



SUMMER VACATION

Holiday Homework
Grade - XII Humanities





"The holiday season is a perfect time to reflect on blessings and take out ways to make life better for those around us"

Summer vacations is the most awaited time for parents and kids alike. During this academic session 2021-22, our students are well connected with teachers virtually. We, team members of Lotus Valley, understand it very well that presently our proximity to resources is limited. Considering this, we tried to keep "Summer Holidays Homework" simple, informative but interesting as well so that our students love to spend their time in completing it under guidance of their teachers.

The summer vacation begins from 17th May, 2021 and school will reopen on 3rd June, 2021. Parents can download holidays homework from school's website i.e www.lotusvalley.edu.in or Ecare- App.

It is the time of the year again when we can do things which we are unable to do during the regular routine days. Here are few suggestions for parents:-

- Make sure that you are spending quality time with your wards amidst this tensed environment. It is very important to keep their anxiety at minimum.
- Giving them small responsibilities in household chores will aid them to be independent.
- Teach them the importance of moral values in their life.
- Keeping in view the prevailing situation, indulge yourself in various indoor games with them.

Also students can :-

- Read book, May it be fairy books, encyclopedia or comic books. Explore the imaginative world and go on a fantasy tour.
- Run, exercise, sweat! Channelize your energy and enjoy playing indoor games.
- Enhance communication skills by conversing with your friends and family in English.
- Explore the culture and heritage of the world by visiting heritage sites virtually. Download the app "Google Earth" and enjoy virtual tours around the Earth.

Wish you all a fun filled, safe and healthy holidays ahead!



ASSIGNMENTS

Instructions for completing assignments-

- All the assignments are to be done in subject notebooks with proper date and headings.
- After completing the assignments of each subject, students are required to make pdf of assignments with their name, class and rollno. and have to submit the same to their respective subject teachers.
- The written part should be neatly presented in student's handwriting. Take the help of your parents if necessarily required.
- Remember a well presented 'Holiday Homework' fetches your marks and appreciation of your teachers and classmates.
- Revise all the work done in class till date.

ENGLISH

Assignment - I

1. Standing a few yards away,

**I looked again at her, wan, pale
as a late winter's moon and felt that old
Familiar ache, my childhood's fear**

- (a) Who is 'I' in the above extract? Whom does she look at? Why?
- (b) Identify the poetic device in the third line.
- (c) What childhood fear did the poet have?
- (d) Why does the poet call her ache "familiar"?

2. and felt that Old

**familiar ache, my childhood's fear,
but all I said was, see you soon, Amma,
all I did was smile and smile and smile. . . .**

- (a) What was the poet's fear? Why does she call it a childhood fear?
- (b) "but all I said". What do these words tell you about the poet's state of mind?
- (c) Explain the irony in the expression "see you soon".
- (d) What kind of smile did the poet put on?

3. "My friends," said he, "I-I-" But something choked him. He could not go on.

Then he turned to the blackboard, took a piece of chalk, and, bearing on with all his might, he write as large as he could –

- i. Where does this conversation take place?
- ii. Who does 'I' and 'My friends' respectively refer to?
- iii. Why does the speaker feel choked?
- iv. What did the speaker write on the blackboard?

4. And yet, for these

Children, these windows, not this map, their work,
Where all their future's painted with a fog,
A narrow street sealed in with a lead sky
Far far from rivers, capes, and stars of words.

- (a) What do the 'Windows' signify here?
- (b) Why is their future painted with a fog?
- (c) What images does the poet use to highlight the polluted atmosphere in the cities?
- (d) What do the slum children crave for?
- (e) Do you think they can ever get rid of this situation? How?

5. Surely, Shakespeare is wicked, the map a bad example,

With ships and sun and love tempting them to steal-
For lives that slyly turn in their cramped holes
From fog to endless night?

- (a) What kind of education is being provided in slum schools?

