

[Mona Modern Eng. Med. School](#)  
[Sarangarh](#)  
[\(Summer Homework 2026-27\)](#)

श्रीमान् अभिभावक महोदय,

दिनांक 20 अप्रैल से स्टूडेंट्स की ग्रीष्मकालीन छुट्टियां प्रारंभ हो रही हैं। उक्त छुट्टियां 15 जून तक चलेंगी। छुट्टी का अर्थ कुछ ना करना नहीं होता अपितु अपनी क्षमता, कौशल, आत्मविश्वास व ज्ञान को और अधिक बढ़ाना होता है। छुट्टी के समय का सदुपयोग कर छात्र-छात्रा अपनी शैक्षणिक व सह-शैक्षणिक उपलब्धि को और अधिक संपन्न कर सकते हैं। अभिभावक के रूप में हमारा यह कर्तव्य बनता है कि छुट्टी के समय में हम बच्चों को मोबाइल से दूर रखें और रचनात्मक कार्यों में उन्हें सहभागी बनाकर उन्हें आत्मविश्वासी बनाएं। यहां कुछ प्रोजेक्ट वर्क दिए जा रहे हैं जिन्हें स्टूडेंट्स को अपनी पुरानी कॉपी से पेज निकालकर प्रोजेक्ट फाइल बनाना है एवं ग्रीष्मकालीन होमवर्क जो कि प्रत्येक विषय में दिए गए हैं, उन्हें करना है। साथ ही कुछ लाईफ स्किल के प्रोजेक्ट दिए जा रहे हैं उन्हें भी उसी प्रोजेक्ट फाइल में करना है।

अभिभावकों से आग्रह है कि बच्चों को प्रोजेक्ट कार्य करने दें। अभिभावक का दायित्व उन्हें सहयोग करना है ना कि पूरा प्रोजेक्ट स्वयं बनाना सर्वप्रथम लाईफ स्किल के प्रोजेक्ट कार्य को करना एवं लिखना है उसके पश्चात विषयवार प्रोजेक्ट करना है। आशा है कि सभी स्टूडेंट्स गंभीरता से प्रोजेक्ट कार्य को पूर्ण करेंगे।

धन्यवाद !

**प्राचार्य**  
(आर. केशरवानी)

**Life Skill Project :-**

1. एक News कॉपी बनाना है एवं Daily देश-विदेश की घटना को बिंदुवार लिखते जाना है। रोजाना कम से कम 10 बिंदु लिखने की आदत डालें। (Class 3 to 12)

2. एक पेज में Table बनाएं (Class 3 to 12)

( Columns Title को देखने हेतु Right to Left Scroll करें)

S.N.	Date	Temperature	Time

प्रतिदिन दोपहर 12:00 बजे और रात 8:00 बजे के तापमान को लिखना है।

3. घर की छत/खिड़की आदि में पक्षियों के लिए दाना-पानी की व्यवस्था करना है एवं रिकॉर्ड करना है कि कितने (लगभग ) पक्षी इसका लाभ उठा रहे हैं।

4. अपने दैनिक खान-पान का चार्ट बनाना –

( Columns Title को देखने हेतु Right to Left Scroll करें)

S.N.	Breakfast	Lunch	Dinnar

5. घर में किचन गार्डन बनाना है। घर में अपने बड़ों की मदद से जमीन या अनेक गमलों में सब्जी हेतु प्रयुक्त होने वाले कुछ पौधे जैसे कि बैंगन, धनिया, पुदीना, आलू, प्याज आदि को विकसित करना है एवं रोजाना पौधों में होने वाले परिवर्तन को अपने शब्दों में लिखना है। (Class 1 to 12)

6. घर में एक बड़े चार्ट पेपर या पेज में अपने परिवार का Family Tree तैयार करना Family Tree में जितना संभव हो सके अपने पूर्वजों के समय काल को जानना है Family Tree बनाने के पश्चात् अपने पूर्वज के समय काल को भारत के इतिहास के साथ जोड़कर उस समय घटित ऐतिहासिक घटना के सन्दर्भ में संक्षिप्त जानकारी लिखना है। जैसे- किन्ही के किसी पूर्वज का जन्म 1857 और मृत्यु 1922 है, तो लिखना है-

1857 – भारत का प्रथम स्वतंत्रता संग्राम

1922 – 04 Feb 1922 चौरी-चौरा कांड

(इस तरह इतिहास की घटना काल को लिखते जाना है।)

7. Daily 1 पेज इंग्लिश और 1 पेज हिंदी लिखना है। (Class 1 to 12)

8. Daily अपने Class के Level का 10 Maths बनाना है। (Nursery to 12 )

9. घर के समस्त छोटे-छोटे कार्य जैसे कि पौधों को पानी देना, चाय बनाना, सब्जी लाना इत्यादि कार्य करना (Nursery to 12 क्षमता अनुसार)

