horse"?
A. AJ Cronin
B. William Wordsworth
C. William Shakespeare
D. William Saroyan
Q2. What were the hallmarks of the Garoghlanian tribe?
A. Trust

B. Honesty
C. Both (A) and (B)
D. None of the above

Q3. "The Summer of the Beautiful White Horse" is a story of two _____ boys.

A. Armenian
B. Arabian
C. Assyrian
D. African

Q4. Mourad enjoyed being _____ more than anybody else.

A. crazy
B. alive
C. funny
D. None of the above

Q5. What according to Aram, was his first longing?

A. To own a horse
B. To become rich
C. To ride a horse
D. To visit a vineyard

Q6. Why couldn't Aram believe when he saw Mourad with the horse?

A. Because Mourad was crazy
B. Because they were poor to afford a horse
C. Because he was sleepy
D. Because he was dreaming

Q7. Where did Aram live?

A. In the centre of the town
B. In the country
C. Olive Avenue
D. At the edge of town on Walnut Avenue

Q8. How does Aram describe the horse?

A. Magnificent & lovely
B. Beautiful white horse
C. Both (A) and (B)
D. None of the above

Q9. No member of the Garoghlanian family could be _____.

A. poor
B. rich
C. a thief
D. crazy

Q10. Mourad was considered the natural descendant of his _____.

A. father
B. uncle
C. grandfather
D. great-grandfather

Q11. How would you describe uncle Khosrove?

A. Hot tempered
B. Irritable
C. Impatient
D. All of the above

Q12. What did uncle Khosrove do to stop anyone from talking?

A. By beating them
B. By walking away
C. By shouting at them
D. By ignoring them

Q13. What was uncle Khosrove's customary line?
A. Ignore it; pay no attention.
B. Forget it.
C. It is harmless; ignore it.
D. It is no harm; pay no attention to it.

Q14. When Aram rode the horse alone, it ran down the road to the _____.
A. vineyard
B. irrigation ditch
C. field
D. countryside

Q15. Mourad had been hiding the horse _____.
A. in a stable
B. in a barn of a vineyard
C. at a secret place of his house
D. None of the above

Q16. What was the behaviour of the horse initially?
A. It wanted to be trained
B. It wanted to rest
C. It wanted to run wild
D. All of the above

Q17. What sort of an understanding did Mourad mention with the horse?
A. Mature
B. Simple and honest
C. Complicated
D. Difficult

Q18. John Byro learned to speak Armenian out of _____.
A. necessity
B. fun
C. eagerness
D. loneliness

Q19. Who was the true knower of the horse?
A. John Byro
B. Fetvajian
C. DikranHalabian
D. Zorab

Q20. For how long did Mourad have the horse before Aram got to know about it?
A. One day
B. One year
C. One month
A. One week

Q21. At what time did Aram and Mourad ride the horse?
A. Late night
B. Early morning
C. Evening
D. Afternoon hours

Q22. "I have a way with farmers." Who says it to whom?
A. Aram to Mourad
B. Mourad to John Byro
C. Aram to John Byro
D. Mourad to Aram

Q23. John Byro said, "A suspicious man would believe his eyes instead of his heart." What does it tell about him?
A. He believed in the honesty of Garoghlanian family
B. He was impractical
C. He was foolish
D. None of the above

Q24. Why did the horse's owner refuse to believe that the boys had stolen his horse?
A. Because he didn't examine the horse carefully
B. Because their family was known for honesty
C. Because he had found his horse elsewhere
D. Because his horse had a twin

Q25. When did the boys return the horse?
A. After Aram learned to ride it
B. After an year
C. After six months
D. After they ran into John Byro

Q26. Why did the boys return the white horse to its owner?
A. Because they were conscience-stricken
B. Because they were afraid
C. Because they found it difficult to hide the horse
D. Because they were accused of theft

Q27. After the horse was stolen and returned, it became _____.
A. rougher
B. sick & ill
C. stronger & better-tempered
D. Both (A) and (C)

Q28. "Quiet, man, quiet. Your horse has been returned." Who said this?
A. Mourad
B. Aram
C. Uncle Khosrove
D. Not mentioned in the story

Q29. Who is the narrator of the story "The Summer of a Beautiful White Horse"?
A. William Saroyan
B. Aram
C. John Byro
D. Mourad

Q30. What idea/theme does "The Summer of a Beautiful White Horse" entails?
A. Honesty
B. Honour
C. Trust
D. All of the above

We are not afraid to die if we all can be together

1. From where did the ship sail for the voyage?
A. America
B. Mexico
C. Germany
D. Plymouth, England

2. Why did the author decide to go for a round-the-world voyage?
A.to duplicate the voyage made 200 years ago by Captain James Cook
B. to see the world
C. to settle down in different country
D. to show his children the world through ship

3. What was the occupation of the author?
A. Businessman
B. Sailor
C. Teacher
D. None of the above

4. What was the name of the ship of the author?

	A. Amazon B. Wavewalker C. Waveship D. Sailorship **5. What part of the journey was pleasant for them?** A. First leg – from England to Cape town B. Last part of the journey C. First few months D. Never **6. What were the names of the two crewmen whom the author hired?** A. Shelly and Cabil B. Larry Vigil and Herb Seigler C. Herb Seigler and Shelly Cooper D. Larry Vigil and Adam Moore **7. Why did the author hire the two crewmen?** A. to take rest from long the voyage B. to help tackle one of the world's roughest seas, the southern Indian Ocean C. because he could no longer sail the ship D. he wanted to spend some time with his family **8. When did the waves start getting gigantic?** A. December 25 B. January 2 C. November 30 D. December 31 **9. What did they do to slow down the boat in the storm?** A. Stopped sailing B. dropped the storm jib and lashed a heavy mooring rope C. just dropped the storm jib D. did nothing and waited for storm to calm down **10. What was the first indication of disaster?** A. around 6 pm when winds dropped and sky grew darker B. next morning when the ship started creaking C. when it started raining D. when winds were strong **11. What happened after the first indication of the disaster?** A. a wave appeared vertical and almost twice the height of other waves B. it broke the ship from inside C. the ship turned upside down D. it didn't affect the ship **12. How did the explosion affect the ship?** A. A torrent of green and white water broke over the ship B. the ship started sinking C. the ship turned upside down D. None of the above **13. Why did the author accept his approaching death?** A Pirates had attacked the ship B because he was injured by the explosion C he was thrown in the sea D he was stabbed **14. What did the author see when his head popped out of the water?** A. the ship was sinking B. the ship was nowhere to be seen C. the ship was near capsizing, her masts almost horizontal D. it was still standing **15. What happened to the author's body when he managed to reach the deck?** A. his head smashed again B. his left ribs cracked;mouth filled with blood and broken teeth C. he broke his leg D. his broke his left hand **16. Who said, "We're sinking!" ?**

A. His crewmen
B. Mary
C. His daughter
D. His son

17. What was the condition of the ship?

A. Broken timbers, starboard side bulged inwards; clothes, crockery, charts, tins and toys sloshed
B. There personal belongings were missing
C. water filled in every room and their clothes were missing
D. Can't say