- (b) What does the hope for a better life compel the children to do?
 - (c) Where do these children spend their life?
 - (d) How does the poet suggest that they lead a tireless life?
6. Give examples to show that slum children lead an unhygienic life.
 7. What are the slum children deprived of? What are their inquisitive eyes searching for?
 8. Why are the slum children 'stunted' and 'diseased'?
 9. Why is the poet critical of the modern cities?
 10. What is the world confined to for the slum children?
 11. How do these children view the world around them?
 12. How has the poet voiced his criticism of the post-Second World War scenario?
 13. Where is the poet going and why? Why is the mother accompanying her?
 14. What is dilemma in the poet's mind?
 15. What do you think the poet's mother's thoughts were before she dozed off in the car?
 16. What is the contrast between the scene inside the car and outside it?
 17. What different images and symbols does the poet use to convey the idea of her mother's old age and imminent death?
 18. How does the poem bring out the irony of human relationships?
 19. Do you think the poet's mother expected her daughter to stay back with her to look after her? Give reason in support of your answer.
 20. describe the background in which "The Last Lesson" has been set.
 21. Why did the narrator want to run away and spend the day outdoors? Did he overcome his temptation?
 22. Why was there a crowd in front of the bulletin-board at the town hall? Why did people usually come there?
 23. Was blacksmith Wachter really making fun of the narrator when he saw him hurrying towards school?
 24. What had the narrator counted upon on reaching school? What did he find on the contrary?
 25. Did the teacher's words, "We were beginning without you" have deeper connotations? Explain.

Assignment - II

Answer the following questions in about 30-40 words each:

- Q1. What would, according to Charley, the presidents of the New York Central swear? Why does he contradict them?
- Q2. "But that's the reason he said, and my friends all agreed." What problem is referred to in the above line? What reason of the problem is being cited here?
- Q3. Why does Charley say it is easy to get lost at the Grand Central Station?
- Q4. How did Charley land up at the third level of the Grand Central Station?
- Q5. What was peculiar about the third level of the Grand Central Station?
- Q6. Why did Charley want to go to Galesburg?
- Q7. How did Charley ensure that the third level at the Grand Central Station belonged to the past?
- Q8. What did Charley do to be able to buy tickets to Galesburg? Why couldn't he still buy tickets?
- Q9. Why did Charley and his wife begin searching for the third level?
- Q10. Did Louisa love Charley? Give instances to support your answer.
- Q11. What role does Sam's letter play in the story "The Third Level"?
- Q12. What was Sam's occupation? What business did he wish to have?
- Q13. What did Charley find in his oldest first-day covers one day?

Answer the following questions in about 150 words each:

- Q14. How does Jack Finney create the atmosphere of late nineteenth century in the story "The Third Level"?
- Q15. Briefly describe two unbelievable incidents in the story "The Third Level" and explain why you think they are unbelievable?
- Q16. What is the metaphorical meaning of the 'third level'? Did Sam actually find it? Give reasons for your answer.

HINDI

Assignment – I

क) निम्नलिखित प्रश्नों के उत्तर 30 से 35 शब्दों में लिखिए:-

- 1) कवि ने "कविता के बहाने" कविता को किसके सम्मान और क्यों माना है?
- 2) बच्चा सब घर एक कैसे कर देता है?
- 3) अपाहिज कैमरे के सामने क्यों रो पड़ता है?
- 4) अपाहिज से कौन सा प्रश्न बार-बार पूछा जाता है और कौन सा नहीं?
- 5) लेखिका ने भक्तिन के सेवा धर्म की तुलना किससे की है क्यों?
- 6) भक्तिन का स्वभाव कैसा बन गया था?
- 7) राजा साहब ने लुट्टन को क्यों सहारा दिया था ? उसकी दुर्गति का क्या कारण था?
- 8) "काले मेघा पानी दे" संस्मरण के आधार पर लेखक की देशभक्ति की भावना का चित्रण कीजिए।

ख) निम्नलिखित प्रश्नों का उत्तर 50 से 60 शब्दों में दीजिए:-

- 1) रात्रि की विभीषिका को कौन भंग करती थी और कैसे?
- 2) "दिन जल्दी जल्दी ढलता है" कविता का मूल भाव व प्रतिपाद्य स्पष्ट कीजिए।
- 3) "बात सीधी थी पर" कविता में निहित संदेश स्पष्ट कीजिए।
- 4) "कविता के बहाने" कविता का केंद्रीय भाव स्पष्ट कीजिए।
- 5) जब शारीरिक चुनौती का सामना कर रहे व्यक्ति से उसके दुख के विषय में पूछा जाता है तो वह अपना दुख क्यों नहीं बता पाता ? (कैमरे में बंद अपाहिज)
- 6) "काले मेघा पानी दे" संस्मरण का मूल भाव स्पष्ट कीजिए।
- 7) "काले मेघा पानी दे" पाठ में चित्रित लोक आस्था पर अपने विचार प्रकट कीजिए।
- 8) भूमंडलीकरण के इस दौर में भगत जी जैसे लोग समाज के लिए प्रेरणा स्रोत कैसे हैं? (बाजार दर्शन)