10. घर या आस-पास में जितने प्रकार के Plants उपलब्ध है उनकी पत्तियों को एक पेज में चिपकाना एवं उस Plant के बारे में जानकारी लिखना। (Class 1 to 12 Level अनुसार)

11. अपनी रुचि अनुसार कुछ कार्य करना जैसे कि ड्राइंग, स्केच, क्रॉफ्ट, सिलाई, ग्रीटिंग कार्ड डिज़ाइन इत्यादि।

12. Daily इंग्लिश के 10 नये शब्द का अर्थ लिखना, याद करना एवं उसे Use करना।

13. प्रत्येक विषय के 2-2 Topic को लेकर Presentation बनाना है जो कि कम से कम 5 मिनट का होना चाहिए। Presentation Ready होने के पश्चात् उसका Video बनाना है। (Class 3 to 12 )

14. Class के अनुसार Table याद करना जैसे –

i. Class Nursery – UKG – 2, 3 तक का

ii. Class 1 to 5 – 10 तक का

iii . Class 6 to 12 – 20 तक का

आशा है सभी स्टूडेंट्स समर होमवर्क को गंभीरता से पूर्ण करेंगे।

प्राचार्य

(आर. केशरवानी)

**Class 12**  
**(Sci + Com)**

[English Core](#)    



## Class XII English

1. Write a Report of your visit to an attracting place in about 100-120 words. Paste pictures for attraction.

### 2. Art Integrated Project: Elevator Pitch

Like advertisement, this project also focuses on commercial communication. This project only to high school students because of the amount of research that goes into it. Review successful elevator pitches of successful startups. Detail the necessary information and persuasive tactics.

Create your own business model or select one from vast startups presented in the businesses world.

**OR**

### Class Magazine:

Taking some 'time out' from regular classes and doing something completely different can really help group dynamics and you may also give quieter or less able students a chance to shine. Making a class magazine is a project that will appeal to most groups as it allows individuals to work on what interests them.

Select a theme of environmental, health, literary, or societal topic. Gather all skills; idea-generation, writing, design, and presentation. Make a Class Magazine of minimum Six pages.

### 3. Read the following passage and answer the questions that follow:

There is no denying that the major function of the army is to maintain law and order in times of deep crisis. However, we must not forget that the need to maintain law and order also arises in normal times. It is in these times that we need another force that compels citizens to obey the law and to act with due regard to the rights of others. The force also protects the lives and the properties of law abiding citizens.

Laws are essentially made to secure the personal safety of the citizens of a country. They aim to prevent different types of crimes that pose threat to the security of people and safety of their property, such as larceny, murder and numerous other illegal practices involving violence of any type. Besides ensuring security of the property of the citizens against theft and damage, laws also try to protect the rights of communities and castes to carry out their customs and ceremonies, so long as they do not conflict with the rights of others.

It is important to note that the enforcement of laws multiplies the duties and responsibilities of citizens towards themselves. Those among them, who can be identified as good citizens, obey these laws and take care that everything they do is done with due regard to the rights and well-being of others. Sadly, however, there are people who do not show a natural keenness to understand the true significance of laws.

These people, who can be called bad citizens, often seem to be reluctant in terms of their willingness to follow laws. Such citizens are only restrained from breaking these laws by fear of the consequence of their actions. That is why it becomes necessary for the law-enforcing agencies to take steps to compel a bad citizen, so that they may start acting as a good citizen.

It is significant to note in this regard that the supreme control of law and order in a State is usually in the hands of the home minister who is responsible to the State Assembly. He/she is assisted by a number of bureaucrats, including the Home Secretary, besides additional

and joint secretaries. The Inspector General of Police, who heads the police force in a state, carries out the orders issued by the Home Ministry. He / she too has a hierarchy of police officers under him. Thus, to maintain law and order in any state, there is a vast chain of officials.

**Based on the reading of the passage, answer the following:**

- i. Give the meaning of each of the following words as used in the passage.  
One word answer or short phrases will be accepted. (a) Violence (b) Restrained
- ii. What does the force or law help in?
- iii. State the role played by the police in the day- to -day life of man.
- iv. Who has the supreme control of law and order situation of the state? How?
- v. Briefly describe the importance of laws.

#### 4. Letter Writing:

A Letter to the Editor may be written to the editor of a newspaper or a magazine. It is written to highlight a social issue or problem. It can also be written in order to get it published in the said medium. As it is a formal letter, the format has to be followed strictly. Only formal language can be used i.e. abbreviations and slang language should be avoided.