18. What had happened to Sue when the author entered their room to check on them?

A. her head hurt as there was a bump
B. She was unconscious
C. her legs hurt
D. she was fine

19. What was the age of Suzanne and Jonathan?

A. 8 & 9 years old
B. 7 & 6 years old
C. 10 & 7 years old
D. 4 years & 6 years

20. How did the author manage to stretch the canvas?

A. by repairing the holes
B. by asking crewmen for help
C. it happened on its own
D. the problem got over as the storm had passed

21. What happened after the hand pumps started to block up with the debris floating around the cabins?

A. the author connected an electric-pump to an out-pipe
B. by taking out water with the help of bucket
C. by repairing hand pump
D. the author found another hand pump

22. Where did they decide to reach to save themselves and the ship?

A. Australia
B. Ile Amsterdam
C. Mumbai, India
D. Japan

23. What was their first meal in two days?

A. Meat loaves
B. bread and milk
C. noodles
D. corned beef and cracker biscuits

24. Who said, "we aren't afraid of dying if we can all be together — you and Mummy, Sue and I."?

A. Jon
B. Crewmen to each other
C. Suz
D. Mom

25. When did they reach Ile Amsterdam?

A. around 6 pm in the evening
B. never reached there
C. at 11 in the next morning
D. they decided to take different route

26. What was the status of the ship on January 3?

A. "pumps had the water level sufficiently under control "
B. condition was getting worse
C. they were still struggling to control the pumps
D. everything was just right

27. How long did they take for the ship's testing and fitting?

A. months
B. few days

C. 2 years
D. few weeks

28. Where had they reached on the 25th of December?

A. 3,500 kilometres east of Cape Town
B. they were suffering the waves away from Cape Town
C. 2500 km from Cape Town
D. reached capeTown

29. What happened when the author's head smashed into the wheel?

A. he was hurt but steady
B. he flew overboard sinking below the waves
C. he was not hurt
D. he gained control immediately

30. What does 'Mayday call' mean?

A Call made in the month of May
B Distress call for help
C Both A and B
D None of these

The Address

Q1. How did Mrs. Dorling treat the author when the author visited her?

A. Warm & welcoming
B. Cold & inhospitable
C. Overjoyed
D. Both (A) and (C)

Q2. "Her face gave absolutely no sign of recognition." Who is her?

A. Mrs. S
B. Mrs. Dorling's daughter
C. Mrs. Dorling
D. Mrs. S's daughter

Q3. In what attire did the author find Mrs. Dorling?

A. Author's mother's green knitted cardigan
B. Author's green knitted cardigan
C. Author is unable to recognise it
A. Not mentioned in the story

Q4. "I thought that no one had come back." Why does Mrs. Dorling say this?

A. Because she was happy to see the protagonist
B. Because she had been waiting for the protagonist for a long time
C. Because she thought everyone in the protagonist's family were dead
D. None of the above

Q5. What was the address that the author's mother asked her to remember?

A. Number 50, Marconi Street
B. Number 46, Baker Street
C. Number 54, Marconi Street
D. Number 46, Marconi Street

Q6. Mrs. Dorling's was _____ of Mrs. S.

A. a sister
B. an old acquaintance
C. an old friend
D. a relative

Q7. Mrs. Dorling took the possessions of the things on the pretence of

	_____. A. using them B. selling them C. keeping them safe D. Both (A) and (B) **Q8. Was the author convinced with her mother's idea of letting Mrs. Dorling take away their things?** A. Absolutely B. Partially C. Not at all D. Not mentioned in the story **Q9. How does the author describe Mrs. Dorling when she saw her the first time during the war?** A. A woman with a broad back B. A woman with a round back C. A woman with a straight back D. None of the above **Q10. Why did the author wait for such a long time before visiting "*The Address"*?** A. Because she was not interested B. Because she was afraid to confront her mother's belongings C. Both (A) and (B) D. None of the above **Q11. Why had the author come to visit Mrs. Dorling?** A. Because Mrs. Dorling had belongings of author's mother B. Because Mrs. Dorling called her C. Because she missed Mrs. Dorling D. None of the above **Q12. Who opened the door upon the author's second visit to Mrs. Dorling's house?** A. Mrs. Dorling B. Mrs. Dorling's daughter C. Mrs. Dorling's husband D. No one opened the door **Q13. Unlike Mrs. Dorling, her daughter was _____ towards the author.** A. rude B. mature C. hospitable D. mean **Q14. What was the protagonist's reaction when she entered the living-room?** A. Thrilled B. Emotional C. Nervous D. Horrified **Q15. "I was in a room I knew and did not know." What does author mean by this?** A. She saw familiar things but in unfamiliar surroundings B. She saw unfamiliar things but in familiar surroundings C. She did not recognize the things she saw

D. She did not want to remember anything

Q16. How does the author describe the living room?
A. Muggy smell
B. Strange atmosphere
C. Sophisticated
D. Both (A) and (B)

Q17. In what condition did the author find the living room?
A. Haphazard
B. Well arranged
C. Empty
D. Old fashioned

Q18. The author remembered that the woollen table-cloth had _____.
A. an ink-mark
B. a defect
C. a burn mark
D. None of the above

Q19. According to the author, when do we notice the things in the house?
A. When they are out of our sight
B. When they are used
C. When they are shown
D. All of the above

Q20. What was the 'silver' that the author was once asked to clean by her mother?

A. Jewellery
B. Cutlery
C. Sculptures
D. Stones

Q21. Why did the author leave Mrs. Dorling in a hurry?
A. Because she was getting late for the train
B. Because she no longer wanted to stay there
C. Both (A) and (B)
D. None of the above

Q22. Why did the objects lose their value for the author?
A. Because their prices fell down
B. Because they were difficult to take along
C. Because she had new objects
D. Because she saw them in different surroundings

Q23. At the end, what does the author decide?
A. To forget the address
B. To visit next year again
C. To remember the address forever
D. None of the above

Q24. Who is the protagonist of "The Address"?
A. Mrs. Dorling
B. Mrs. S's daughter
C. Mrs. S
D. Mrs. Dorling's daughter

Q25. The author had come to visit Mrs. Dorling _____ the war.
A. during

B. before
C. after
D. Not mentioned in the story

Q26. What was the very first out of her mother's possessions that the protagonist could recognize?
A. Hanukkah candle-holder
B. Woollen table-cloth
C. White tea pot
D. Green knitted cardigan

Q27. In total, how many times did the author visit the given address?
A. Twice
B. Once
C. Thrice
D. Never

Q28. Who is the author of "The Address"?
A. ManonUphoff
B. Marga Minco
C. Marente de Moor
D. None of the above

Q29. After reading "The Address", how would you describe Mrs. Dorling?
A. Materialistic
B. Selfish
C. Opportunist
D. All of the above

Q30. What message does "The Address" talk about?
A. Importance of things
B. Not to trust someone
C. Human predicament of war
D. None of the above