ग) निम्नलिखित प्रश्नों का उत्तर एक या दो पंक्ति में दीजिए:-

- 1) "पर्चसिंग पावर" के गर्व में मनुष्य बाजार को क्या प्रदान करता है?
- 2) 'बाजार दर्शन' पाठ के अनुसार शून्य होने का अधिकार किसका है? और क्यों?
- 3) भक्तिन निरक्षर होते हुए भी साक्षर लोगों की गुरु कैसे बन गई?
- 4) भक्तिन इनके जीवन की कर्मठता में सबसे बड़ा कलंक क्या बन गया?
- 5) जेठमास की गर्मी में गांव और शहरों की दशा का वर्णन करो। (काले मेघा पानी दे)
- 6) मेंढक मंडली पर पानी डालने को लेकर जीजी और लेखक के विचारों में क्या भिन्नता थी?
- 7) भयंकर बीमारी से ग्रस्त गांव का दृश्य हृदय विदारक था कैसे? (पहलवान की ढोलक)
- 8) पर्दे पर किस की कीमत है? और क्यों? (कैमरे में बंद अपाहिज)
- 9) 'कैमरे में बंद अपाहिज' कविता में शारीरिक चुनौती खेलते अन्यथा सक्षम लोगों के प्रति काम के रवैये पर टिप्पणी कीजिए।
- 10) 'बात को कील की तरह ठोकना' क्या है ऐसा क्यों किया जाता है ? (बात सीधी थी)

Assignment – II

क) निम्नलिखित प्रश्नों के उत्तर एक दो पंक्ति में दीजिए:-

- 1) गांव में पानी मांगने वाले बच्चों के कितने नाम थे?
- 2) मेंढक मंडली में कैसे कैसे बच्चे होते थे?
- 3) जेठ तथा आषाढ़ के मासमें वायुमंडल की दशा क्या होती थी?
- 4) "कौन कहता है इन्हें इंद्र की सेना?" यह कहकर लेखक किन पर व्यंग्य करता है?
- 5) जीजी ने लेखक को त्याग का क्या अर्थ समझाया?
- 6) "देख तू तो अभी से पढ़ लिख गया है मैंने तो गांव के मदरसे का मुंह भी नहीं देखा।" यह बात कौन कहता है और किससे?

ख) निम्नलिखित प्रश्नों के उत्तर 30 से 35 शब्दों में दीजिए:-

- 1) जीजी लेखक को बुआई संबंधी क्या तर्क देती है?
- 2) पाठ में बताए गए अंधविश्वासों से क्या क्या हानियां हो सकती हैं?

3)सरकार द्वारा करोड़ों अरबों की योजनाएं बनाई जाती हैं लेकिन उनका लाभांश जनसामान्य तक क्यों नहीं पहुंच पाता?(काले मेघा पानी दे)

4)यदि आप लेखक की जगह होते तो इंद्रसेना पर पानी फेंकते या नहीं ?तर्क सहित अपना उत्तर दीजिए।

5)'काले मेघा पानी दे' में लेखक के वैज्ञानिक तर्क और उसकी जीजी के पारंपरिक तर्क की समीक्षा कीजिए।

ग) निम्नलिखित प्रश्नों के उत्तर 40 से 50 शब्दों में दीजिए:-

1)काले मेघा पानी दे पाठ का प्रतिपाद्य बताते हुए समझाइए कि आप किसके विचारों से सहमत हैं? लेखक या जीजी।

2) 'काले मेघा पानी दे 'पाठ में लेखक ने समाज की एक ऐसी समस्या का वर्णन किया है जो आज भारत देश की भयंकर समस्या है। वह कौन सी समस्या है ?उसके विषय में आप कितने चिंतित हैं? बताइए।