(i) Recently you went to your native village to visit your grandparents. You saw that some of the children in the age group 5-14 (the age at which they should have been at school) remained at home, were working in the fields or were simply loitering in the streets. Write a letter in 120-150 words to

the editor of a national daily analysing the problem and offering solutions to it.

(ii) You are Vijay/ Vijaya, a resident of 127A Vinoba Nagar Jaipur -18. You feel perturbed by the complete negligence of the road safety rules by the masses. Write a letter to the Editor of a national daily expressing your concern, along with solutions. ( excessive honking - jumping lanes - red light - wrong side driving - rash driving)

#### 5. Article Writing

(i) Mission self- reliant India- it's time to be 'vocal about Local'. The Covid-19 crisis has taught India the importance of Local manufacturing and supply chain. Write an article in about 100-120 words for a magazine. Give a suitable title. You may take the help of the following image.



(ii) You are Suraj/ Savita, a student of class 12. For your school magazine, write an article in 150-200 words on ' The Joy of Reading has Lost its Way in the Labyrinth of Social Media'.

6. **Literary Device:** A literary device is any specific aspect of literature, or a particular work, which we can recognize, identify, interpret and/or analyze. Both literary elements and literary techniques can rightly be called literary devices.

**TASK :** Make a list of all the literary devices commonly used in poem. Identify the different literary devices used in poem 1 to 4. Give a short description of each poetic device.

7. **Notice Writing:** A notice is a written or printed announcement (Example – a notice for sale). It is written in order to inform a large number of people about something that has happened or is about to happen.

i. You are Ruhi/Rajesh, head girl/boy of Anex Binco Convent school. Your school is going to organize an inter-school singing competition. Write a notice for your school notice board inviting names of all the interested students.

8. Read the first chapter of your Flamingo book. Try to make any FIVE (possible) short

answer type questions. Answer them in your English Notebook.

9. Read the given extract and answer the questions it follows.

“M. Hamel went on to talk of the French language, saying that it was the most beautiful language in the world — the clearest, the most logical; that we must guard it among us and never forget it, because when a people are enslaved, as long as they hold fast to their language it is as if they had the key to their prison. Then he opened a grammar book and read us our lesson. I was amazed to see how well I understood it. All he said seemed so easy, so Easy!”

i. Which of the following can be attributed to M. Hamel’s declaration about the French language?

- A. subject expertise
- B. nostalgic pride
- C. factual accuracy
- D. patriotic magnification

ii. Why was Franz able to understand the grammar lesson easily?

iii. “I was amazed to see how well I understood it.” Select the option that does NOT explain why Franz found the grammar lesson “easy”.

- A. Franz was paying careful attention in class this time.
- B. M. Hamel was being extremely patient and calm in his teaching.
- C. Franz was inspired and had found a new meaning and purpose to learning.
- D. Franz had realized that French was the clearest and most logical language.

iv. Choose the word which means the same thing as terrible, eerie, dire.

- A. Trumpets
- B. Dreadful
- C. Nuisance
- D. Thunderclap

10. Solve the following questions.

i. Franz didn’t learn French, whom did M. Hamel blame? Give reasons to support your answer.

ii. What was the news which was put up on the bulletin board?

iii. How was the scene in the school in the morning of the last lesson different from that on other days? (Delhi 2008)

iv. Why are the young trees described as ‘sprinting’?

OR

Why has the narrator brought in the image of the merry children ‘spilling out of their homes’?

v. What does the narrator mean by ‘all I did was smile and smile and smile…’?

OR

A smile does not always indicate happiness.’ Does My Mother at Sixty-Six reflect this statement? Justify your response with an example from the poem. (CBSE Sample Paper 2022)

Hindi

Summer Holidays Home Work

Class -12th EM

Subject -Hindi

प्रश्न 1. स्वरचित काव्य रचना करें।

प्रश्न 2. प्रतिदिन डायरी लेखन करें।

प्रश्न 3. स्टूडेंट प्रतिदिन एक पेज सुलेख लिखें।

प्रश्न 4. रचनात्मक लेखन करें। विषय- 'काश में उड़ पाता।'

प्रश्न 5\_सूखे से जूझते गाँव और पानी के लिए तड़पते लोगों को देखकर आप अपने घर-विद्यालय में जल बचाने के लिए कौन-से तीन ठोस कदम उठाएँगे?

प्रश्न 6\_पाठ में गाँववालों की बेचैनी और बच्चों की आशा दिखाई गई है। अपने आस-पास किसी को संकट में देखकर आप उसकी सहायता कैसे करेंगे?

प्रश्न 7 \_लम्बी प्रतीक्षा के बाद भी गाँववाले उम्मीद नहीं छोड़ते। जीवन में जब परिणाम मिलने में देर हो, तब आप स्वयं को निराश होने से कैसे बचाएँगे?