Chemistry	Topics: 1) INVESTIGATORY PROJECT (rough draft). Directions: Min. number of pages: 10 (excluding cover page, certificate page, acknowledgement) Project Topics : 1.Quantity of presence of casein in different samples of milk (Roll no-1-7) 2.Nano gold for cancer therapy .(Roll No-8-14) 3.Biodisel and biofuel ,project on green chemistry (Roll No-15-21) 4.setting of cement.(Roll No-22-28) 5.Project on different type of medicines(antibiotics,antiallergicetc) their uses and side effects (Roll no-28-35) 6.Sterelization of water with bleaching powder(Roll no-36-42) **Learning objectives:** Students will be able to design and carry out scientific experiments as well as accurately record and analyse the results of such experiments. **Working models** • Journey of a drug (static model) (roll no 1-6) https://images.app.goo.gl/qdaNuVEeyVmA3Knh8 https://images.app.goo.gl/D4gsJcUoBUcUs4yFA https://images.app.goo.gl/MiNZ26bd9GMdoXUu8 • Preparation of toilet soap (roll no-7-12) https://youtu.be/Z7T1u6G4hRw?si=JiAvSxPNzp69X4uf • How to make a smoke bomb (roll no-37-44) https://youtube.com/shorts/JFiMpAWmBCQ?si=wD86lx-yHTagTPSf • Chemistry model on production of chlorine (roll no-19-24) https://youtu.be/xB42lQvOQO4?si=wk5biAtQOkiqx_Zj • Recycling of plastic (roll no-25-30) https://youtu.be/TNMxC4yEibM?si=WdxfhzlNRkvwHhKJ • Magical chemistry tricks (roll no-31-36) https://youtu.be/yU8X-fd_zQQ?si=9gGu61T_9YEBA8V- • Use of husk (Praali) in fertilizers and cardboard(roll no-13-18) https://youtu.be/ChBXlNDs0SA?si=r6mzCMtSmZOT2a4w https://youtu.be/LOU-5ItQt6I?si=ATxWgUrxow_Rl-0q **Chapter-1** 1.The total number of ions present in 111 g of $CaCl_2$ is (a) One Mole

(b) Two Mole

(c) Three Mole

(d) Four Mole

2.If the concentration of glucose ($C_6H_{12}O_6$) in blood is 0.9 g L molarity of glucose in blood?

(a) 5M

(b) 50M

(c) 0.005 M

(d) 0.5 M

3.The empirical formula and molecular mass of a compound are CH_2O and 180 g respectively. What will be the molecular formula of the compound?

(a) $C_9H_{18}O_9$

(b) CH_2O

(c) $C_6H_{12}O_6$

(d) $C_2H_4O_2$

4.What is the mass percent of carbon in carbon dioxide?

(a) 0.034%

(b) 27.27%

(c) 3.4%

(d) 28.7%

5.Which of the following is dependent on temperature?

(a)Molarity

(b) Molality

(c) Mole fraction

(d) Mass percentage

6.What is the normality of a 1 M solution of H_3PO_4

(a) 0.5 N

(b) 1.0 N

(c) 2.0 N

(d) 3.0 N

7.Which one will have maximum number of water molecules?

(a) 18 molecules of water

(b) 1.8 grams of water

(c) 18 grams of water

(d) 18 moles of water

8.Which of the following contains the same number of carbon atoms as are in 6.0 g of carbon (C-12)?

(a) 6.0 g Ethane

(b) 8.0g Methane

(c) 21.0g Propane

(d) 28.0 g CO

9.Which is not a unit of pressure:

(a) Bar

(b) N/m^2

(c) Kg/m^2

(d) Torr

10.The significant figures in 3400 are

(a) 2

(b) 5

(c) 6

(d) 4

Assertion and Reason Questions for Some Basic Concepts of Chemistry

Directions : Each of these questions contain two statements, Assertion and Reason. Each of these questions also has four alternative choices, only one of which is the correct answer. You have to select one of the codes (a), (b),

	(c) (d)given.below. (a) Assertion is correct, reason is correct; reason is a correct explanation for assertion. (b) Assertion is correct, reason is correct; reason is not a correct explanation for assertion (c) Assertion is correct, reason is incorrect (d) Assertion is incorrect, reason is correct. **Q.1. Assertion :** Equal moles of different substances contain same number of constituent particles. **Reason :** Equal weights of different substances contain the same number of constituent particles.
	Q.2. Assertion : 1.231 has three significant figures. **Reason :** All numbers right to the decimal point are significant
	Q.3. Assertion : Volume of a gas is inversely proportional to the number of moles of gas. **Reason :** The ratio by volume of gaseous reactants and products is in agreement with their mole ratio.
	Q.4. Assertion : Significant figures for 0.200 is 3 whereas for 200 it is 1. **Reason :** Zero at the end or right of a number are significant provided they are not on the right side of the decimal point. **Q.5. Assertion :** One atomic mass unit is defined as one twelfth of the mass of one carbon – 12 atom. **Reason :** Carbon-12 isotope is the most abundant isotope of carbon and has been chosen as standard **Q.6. Assertion :** The empirical mass of ethene is half of its molecular mass. **Reason :** The empirical formula represents the simplest whole number ratio of various atoms present in a compound **Q.7. Assertion:** The number of O atoms in 16 g of oxygen and 16 g of ozone is same. **Reason:** Each of the species represent 1 g-atom of oxygen. **Q.8. Assertion:** 1 mole of sulphuric acid contains 32 g each of sulphur and oxygen element. **Reason:** 1 mole of sulphuric acid represents 98 g of the species **Q.9. Assertion:** 1 mole of H_2SO_4 is neutralised by 2 moles of NaOH but 1 equivalent of H_2SO_4 is neuralised by 1 equivalent of NaOH. **Reason:** Equivalent wt. of H_2SO_4 is half of its moleculer wt. while equivalent wt. of NaOH is 40. **Q.10. Assertion**: 1 Avogram is equal to 10 amu. **Reason**: Avogram is reciprocal of Avogadro number. **Q.11. Assertion**: The ash produced by burning Mg in air is lighther than the original mass of Mg.

Reason: Mg burns in air to produce MgO2 and Mg_3N_2.

Q.12. Assertion: Vapour density of sulphurvapour relative to oxygen is 2 because sulphur atom is twice as heavy as that of O atom.
Reason: Vapour density depends upon the molecular state of the substance in solid state.

Q.13. Assertion: Equal volumes of all the gases contain equal number of atoms.
Reason: Atom is the smallest particle which takes part in chemical reactions.

Q.14. **Assertion:** The ratio by volume of gaseous reactants and products is in agreement with their molar ratio.
Reason: Volume of a gas is inversely proportional to the number of moles of a gas.

Q.15. Assertion: One mole of SO_2 contains double the number of molecules present in one mole of O_2.
Reason: Molecular weight of SO_2 is double to that of O_2.

Q.16. **Assertion:** The compounds NaCl and CaO do not exists as discrete molecules.
Reason: For a substance that does not exist as discrete molecules, the formula weight and the molecular weight are identical.

Numericals and Questions

1.**The reactant which is entirely consumed in reaction is known as limiting reagent. In the reaction 2A + 4B —> 3C + 4D, when 5 moles of A react with 6 moles of B, then**

(i) which is the limiting reagent?
(ii) calculate the amount of C formed

.2.Define the law of multiple proportions. Explain it with two examples. How does this law point to the existence of atoms?