3) लेखक ने जिस त्याग भावना को चित्रित किया है उसे स्पष्ट कीजिए। (काले मेघा पानी दे)

4) इस पाठ में चित्रित लोक आस्था पर टिप्पणी कीजिए।

5)इंद्रसेना पर पानी फेंके जाने पर लेखक की मान्यता को जीजी कैसे छिन्न-भिन्न कर देती है? स्पष्ट कीजिए।

HISTORY

Assignment – I

1. List the material used to make beads in the Harappan Civilization. Describe the process by which one kind of bead was made.
2. Describe how artifacts help in identifying social differences during the Harappan period.
3. Discuss how archaeologists reconstruct the past.
4. Discuss the functions that may have been performed by rulers in Harappan society.
5. How were the Harappan cities planned?
6. Describe the administrative system of Vijayanagara Kingdom.
7. “Abdul Razzak an ambassador of Persia was impressed by the fortification of Vijayanagar Empire” Justify the statement.
8. Explain the reasons for the decline of Vijayanagara Empire.
9. How were the water requirements of Vijayanagara met?
10. What do you think was the significance of the rituals associated with the Mahanavamidibba?
11. Why was the south-Western part of Vijayanagara settlement designated as royal centre? Explain.
12. Who was Colin Mackenzie?
13. Explain the social and economic conditions of Vijayanagara.
14. Examine the role of Amaranayakas in Vijayanagara Empire?
15. Describe briefly the message and teachings of Baba Guru Nanak Ji.
16. Discuss the ways in which the Alvars, Nayanars and Virashaivas expressed critiques of the caste system.
17. Who were lingayats?
18. What are the main objectives of bhakti movement?
19. Discuss the main features of mosques
20. Write a note on Mirabai?
21. Explain the Popular Practices of Islamic Traditions.
22. Explain the Caste System as explained by Al-Biruni?
23. Write a note on the Kitab-UI-Hind?
24. Name the work written by Bernier. What did he write about sati system?
25. Explain giving Examples how the account of foreign travellers help in reconstructing the history of India from the 10th to 17th century?

Assignment – II

1. Describe the administrative system of Vijayanagara Kingdom.
2. “Abdul Razzak an ambassador of Persia was impressed by the fortification of Vijayanagar Empire” Justify the statement.
3. Explain the reasons for the decline of Vijayanagara Empire.
4. What do you think was the significance of the rituals associated with the Mahanavamidibba?
5. Why was the south-Western part of Vijayanagara settlement designated as royal centre? Explain.
6. Who was Colin Mackenzie?
7. Explain the social and economic conditions of Vijayanagara.
8. Describe briefly the message and teachings of Baba Guru Nanak Ji.

9. Discuss the ways in which the Alvars, Nayanars and Virashaivas expressed critiques of the caste system.
10. What are the main objectives of bhakti movement?
11. Discuss the main features of mosques
12. Write a note on Mirabai?
13. Explain the Popular Practices of Islamic Traditions.
14. Explain the Caste System as explained by Al-Biruni?
15. Write a note on the Kitab-UI-Hind?
16. Name the work written by Bernier. What did he write about sati system?
17. Explain giving Examples how the account of foreign travellers help in reconstructing the history of India from the 10th to 17th century?

POLITICAL SCIENCE

Assignment – I

TOPIC – Challenges of Nation

Building & International Organisations

1) Fill in the blanks:

- a) India gained independence on _____.
- b) _____ was the first prime minister of India.
- c) The famous speech of Jawaharlal Nehru is known as _____.
- d) Freedom came with the _____ of India.
- e) India became a republic on _____.

2) Explain the three challenges faced by independent India.

3) What were the two goals set to be achieved by independent India?

4) Which party gave the 'two nation' theory? What was it?

5) What principle was followed while partitioning India?

OR

What was the basis of India's Partition?

6) What kind of difficulties were involved in the process of partition?

7) What were the consequences of partition?

8) Why did the idea of a secular nation emerge in India?

9) What was Mahatma Gandhi's sacrifice for India?

10) How was the British India divided before independence?

11) How many princely states were there before independence?

12) What was the response of the following three princely states to the question of joining India after independence: a) Travancore b) Hyderabad c) Bhopal

13) Why was the integration of princely states a problem for India?