3If 4 g of NaOH dissolves in 36 g of H_20, calculate the mole fraction of each component in the solution. Also, determine the molarity of solution (specific gravity of solution is 1 g mL^{-1}).

4.Hydrogen gas is prepared in the laboratory by reacting dilute

HC1 with granulated zinc. Following reaction takes place:

$Zn + 2HC1 \rightarrow ZnCl_2 + H_2$
Calculate the volume of hydrogen gas liberated at STP when 32.65 g of zinc reacts with HC1. 1 mol of a gas occupies 22.7 L volume of STP; atomic mass of Zn = 65.3 u.

5. What is the symbol for SI unit of mole? How is the mole defined.

6. What is the difference between molality and molarity?

7.16 g of oxygen has the same number of molecules as in
(a) 16 g of CO
(b) 28 g of N_2
(c) 14g of N_2
(d) 1.0 gof H_2,

8.Calculate no of molecules in 50g of sugar .

Chapter-2

1. .For which of the following sets of quantum numbers, an electron will have the highest energy?

(a) 3, 2, +1, +1/2(b) 4, 2, -1, +1/2

(c) 4, 1, 0, -1/2(d) 5, 0, 0, +1/2

2.Which of the following orbitals has dumb-bell shape?

(a) s(b) p(c) d(d) f

3.Which of the following atoms or atoms/atom-ion/ions have identical ground state configuration?

(a) Li^+ and He^+ (b) Cl^- and Ar

(c) Na and K(d) F^+ and Ne

4.Number of angular nodes for 4d orbital is _____.

(a) 4(b) 3(c) 2(d) 1

5.The number of radial nodes for 3p orbital is _____.

(a) 3(b) 4(c) 2(d) 1

6.The number of spherical nodes for 4d orbital is

(a) zero(b) one(c) two(d) three

7.Azimuthal quantum number defines:

(a) e/m ratio of electron(b) spin of electron

(c) angular momentum of electron

(d) magnetic momentum of electron

8.The configuration $1s^2\ 2s^2\ 2p^5\ 3s^1$ shows:

(a) ground state of fluorine(b) exited state of fluorine

(c) exited state of neon(d) exite state of O^{2-} ion

9.The total number of orbitals in a shell having principal quantum number n is

(a) 2n(b) n^2(c)$2n^2$ (d)n^{+1}

10.The correct order of increasing energy of atomic orbital is:

(a)5p<4f<6s<5d(b)5p<6s<4f<5d

(c)4f<5p<5d<6s(d)5p<5d<4f<6s

Directions : Each of these questions contain two statements, Assertion and Reason. Each of these questions also has four alternative choices, only one of which is the correct answer. You have to select one of the codes (a), (b), (c) and (d) given below.
(a) Assertion is correct, reason is correct; reason is a correct explanation for assertion.
(b) Assertion is correct, reason is correct; reason is not a correct explanation for assertion
(c) Assertion is correct, reason is incorrect
(d) Assertion is incorrect, reason is correct.

Q.1. Assertion : All isotopes of a given element show the same type of chemical behaviour.
Reason : The chemical properties of an atom are controlled by the number of electrons in the atom.

Q.2. Assertion : It is impossible to determine the exact position and exact momentum of an electron simultaneously.
Reason : The path of an electron in an atom is clearly defined.

Q.3. Assertion : The position of an electron can be determined exactly with the help of an electron microscope.
Reason : The product of uncertainty in the measurement of its momentum

	and the uncertainty in the measurement of the position cannot be less than a finite limit. **Q.4. Assertion :** Black body is an ideal body that emits and absorbs radiations of all frequencies. **Reason :** The frequency of radiation emitted by a body goes from a lower frequency to higher frequency with an increase in temperature. **Q.5. Assertion :** The radius of the first orbit of hydrogen atom is 0.529Å. **Reason :** Radius of each circular orbit (rn) – 0.529Å (n^2/Z), where n = 1, 2, 3 and Z = atomic number.

Physics	1) Revise and practice num of unit & dimensions, motion in straight line, motion in plane. 2)Assignment on unit & dimensions, motion in straight line, motion in plane 3)**Working Models** 1.Diy electric generator (1-5) 2. Small scale telescope(6-10) 3.Microscope (11-15) 4. Small scale motor(in working) (16- 20) 5. Portable small scale vaccum(21-25) 6. Hydraulic lift (26-30) 7. Hydraulic hospital bed (31-35) 8. Project based on Bernoulli principle(36-40) **Model details:** 1. Diy electric generator • **Understanding Electromagnetic Induction**: Demonstrate how moving a coil within a magnetic field induces an electric current according to Faraday's law of electromagnetic induction. • **Exploring Generator Components**: Identify and understand the key components of an electric generator, including the coil, magnets, and rotating shaft. • **Learning about Magnetism**: Gain insight into the properties of magnets, including their poles, magnetic fields, and the interaction between magnets and conductors. • **Practicing Hands-On Skills**: Develop practical skills by constructing a physical model, which involves tasks such as coil winding, magnet placement, and wiring. • **Applying Physics Principles**: Apply concepts learned in class, such as the right-hand rule, Lenz's law, and the relationship between magnetic flux and induced voltage, to understand the operation of the generator. **Link1: https://youtu.be/4q-3d-KFfik?si=1kXcnsuji2VF5vcB** **Link2: https://youtu.be/b7L5GyWviKk?si=MX_GMUQxymVrFPAx** **2. Small scale telescope :** • **Understanding Optics**: Learn about the principles of optics,

	including reflection, refraction, and focal length, by constructing and using a simple telescope. • **Hands-On Construction**: Develop practical skills by assembling telescope components, such as lenses, tubes, and mounts, and understanding how they work together to form images. • **Improving Problem-Solving Skills**: Enhance problem-solving skills by troubleshooting issues related to telescope alignment, focusing, and stability, and devising solutions to optimize performance. • **Learning about Scale and Measurement**: Understand concepts related to scale, distance, and measurement by estimating the size, distance, and brightness of celestial objects observed through the telescope. Link:https://youtu.be/O42_jRaX1fI?si=av5oSXcPfR8sdStd **3. Microscope** • **Learning Optics Concepts**: Explore fundamental concepts of optics, such as the behavior of light rays passing through convex lenses, focal length, and image formation. • **Practicing Construction Skills**: Develop practical skills by assembling microscope components, including lenses, base, and stand, and ensuring their proper alignment and stability. • **Experimenting with Magnification**: Experiment with different combinations of lenses and distances to achieve various levels of magnification and observe their effects on the clarity and size of the image. • **Exploring Specimen Preparation**: Learn techniques for preparing specimens suitable for microscopic observation, such as mounting thin sections of biological or non-biological materials on slides. **Link**: https://youtu.be/1-Jr46nrm6k?si=hgqZPO6s5DULYJA8 **4. small scale motor**: • **Understanding Electromagnetism**: Gain insight into the principles of electromagnetism, including how electric currents produce magnetic fields and how magnetic fields exert forces on electric currents.

- **Exploring Motor Components**: Identify and understand the key components of an electric motor, such as the armature, commutator, brushes, and magnetic field, and their roles in generating motion.