14) Who was the deputy prime minister and the first home minister of independent India? How did he solve the problem of integration of princely states?

15) What three considerations guided the government's approach to the princely states?

16) Fill in the blanks: a) The document signed by the rulers of princely states while becoming a part of the union of India was called _____. b) Four Indian princely states which posed difficulties were _____, _____, _____ and _____.

c) The issue of _____ was resolved after a plebiscite. d) There were _____ small states in today's Orissa. e) Saurashtra region of Gujrat had _____ big states and _____ small states. f) _____ signed a Standstill Agreement with India in November 1947.

17) How did Hyderabad and Manipur become a part of India?

18) What is reorganization of states?

19) What considerations had to be kept in mind while reorganizing states?

20) On what principle was reorganization of Indian states done?

21) Why were some people against the linguistic division?

22) Explain Vishal Andhra Movement.

23) When was separate Andhra state formed?

- 24) When was States Reorganization Commission appointed? Why was it appointed?
 25) What was the report of States Reorganization Commission?
 26) When was States Reorganization Act passed? What was it? 27) How has the formation of linguistic states helped India?
 27) Write down the full forms of any four of the following UN bodies
 ☆ UNESCO
 ☆ UNRISD
 ☆ UNHCR
 ☆ OPCW
 ☆ WMO
 ☆ UNCTAD

- 28) Fill in the blanks with appropriate words
 • Van Ki Moon is the 8th UN _____, he is the citizen of _____
 • _____% budget of UN is contributed by five permanent members
 • Two militarily alliances of UN are _____ & _____
 • In 2010 there are total _____ members in UNSC
 • UN was founded in _____ & India joins UN in _____

1. Match the principal organs and agencies of UN with their functions Economic and social council	a) Overseas the global financial system
2. international Court of Justice	b) preservation of international peace and security
3. International Atomic Energy and agency	c) looks into the economic and social welfare of the member countries
4 Security Council	d) safety and peaceful use of nuclear technologies
5 united nation High Commission for refugees	e) resolves disputes between and among member countries
6 World Trade Organisation	f) provides shelters an medical helps during emergencies
7 International Monetary funds	g) to beats and discuss is global issues
8 General Assembly	h) Administration and coordination of UN affairs
9 World Health organisations	i) providing good health for all
10 secretariat	j) facilitates free trade among member countries

- 30) write Down the principles of United Nations Security councils
 31)State two objectives of Human Rights Watch, Amnesty International and international Labour organisation
 32) Why are demand for reforms in the Security Council is being made? What reforms are being suggested

Or

- What do you mean by Darfur conflict explain the role of united nation in this conflict
 33) Describe India's role in the re formation of United Nations Security council and three suitable arguments to support India's candidature for the permanent membership of the United Nations Security council

Or

- Write a short note on veto power and also explain how permanent member of UN Security Council played an important role in veto power

- 34) Describe the composition off Security Council what is the major difference in the privileges given to its permanent and non permanent members

Or

Explain Israel Lebanon attack of 2006, mention the property & human loss during attack, also explained the role played by UN Security Council during Israel Lebanon war

35) What is the role of India in maintaining international peace in context of Korean problems, Indo- china problems ,Congo and Gaza crisis and Iran - Iraq war

Or

Read the picture carefully and answer below questions



- To which organisation is the above logo is concerned
- When did this organisation formally established
- What is made in this logo or the emblem
- When did India joined it
- What is seen around the world map given in the emblem what is being signified by them
- Which is considered the most important organ among the principal organs of UN
- How many members are there in UN Security Council permanent or non permanent
- Who was the former UN general secretary for communications and public administrations in UN

Why do we need international organisations like you in security councils

TOPIC – The Cold War Era

- 1) What did the end of Cold War signify?
- 2) Name two super powers during the Cold War era?
- 3) Which movement proved to be a challenge to super powers?
- 4) Give full forms of:
 - NAM
 - NIEO
 - USSR
 - NATO
 - SEATO
 - CENTO
 - LTBT
 - NPT
 - SALT – I

- LDCs
- UNCTAD
- SALT – II
- START – I
- START – II

5) Describe Cuban Missile Crisis.

6) Why were nuclear missiles placed in Cuba by USSR?

7) What was the reaction of U.S to the placing of missiles in Cuba by USSR?

8) What was the result or significance of the Cuban Missile Crisis?

OR

How did the Cuban Missile Crisis end?

9) answers below questions in 50 to 100 words

Which event is considered as the high point of cold war?

1. What is the difference between a Cold War and a Hot War?

2. Describe Cold War situation after the Second World War.

3. Name the Allied and Axis powers during the Second World War.

4. Who won the Second World War?

5. Give the time duration of the First World War and the Second World War.

6. What was the result of the end of the Second World War?

7. How did the Second World War end?

8. How did the “logic of deterrence” work in the case of Cold War?

9. Name the countries of “Western” and “Eastern” Alliances formed during the Cold War.

10) When did the Western and the Eastern Alliances come into existence?

11) What does arena of ‘Cold War’ refer to? Write down main arenas of Cold War?

12) Name the five founders of NAM (leaders and countries).

13) _____ was the place where first NAM summit held on date _____ & _____ members were there in the first summit of NAM?

14) Explain the following statement:

■ “The policy of staying away from alliances should not be considered isolationism or neutrality”

■ “New International Economic Order”

■ “economic reforms were suggested by UNCTAD report of 1972”

■ “India adopted the Non Aligned Policy”

■ “NAM become irrelevant today, said by critics”

15) _____ became an economic pressure group by 1970’s.

16) what role has India played in the Cold War situation?

MATHEMATICS

Assignment - I

1. Show that the relation R in the set N of Natural numbers given by $R = \{(a, b) : |a - b| \text{ is a multiple of } 3\}$ is an equivalence relation. Determine whether each of the following relations are reflexive, symmetric, and Transitive.
2. Check whether the relation R in R defined by $R = \{(a, b) : a \leq b^3\}$ is reflexive, symmetric, transitive.
3. Prove the relation R on the set $N \times N$ defined by $(a, b) R (c, d) \Leftrightarrow a+d = b + c$, for all $(a, b) (c, d) \in N \times N$ is an equivalence relation.
4. Prove that the function $f: \mathbf{R} \rightarrow \mathbf{R}$, given by $f(x) = |x| + 5$, is not bijective.
5. Prove that the function $f: \mathbf{R} \rightarrow \mathbf{R}$, given by $f(x) = 4x^3 - 7$, is bijective

Q6. Find the value of x such that :-

$$\begin{bmatrix} 1 & 0 & 2 \\ 0 & 2 & 1 \\ 2 & 1 & 0 \end{bmatrix} \begin{bmatrix} 1 \\ 1 \\ 1 \end{bmatrix} = \mathbf{0}$$

Q7. If $A = \begin{bmatrix} 3 & -4 \\ 1 & -1 \end{bmatrix}$ prove that $A^n = \begin{bmatrix} 1+2n & -4n \\ n & 1-2n \end{bmatrix}$ where n is any positive integer.

Q8. If $A = \begin{bmatrix} 1 & 2 & 0 \\ 3 & -4 & 5 \\ 0 & -1 & 3 \end{bmatrix}$, find $A^2 - 4A + 3I_3$

Q9. Express the matrix $A = \begin{bmatrix} 4 & 2 & -1 \\ 3 & 5 & 7 \\ 1 & -2 & 1 \end{bmatrix}$ as the sum of a symmetric and a skew symmetric matrix

Q10. Express the following matrices as the sum of symmetric and skew-symmetric matrices:-

(i) $A = \begin{bmatrix} 6 & 1 \\ 3 & 4 \end{bmatrix}$ (ii) $A = \begin{bmatrix} 3 & 2 & 3 \\ 4 & 5 & 3 \\ 2 & 4 & 5 \end{bmatrix}$

(iii) $A = \begin{bmatrix} 2 & 3 & -1 \\ -1 & 4 & 2 \\ 6 & 0 & 8 \end{bmatrix}$ (iv) $A = \begin{bmatrix} 1 & 2 & 3 \\ 6 & 4 & 5 \\ -2 & -5 & 4 \\ -3 & 3 & -1 \end{bmatrix}$