- **Applying Physics Concepts**: Apply concepts learned in class, such as Fleming's left-hand rule, the interaction between magnetic fields and electric currents, and the conversion of electrical energy into mechanical energy, to understand the operation of the motor.
- **Experimenting with Motor Design**: Experiment with different motor designs, coil configurations, wire gauges, and magnetic field strengths to optimize motor performance, speed, and efficiency.
- **Testing and Troubleshooting**: Conduct experiments to test the performance of the motor prototype, identify potential issues or limitations, and troubleshoot problems to improve functionality and reliability.
- **Link**: https://youtu.be/qnhReMd7dAk?si=6pqmDIyZC9XUVTbe

5. Portable small scale vaccum:

- **Understanding Vacuum Concepts**: Gain insight into the properties and behavior of vacuum, including its definition, creation, and applications in science and technology.
- **Exploring Pressure and Atmosphere**: Learn about atmospheric pressure and its effects on objects and fluids, as well as the concept of negative pressure or suction in creating a vacuum
- **Practicing Hands-On Construction**: Develop practical skills by designing and assembling a vacuum chamber model from materials such as glass or plastic containers, seals, and vacuum pump components.
- **Experimenting with Vacuum Creation**: Experiment with different techniques for creating a vacuum within the chamber, such as manual pumping, suction, or using a vacuum pump, and observe the effects on pressure and volume.
- **Demonstrating Applications of Vacuum**: Showcase various applications of vacuum technology in everyday life and industry, such as vacuum cleaners, vacuum packaging, vacuum tubes, and vacuum distillation.

Link: https://youtu.be/yF7b1dJvR64?si=tzx0-SkP4yi_GGKd

6. **Hydraulic lift :**

- **Understanding Hydraulic Principles**: Gain insight into the principles of hydraulics, including Pascal's law, fluid pressure, and the transmission of force through confined fluids.
- **Exploring Mechanical Systems**: Identify and understand the key components of a hydraulic lift system, including the hydraulic fluid, cylinders, pistons, valves, and hydraulic pump.
- **Practicing Hands-On Construction**: Develop practical skills by designing and assembling a hydraulic lift model from materials such as syringes, tubing, wooden or plastic boards, and sealing mechanisms.
- **Applying Physics Concepts**: Apply concepts learned in class, such as force, pressure, work, and energy, to understand the operation of the hydraulic lift system and its mechanical advantages.
- **Experimenting with Fluid Mechanics**: Experiment with different parameters of the hydraulic system, such as cylinder diameter, piston area, hydraulic fluid viscosity, and pump displacement, to observe their effects on lift performance.
- **Demonstrating Mechanical Advantage**: Showcase the concept of mechanical advantage in hydraulic systems by comparing the force applied to the input piston with the force exerted by the output piston, taking into account the difference in area between the two pistons.
- **Investigating Applications of Hydraulic Systems**: Explore various applications of hydraulic technology in everyday life and industry, such as automotive brakes, heavy machinery, elevators, and hydraulic presses.

Link: https://youtu.be/QTPK-ICVGKI?si=dqupv2C59doZ60Xt

7. **hydraulic hospital bed:**

- **Understanding Medical Equipment Design**: Gain insight into the design and functionality of hospital beds, including features such as adjustable height, backrest, leg elevation, and tilt.
- **Exploring Hydraulic Systems**: Identify and understand the key components of a hydraulic hospital bed, including hydraulic cylinders, pumps, valves, and control mechanisms, and their roles in adjusting bed positions.
- **Applying Physics and Engineering Concepts**: Apply principles of mechanics, fluid dynamics, and engineering design to optimize the performance, stability, and safety of the hydraulic bed system.

- **Experimenting with Bed Adjustments**: Experiment with different hydraulic configurations, cylinder sizes, pressure levels, and control mechanisms to observe their effects on bed movement, speed, and smoothness.
- **Demonstrating Patient Comfort and Safety**: Showcase the importance of patient comfort and safety by designing features such as padded surfaces, adjustable rails, and secure locking mechanisms to prevent accidents and injuries.
- **Enhancing Presentation and Communication Skills**: Develop communication skills by presenting project findings, explaining the scientific principles behind hydraulic bed technology, discussing design considerations, and sharing insights with classmates.

Link: https://youtu.be/jbmR07a9JI8?si=lTaWIm_5L-49Byk-

8. **hydraulic crane:**

- **Exploring Hydraulic Technology**: Identify and understand the key components of a hydraulic crane, such as hydraulic cylinders, pumps, valves, hoses, and actuators, and their roles in lifting and moving heavy loads.
- **Practicing Engineering Design**: Develop practical skills by designing and assembling a hydraulic crane model from materials such as wood, plastic, syringes, tubing, and hydraulic fluid, while ensuring stability, strength, and functionality.
- **Applying Physics Concepts**: Apply principles of mechanics, fluid dynamics, and engineering design to optimize the performance, efficiency, and safety of the hydraulic crane system.
- **Experimenting with Load Capacity**: Experiment with different hydraulic configurations, cylinder sizes, pressure levels, and boom lengths to observe their effects on the crane's lifting capacity, reach, and stability.
- **Demonstrating Mechanical Advantage**: Showcase the concept of mechanical advantage in hydraulic systems by comparing the force applied to the input piston with the force exerted by the output piston, taking into account the difference in area between the two pistons.
- **Investigating Crane Applications**: Explore various applications of hydraulic cranes in construction, manufacturing, logistics, and other industries, as well as their importance in lifting and moving heavy objects safely and efficiently.

Link: https://youtu.be/zHNu7OycW7Q?si=ncCrfksJa1om8bfB

Assignment

1. In the expression $\left(P+\frac{a}{v^2}\right)(v-b)=RT$

P is pressure and V is the volume. Calculate the dimensions of a and b.

2. Which of the following is dimensional constant?

a) Relative density b) gravitational constant

C) refractive index d) poison ratio

3. Which of the following pair doesn't have similar dimensions?

A) Stress and pressure

B) Angle and strain

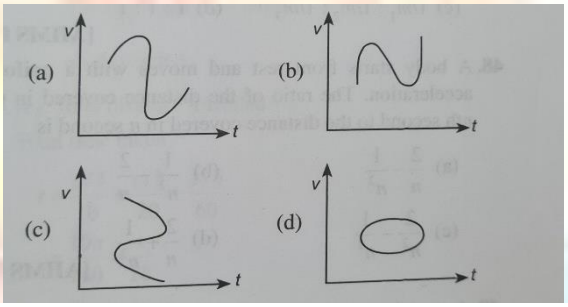
C) Tension and surface tension

D) Planks constant and angular momentum

4. A body dropped from top of a tower falls 40 m during the last 2 seconds of its for the height of the tower is

a) 60m b)45m cl)80m. Iv) 50m

5. Which of the following v-t graph shows a realistic situation for a body in motion?



6. Fig. Shows the distance time graph of two trains which starts moving simultaneously in the same direction. From graph find out :

a) How much B is ahead of A?

b) What is the speed of B?

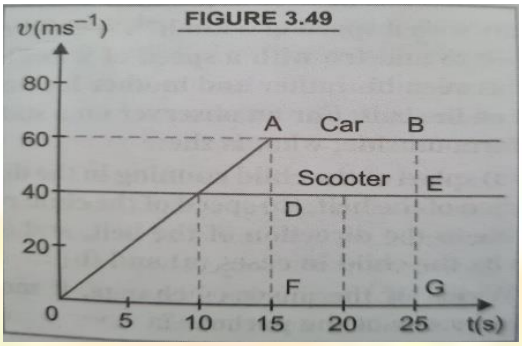
c) When and where A will catch B ?

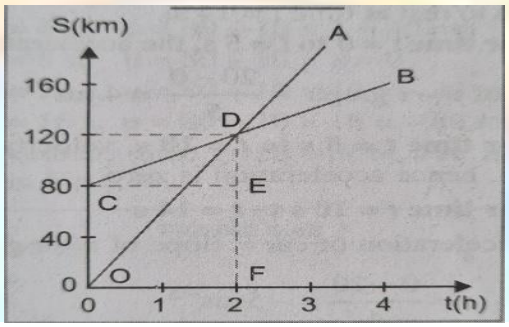
d) What is the difference in speed of A and B?

7. Prove that the distances traversed during equal Intervals of time by a body falling from rest, stand to one another in the same ratio as the odd numbers beginning with unity [namely 1:3:5:7…..]

8. As soon as a car starts from rest in a certain direction,a scooter moving with a uniform speed overtakes the car..their velocity time graph are shown below.calculate;

FIGURE 3.49





A) The difference between distance travelled by car and the scooter.

B) The time when car will catch up the scooter.

C) The distance of the car and scooter from the starting point at the meeting point.

9. Assertion: acceleration of a body due to gravity in vaccum is same irrespective of size and mass of body.

Reason: the acceleration due to gravity depend upon the mass and radius of the earth.

10. Assertion: Earth revolving around the sun is a three dimensional moion.

Reason: for the earth revolving around the sun x,y and z coordinates are changing with time.

11. Find theee scalar and vector product of two vectors

A= 3i-4j+5k and B=-2i+j-3k.

12. Determine sine of angle between 2i+3j-4k and i-2j+2k..

13. When a unit vector n=ai+bj is perpendicular to I+j,then values of a and b are

a) 1 & 0

b) -2 & 0

c) 3 & 0

d) 1/√2 &

14. A Cricket ball is thrown at a speed of 28 m per second in a direction 30 degree above the horizontal. Calculate A) the maximum height. B) the time taken by the ball to return to the same level. C) the distance from the thrower to the point where the ball returns to

the same level.

15. The position of a particle is given by $r=3ti-2t^2j+4k$ meters, where t is in seconds and the coefficient have the proper units for r to be in metres.

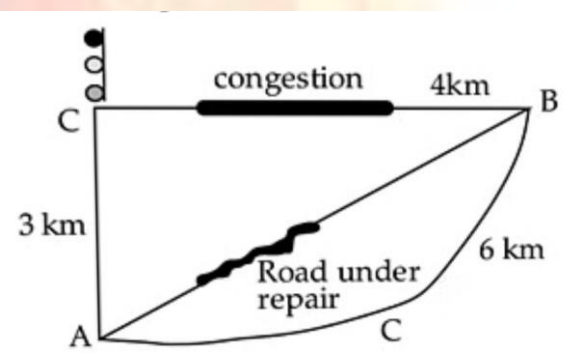
(a) Find the v and a of the particle?

(b) What is the magnitude and direction of velocity of the particle at t=2s.?

16. A boy throws a ball in air at 60 degree to the horizontal along a road with a speed of 10 m per second (36 km per hour) . Another boy sitting in a passing by car observes the ball. Sketch the motion of the ball as observed by the boy in the car, if car has a speed of 18 km per hour. Give explanation to support your diagram.

17. Case based questions:

Tabu lives at A. He was supposed to go to his uncle's house at B.A and B is connected by straight road 5km long. But that day road was under repair. So, all the buses were following diversion via C. A to B via C is 7 km. Moreover this route is conjusted.There is a traffic signal at C also. Tabu got the seat just behind the driver.He noticed that minimum reading in the speedometer Was 15km/h. But ultimately the bus took 1hr to reach B. He could not understand the fallacy.



(I) What is the distance and displacement of Tabu?

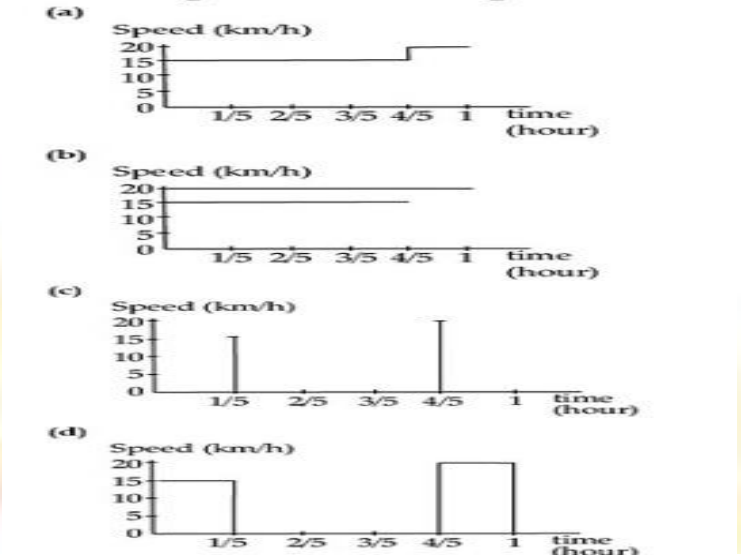
A)7km,5km

B)5km,7km

C)5km,5km

D)7km,7km

(ii) Which of the following graphs represents the motion of the bus if it covers AC distance at a speed 15 km/h, CB distance at a speed 20 km/h and total distance is covered in 1 hour including halt at traffic signal



18. Projectile is the name given to a body thrown with some initial velocity with the horizontal direction and then allowed to move in two dimensions under the action of gravity alone, without being propelled by any engine or fuel. A projectile moves under the combined effect of two velocities: one a uniform velocity in the horizontal direction and other a uniformly changing velocity. It is observed that path of projectile which is known as trajectory is parabolic in shape.

(i) Does the time of flight, horizontal range and maximum height depend on the mass of the projectile?

(ii) State the relation between the maximum height attained by the projectile and the maximum range.

(iii) What is the angle between velocity and acceleration at the highest point of projectile path?

(iv) A body is projected with velocity u at angle e with the horizontal, what would be the angle and speed of projectile when it strike at the ground at same horizontal plane from which it is projected?

(v) What are the angles of projection for same initial velocity of projection at which horizontal range of the projectile is same?

(vi) Write the equation of the path of projectile, projected at angle e with initial velocity u, from a horizontal plane.

19. Assertion : In projectile motion, the angle between the instantaneous velocity and acceleration at the highest point is 180°.

Reason : At the highest point, velocity of projectile will be in horizontal direction only.