11. If A & B are square matrices of order 3 such that $|A| = -1$ & $|B| = 3$, then find the value of $|3AB|$.

12. Without expanding evaluate the determinant

$$\begin{vmatrix} (a^x + a^{-x})^2 & (a^x - a^{-x})^2 & 1 \\ (a^y + a^{-y})^2 & (a^y - a^{-y})^2 & 1 \\ (a^z + a^{-z})^2 & (a^z - a^{-z})^2 & 1 \end{vmatrix}, \text{ where } a > 0$$

13. Using the properties of determinants, prove the following:

$$\begin{vmatrix} 1 & 1+p & 1+p+q \\ 2 & 3+2p & 1+3p+2q \\ 3 & 6+3p & 1+6p+3q \end{vmatrix} = 1$$

14. Prove: $\begin{vmatrix} 1 & a & a^2 - bc \\ 1 & b & b^2 - ac \\ 1 & c & c^2 - ab \end{vmatrix} = 0$

23. Find A^{-1} where $\begin{bmatrix} 6 & 4 & 2 \\ -12 & 15 & 18 \\ 25 & -20 & 15 \end{bmatrix}$ and solve the following

$$\begin{aligned} 6x - 12y + 25z &= 4 \\ 4x + 15y - 20z &= 3 \\ 2x + 18y + 15z &= 10 \end{aligned}$$

24. Find A^{-1} where $\begin{bmatrix} 3 & 2 & 1 \\ 4 & -1 & 2 \\ 7 & 3 & -3 \end{bmatrix}$ and solve the following

$$\begin{aligned} 3x + 4y + 7z &= 14 \\ 2x - y + 3z &= 4 \\ x + 2y - 3z &= 0 \end{aligned}$$

Assignment - II

1. Examine the continuity of the function $f(x) = \begin{cases} 1+x; & x \leq 2 \\ 5-x; & x > 2 \end{cases}$ at $x=2$.

2. Show that the function $f(x) = \{2x - |x|\}$ is continuous at $x=0$.

3. Discuss the continuity of the function: $f(x) = \begin{cases} \frac{e^x - 1}{\log(1 + 2x)}, & x \neq 0 \\ 7, & x = 0 \end{cases}$

at the point $x=0$.

4. Examine the continuity of the functions at $x=0$

$$(i) f(x) = \begin{cases} \frac{x}{\sin 3x}, & x \neq 0 \\ 3, & x = 0 \end{cases} \quad (ii) f(x) = \begin{cases} \frac{\sin 2x}{\sin 3x}, & x \neq 0 \\ 2, & x = 0 \end{cases}$$

5. Determine the constants if the given functions are continuous at specified points

$$(i) f(x) = \begin{cases} ax + 5; & x \leq 2 \\ x - 1, & x > 2 \end{cases} \text{ at } x=2 \quad (ii) f(x) = \begin{cases} \frac{x^2 - 3x + 2}{x - 1}, & x \neq 1 \\ k, & x = 1 \end{cases} \text{ at } x=1$$

6. Find the value of a, b and c for which the function is continuous at $x=0$.

$$f(x) = \begin{cases} \frac{\sin(a+1)x + \sin x}{x}, & x < 0 \\ c, & x = 0 \\ \frac{(x + bx^2)^{1/2} - x^{1/2}}{bx^{3/2}}, & x > 0 \end{cases}$$

7. Find the point of discontinuity for the function $f(x) = \begin{cases} \frac{x^4 - 16}{x - 2} & x \neq 2 \end{cases}$

8. Show that $f(x) = \begin{cases} 5x - 4 & a < x < 1 \\ 4x^3 - 3x & 1 < x < 2 \end{cases}$ is continuous at $x = 1$

9. For what value of K in the for continuous $x = 0$, $f(x) = \frac{1 - \cos 4x}{8x^2} \quad x \neq 0$

10. If $f(x) = \begin{cases} 3ax + b & \text{if } x > 1 \\ 11 & \text{if } x = 1 \\ 5ax - 2b & \text{if } x < 1 \end{cases}$ is continuous at $x = 1$. find a, b

MUSIC VOCAL

1. अलंकार किसे कहते हैं?
2. कण किसे कहते हैं?
3. खटका किसे कहते हैं?
4. मुर्की किसे कहते हैं?
5. मीड किसे कहते हैं?
6. ताल की दुगुन की एक मात्रा में कितने बोल होते हैं?
7. झपताल का परिचय 1 गुण 2 गुण 3 गुण व 4 गुण सहित लिखिए?
8. रूपक ताल का परिचय 1 गुण 2 गुण 3 गुण व 4 गुण सहित लिखिए?
9. रागों के समय सिद्धांत का विवरण विस्तार से दीजिए?
10. झप ताल में ताली वह खाली किस मात्रा पर है?
11. रूपक ताल में ताली वह खाली किस मात्रा पर है?