20. Assertion : The maximum horizontal range of projectile is proportional to square of velocity.

Reason : The maximum horizontal range of projectile is equal to maximum height attained by projectile.

BIOLOGY

Revise Chapter: Animal Kingdom, Plant kingdom . Do the Assignment given

Models list

Animal kingdom : Roll no. 1,2

- Create Animal kingdom model representing various animals.
- Include different species.
- Explain the significance of biodiversity.
- https://youtu.be/boxoxDGCTv8

Working model of Brain : Roll no. 3,4

- Design a working model that demonstrates the structure and function of the brain.
- Illustrate major parts such as the cerebrum, cerebellum, and brainstem.
- Explain the role of different brain regions in controlling bodily functions and behavior.
- https://youtu.be/HI4fJ0bTspQ

Human skeleton system model: Roll no. 5,6

- Develop a model that demonstrates all the bones present in Humans.
- Highlight the main bones.
- Discuss the Diseases related to bones and their effect on body.
- https://youtu.be/zCza3HvyCK0

Model of 3D organ Printer: Roll no. 7,8,9,13

- 3D bioprinting has emerged as a promising new approach for fabricating complex biological constructs in the field of tissue engineering and regenerative medicine.
- 3D bioprinting organs for fulfilling demands of organ shortage, cell patterning for better tissue fabrication, and building better disease models.
- https://youtu.be/cnHIojws0Eg?si=NTnb7kduyz2oHzRZ

Model Hydroponics using plastic waste: Roll no. 10,11,12

- It involves gathering used **plastic** bottles and reusing them to cultivate plants through hydroponics. Hydroponics is a method of horticulture in which plants grow in nutrient-rich water instead of soil.
- https://youtu.be/PaoMduWaaPo

Assignment

Chapter:AnimalKingdom, Plant kingdom

1. Two common characters found in centipede, cockroach and crab are:
   (a) Jointed legs and chitinous exoskeleton
   (b) Green gland and tracheae
   (c) Book lungs and antennae
   (d) Compound eyes and anal cerci
2. The lips of Ascaris are-
   (a) Bony
   (b) Smooth
   (c) Cartilagenous
   (d) Denticulate
3. Ascaris male is:
   (a) Didelphic
   (b) Monodelphic
   (c) Polydelphic
   (d) None of the Above

4. Mosquito (Anopheles) is
   (a) Exogenous host for Plasmodium
   (b) Endogenous host for Plasmodium
   (c) Initial host
   (d) None of the above
5. Which plant kingdom can survive both on land and in the water?
   (a) Tracheophyta
   (b) Pteridophyta
   (c) Thallophyta
   (d) Bryophyta

6. A plant that has seeds but no flowers and fruits?
   (a) Bryophytes
   (b) Gymnosperms
   (c) Mosses
   (d) Pteridophytes

7. Pteridophytes differ from mosses in
   (a) Independent gametophyte
   (b) Dependent gametophyte
   (c) Flagellate antherozoids
   (d) Independent and dominant sporophyte

8. Plants reproducing by spores are grouped under
   (a) Bryophytes
   (b) Sporophytes
   (c) Cryptogams
   (d) Thallophytes

9. Plants having vascular tissue without seeds
   (a) Angiosperm
   (b) Pteridophytes
   (c) Bryophytes
   (d) Gymnosperms

10. Pick the mismatched pair
   (a) Cycas – Dioecious
   (b) Equisetum – Homosporous
   (c) Salvinia – Heterosporous
   (d) Pinus – Dioecious

11. What is open and closed type of circulator system?

12. Which type of symmetry do the following animals have, explain the symmetry also:- sponges,echinoderms,annelids.

13. Define coelom.Give e.g.of animals who are coelomates.

14. Give flow chart of classification of animals.

15. Explain the terms of Phylum Porifera:-Water canal system, coenocytes & types of skeleton sponges have.

16. (a)In which phylum do you find endoblasts? What is its function?
(b)What is bio lumine?

17. What are the functions of parapodia & nephridia?

18. Which is the largest phylum of Animalia?

19. Describe the following features of anarth ropod (a)Body exo skeleton (b)appendages (c)organs of respiration, balance organs & organs of excretion.

20. Give characteristic features of Phylum Mollusca.

21. Which are the most distinctive features of an Echinoderm?

22. Define phylogenetic classification systems, numerical taxonomy, cytotaxonomy and chemotaxonomy.

23. Name two algae from which agaris obtained.give commercial use of

	agar. **24.** Name two unicellular algae rich in proteins & which are used as protein supplements by space travelers. **25.** List the name divisions of kingdom Algae & give their characteristics.
Mathematics	1. Practice ch- 1(Sets),ch-2(Relation and Functions),Ch- 3(Trigonometric Functions),ch-4 (Complex number), ch-5(Linear inequalities) 2. Write 5 activities in Maths lab manual book.(Bharat Pub.) (i) To represent operations on sets using venn diagram. (ii) To verify distributive law of three given non empty sets P,Q,R. (iii) To verify that for two sets A and B, n (A x B) = pq and the total number of relations from A to B is 2^{pq} ,where n(A) = p and n(B) =q. (iv) To interpret geometrically the meaning of i= squart(-1) and its integral powers. (v) To find the number of ways in which three balls can be selected from given five balls. **Charts** **1. Angles between pair of lines (alternate angles, V.O.A, Co- interior angles etc) (Roll no. 14-17)** **2. Polynomials (Types of Polynomials and their explanation) (Roll no. 18-21)** **3. Pythagoras Theorem (Roll no. 22-25)** **4. Coordinate Geometry (Quadrant) (Roll no. 26-30)** **5. Trigonometric functions (Important formulas) (Roll no. 31-35)** **6. Applications of Trigonometric functions (Angle of elevation and depression) (Roll no. 36-40)** **7. Number system (Roll no. 41-46)** **Mathematics Assignment** **Class – XI** **1. The value of $1 + i^2 + i^4 + i^6 + \ldots + i^{2n}$ is**

(a) positive (b) negative (c) 0 (d) cannot be evaluated.

2. If a + ib = c + id, then

(a) $a^2 + c^2 = 0$ (b) $b^2 + c^2 = 0$

(c) $b^2 + d^2 = 0$ (d) $a^2 + b^2 = c^2 + d^2$

3. If a complex number z lies in the interior or on the boundary of a circle of radius 3 units and centre (– 4, 0), the greatest value of |z +1| is

(a) 4 (b) 6 (c) 3 (d) 10.

4. If $[(1 + i)/(1 – i)]^x = 1$, then

(a) x = 2n + 1, where n ∈ N (b) x = 4n, where n ∈ N

(c) x = 2n, where n ∈ N (d) x = 4n + 1, where n ∈ N

5. If the complex number z = x + iy satisfies the condition |z + 1| = 1, then z lies on

(a) x-axis (b) circle with centre (1, 0) and radius 1

(c) y-axis (d) circle with centre (–1, 0) and radius 1

6. The simplified value of $(1 – i)^3/(1 – i^3)$ is

(a) 1 (b) -2 (c) –i (d) 2i

7. sin x + i cos 2x and cos x – i sin 2x are conjugate to each other for:

(a) x = nπ (b) x = [n + (1/2)] (π/2)

(c) x = 0 (d) No value of x

8. The length of a rectangle is three times the breadth. If the minimum perimeter of the rectangle is 160 cm, then

(a) breadth > 20 cm (b) length < 20 cm

(c) breadth x ≥ 20 cm (d) length ≤ 20 cm

9. If – 3x + 17 < – 13, then

(a) x ∈ (10, ∞) (b) x ∈ [10, ∞)

(c) x ∈ (– ∞, 10] (d) x ∈ [– 10, 10)

10. Given that x, y and b are real numbers and x < y, b < 0, then

(a) x/b < y/b (b) x/b ≤ y/b (c) x/b > y/b (d) x/b ≥ y/b

11. If $|x - 1| > 5$, then

(a) $x \in (-4, 6)$ (b) $x \in [-4, 6]$

(c) $x \in (-\infty, -4) \cup (6, \infty)$ (d) $x \in [-\infty, -4) \cup [6, \infty)$

12. If $|x - 7|/(x - 7) \geq 0$, then

(a) $x \in [7, \infty)$ (b) $x \in (7, \infty)$ (c) $x \in (-\infty, 7)$ (d) $x \in (-\infty, 7]$

13. If $|x + 3| \geq 10$, then

(a) $x \in (-13, 7]$ (b) $x \in (-13, 7]$

(c) $x \in (-\infty, -13] \cup [7, \infty)$ (d) $x \in [-\infty, -13] \cup [7, \infty)$

14. If $4x + 3 < 6x + 7$, then x belongs to the interval

(a) $(2, \infty)$ (b) $(-2, \infty)$ (c) $(-\infty, 2)$ (d) $(-4, \infty)$

15. Solving $-8 \leq 5x - 3 < 7$, we get

(a) $-1/2 \leq x \leq 2$ (b) $1 \leq x < 2$

(c) $-1 \leq x < 2$ (d) $-1 < x \leq 2$

16. Assertion (A) : Let $A = \{1, 2, 3\}$ and $B = \{1, 2, 3, 4\}$. Then, $A \subset B$.

Reason (R) : If every element of X is also an element of Y, then X is a subset of Y.

17.Assertion (A) : The interval $\{x : x \in R, -4 < x \leq 6\}$ is represented by $(-4, 6]$.

Reason (R) : The interval $\{x : x \in R, -12 < x < -10\}$ is represented by $[-12, -10]$.

18.Assertion (A) : Set of English alphabets is the universal set for the set of vowels in English alphabets.

Reason (R) : The set of vowels is the subset of set of consonants in the English alphabets.

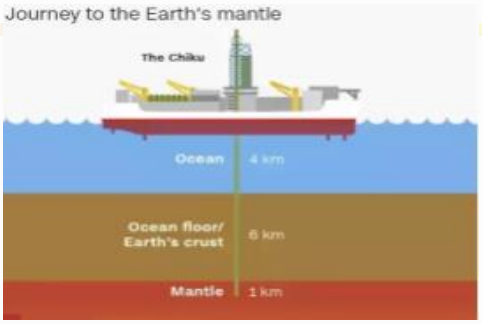
19.Assertion (A) : The power set of the set {1,2} is the set {φ, {1}, {2}, {1,2}}.

Reason (R) : The power set is set of all subsets of the set.

21. In drilling world's deepest hole, the Kola Superdeep Borehole, the deepest manmade hole on Earth and deepest artificial point on Earth, as a result of a scientific drilling project, it was found that the temperature T in degree Celsius, x km below the surface of Earth, was given by:

$T = 30 + 25 (x - 3)$, $3 < x < 15$.

If the required temperature lies between 200° C and 300° C, then



1. the depth, x will lie between

   (a) 9 km and 13 km (c) 9.8 km and 13.8 km

   (b) 9.5 km and 13.5 km (d) 10 km and 14 km

2. Solve for x. $-9x+2 > 18$ OR $13x+15 \leq -4$

   (a) $x \leq -1913$ (c) $x < -1613$

   (b) $-1613 < x < -1913$ (d) There are no solution.

3. If $|x| < 5$ then the value of x lies in the interval

   (a) $(-\infty, -5)$ (c) $(\infty, 5)$

   (b) $(-5, \infty)$ (d) $(-5, 5)$

AI	

Revise Ls-1,2,3 Unit-3 AI

Model

Prepare the model of AI based Housing Society.
For reference please check the link given below:

https://youtu.be/HhrSzV2PdbA?si=o5QLsau1YXa34kDG

Assignment

Q1.**Choose the Active sentence**

a.Sita is said to be mad
b. They say that Sita is mad
c. They said that Sita is mad
d. Sita was said to be mad

Q2.Key-board is a-------device.
a.Output b.Input c.Both (a) & (b)
d.None of these

Q3.What is the full form of FTP?
a.File Transfer Protocol b.File Typical Protocol
c.Frequent Transfer Protocol d.First Time Protocol

Q4.Which of the following two are the parts of CPU?
a.Control Unit b.Printer and Main Memory
c.Control Unit & ALU d.ALU and Input device

Q5.BCC option is used to send a copy of e-mail to ……..
a.A blind person
b.Several people without letting them know sender's address
c.Several people without letting the other recipients know
d.All of these

Q6.In oral communication the speaker can observe the listener's being elated.

a.Response b.Rejection c.Reaction
d.Reset

Q7.MICR is mostly used –

a.Bank b.Railway

c.To check examination d.All of above

Q8.Binary code are also known as …….

a.Assembly language b.High level language

c.Procedural language d.Machine language

View Answer

Q9.A ……. is a word which connects words phrases, clauses or sentences.

a.Preposition b.Conjunction c.Interjection d.Verb

Q10.Microsoft window is an ……

a.An operating system b. Graphic program

c.Word processing d. Data base program

Q11. What is Artificial Intelligence?

a) Artificial Intelligence is a field that aims to make humans more intelligent

b) Artificial Intelligence is a field that aims to improve the security

c) Artificial Intelligence is a field that aims to develop intelligent machines

d) Artificial Intelligence is a field that aims to mine the data

Q12. Who is the inventor of Artificial Intelligence?

a) Geoffrey Hinton b) Andrew Ng

c) John McCarthy d) Jürgen Schmidhuber

Q13. What is the goal of Artificial Intelligence?

a) To solve artificial problems

b) To extract scientific causes

c) To explain various sorts of intelligence

d) To solve real-world problems

Q14. Which of the following is an application of Artificial Intelligence?

a) It helps to exploit vulnerabilities to secure the firm

	b) Language understanding and problem-solving (Text analytics and NLP) c) Easy to create a website d) It helps to deploy applications on the cloud **Q15. Which of the following is not a type of Artificial Intelligence agent?** a) Learning AI agent b) Goal-based AI agent c) Simple reflex AI agent d) Unity-based AI agent
Physical Education	**Complete the below mentioned practical in your practical file:** **1.Athletic Track(400m)** **2.One Game of your choice. Draw the diagram.** **3. Five any Yoga Asanas.** **4.Shot Put(Circle)** **5.Long Jump (Pit)**
Music	**Revise the work done in the class.**