INFORMATION TECHNOLOGY

- Q1. A complex sentence is a sentence that combines one clause with at least one dependent clause.
- Q2. A is a series of sentences that are organised and are all related to a single topic.
- Q3. Define DBMS.
- Q4. (Data/Information) is the collection of raw facts which have not been processed to reveal useful information.
- Q5. What is cardinality of a relation.
- Q6. Define primary key .
- Q7. SQL stands for.....
- Q8. What are Data types in SQL?
- Q9. My grandmother likes to (hear/listen) to the radio.
- Q10. function counts the numbers of tuples in the result of the query. (COUNT/MIN)
- Q11. What are the characteristics of Database Management System?
- Q12. Explain any two types of verbal phrases with example.
- Q13. Briefly explain Drop table command with example
- Q14. Name the various parts of speech.
- Q15. Differentiate between Update and Delete command.

Q16. Explain different kinds of sentences with examples.

Q17. What are the advantages of using DBMS Approach?

Q18. Consider the following "Employee" table:-

Employee_ID	Employee_Name	Job_Title	Salary	Bonus	Age	Manager_ID
1201	Divya	President	50000	NULL	29	NULL
1205	Amyra	Manager	30000	2500	26	1201
1211	Rahul	Analyst	20000	1500	23	1205
1213	Manish	Salesman	15000	NULL	22	1205
1216	Megha	Analyst	22000	1300	25	1201
1217	Mohit	Salesman	16000	NULL	22	1205

The primary_key of this table is Employee_ID and Manager_ID is a foreign key that references Employee_ID.

Write the SQL commands for the following:-

- Create the above table.
- Delete the Employee having Employee_ID 1217.
- Update the salary of Amyra to "40000"
- Write a query to display the names and Job_title of employees having Manager_ID=1201

PHYSICAL EDUCATION

- Write the importance of measurement in sports.
- Explain briefly Rockport one mile test.
- What is the Rikli and Jones Senior Citizen fitness test?
- Write the formula for calculations of physical Efficiency Index in Harvard step test.
- What are the methods of measuring heart rate?
- Explain briefly the motor fitness test.
- Define the General motor fitness.
- Explain the Barrow three item general motor ability test.
- What do you understand by Measurement in sports?
- Who developed Harvard step test.
- What is the normal heart rate.
- Which test should suggest for your grandmother to test lower body flexibility.
- Explain the term flexibility.
- What test would you suggest to measure upper body strength for aged population?
- Which test Weill you suggest to measure general motor ability?
- Briefly explain 8 foot up and go test for agility of senior Citizen.
- Explain the eight foot up and go test for measuring agility dynamic balance.
- Explain the purpose and procedure of any two components of motor fitness.
- Your grandmother feels that she has reduced upper body flexibility and therefore. She wants to test herself. Which test would you suggest to her?
- What are the AAPHER tests?
- Meaning of AAPHER test.
- What are the modified push-up tests?
- Define the power with strength.
- How can we calculate score in partial curl up test?
- What are the heart rates?

ACTIVITIES

Guidelines to perform activities-

- Subject teachers will be providing videos regarding how to perform the activities in whatsapp group.
- Parents are requested to make videos of their wards performing various activities given in homework and sharing the same with subject teachers with name and class.

ENGLISH

Speaking activity for ASL

- 1) Population explosion(Roll number -1to5)
- 2) Importance of learning through experience(Roll number -6 to 10)
- 3) internet privacy(Roll number 11 to 15)
- 4) Ancient education or modern education(Roll number 16 to 20)
- 5) Skills and hobbies I learnt in lockdown (Roll number 21 to 25)
- 6) Impact of smartphones(Roll number 26 onwards)