प्रश्न 8 \_पाठ में इंद्र देवता से प्रार्थना और लोक-विश्वासों का वर्णन है। आज के युग में अंधविश्वास से बचते हुए किसानों की मदद के लिए विज्ञान का उपयोग कैसे करेंगे?

प्रश्न 9 \_लेखक ने सूखे का वर्णन बहुत मार्मिक ढंग से किया है। यदि आपको अपने क्षेत्र की किसी समस्या पर लोगों को जागरूक करना हो, तो हिंदी में एक प्रभावशाली अपील कैसे लिखेंगे?

10. काले मेघा पानी दे के आधार पर जीजी की दृष्टि में त्याग और दान को परिभाषित कीजिए।

प्रश्न 11रात का अँधेरा धीरे-धीरे उजाले में बदलता है। जीवन में जब असफलता या निराशा का 'अँधेरा' हो, तो आप 'उषा' की तरह नई शुरुआत के लिए खुद को कैसे तैयार करेंगे?

प्रश्न 12 उषा कुछ पल की मेहमान है, फिर दिन चढ़ जाता है। बदलाव प्रकृति का नियम है। अपने स्कूल/करियर में आने वाले बदलावों को आप बिना घबराए कैसे अपनाएँगे?

प्रश्न 13 उषा कविता में कवि शमशेर बहादुर सिंह ने सूर्योदय से पहले का कैसा वर्णन किया है?

प्रश्न 14 उषा कविता में कवि शमशेर बहादुर सिंह ने प्रातः कालीन आकाश का जादू को कब और कैसे खत्म होता बताया है ?

प्रश्न 15 "प्रातः नभः था बहुत नीला शंख जैसे..... राख से लीपा हुआ चौका ( अभी गीला पड़ा है)" इन पंक्तियों का क्या आशय है?

Physics   

Class 12th Science  
Subject Physics

Life Skill Questions:

1.Prepare a working model on the following topic:

- (i) Laser security alarm system
- (ii) Wireless power transfer
- (iii) Step down transformer (Hand-wound)

Choose one topic.

- 2. Why is it safer to stay inside a car during a lightning storm?
- 3. Why are home appliances connected in parallel rather than series?
- 4. Why your mobile signal drop inside an elevator or a basement?
- 5. Why do doctors use X-rays for bone fractures but MRI for soft tissue?

Descriptive Questions:

- 1. A man stands on the bank of a pond. He observed a fish at a depth of 2m. If refractive index of water is 1.33, then find the real depth.
- 2. A square object is placed in front of a convex mirror of radius of curvature of 90 cm at a distance of 15 cm. Find the position of image and real magnification.
- 3. Define interference of light? Write two essential conditions for producing sustained interference pattern on the screen.
- 4. What is photoelectric effect? Write Einstein's photoelectric equation. (Draw diagram also)
- 5. State the postulates of Bohr's Model. Draw the energy level diagram for hydrogen atom.
- 6. State and prove Gauss' Theorem.
- 7. Find the expression for electric field due to a charged spherical shell at a point  
Outside the shell.  
On the surface of shell.  
Inside the shell.
- 8. Find the expression for Electrostatic potential due to an electric dipole at a point on the axis of electric dipole.
- 9. How capacitors are combined? Find expressions for equivalent capacitance.
- 10. Explain the .construction, working principle and working process of moving coil galvanometer.

Chemistry 

Descriptive Questions

- 1. Explain the following reactions with suitable examples:
  - 1. Swarts reaction
  - 2. Sandmeyer's reaction
- 2. In the following pair of compounds, which compound undergoes faster SN1 reaction and why?
- 3. Write the uses of DDT, chloroform and Freon-12.
- 4. Identify A and B:  
 $\text{Cyclohexyl bromide} + \text{Mg (dry ether)} \rightarrow \text{A} \rightarrow (\text{H}_2\text{O}) \rightarrow \text{B}$
- 5. What happens when haloalkanes react with water? Explain by giving chemical equations.
- 6. Out of o- and p-dibromobenzene, which one has a higher melting point and why?

7. How will you bring about the following conversions:

1. Benzene  $\rightarrow$  3-bromonitrobenzene

2. Ethanol  $\rightarrow$  but-1-yne

8. Write the structure of the following compounds:

1. 2-chloro-3-methylpentane

2. 2-(2-chlorophenyl)-1-iodooctane

9. What is racemization? Explain retention and inversion products with example.

10. Give reasons:

The bond length of the C–Cl bond is larger in haloalkanes than that in haloarenes.

Life Skill Questions

1. On an A4 size paper, write the different naming reactions given in your organic chemistry and paste it in your chemistry notebook.

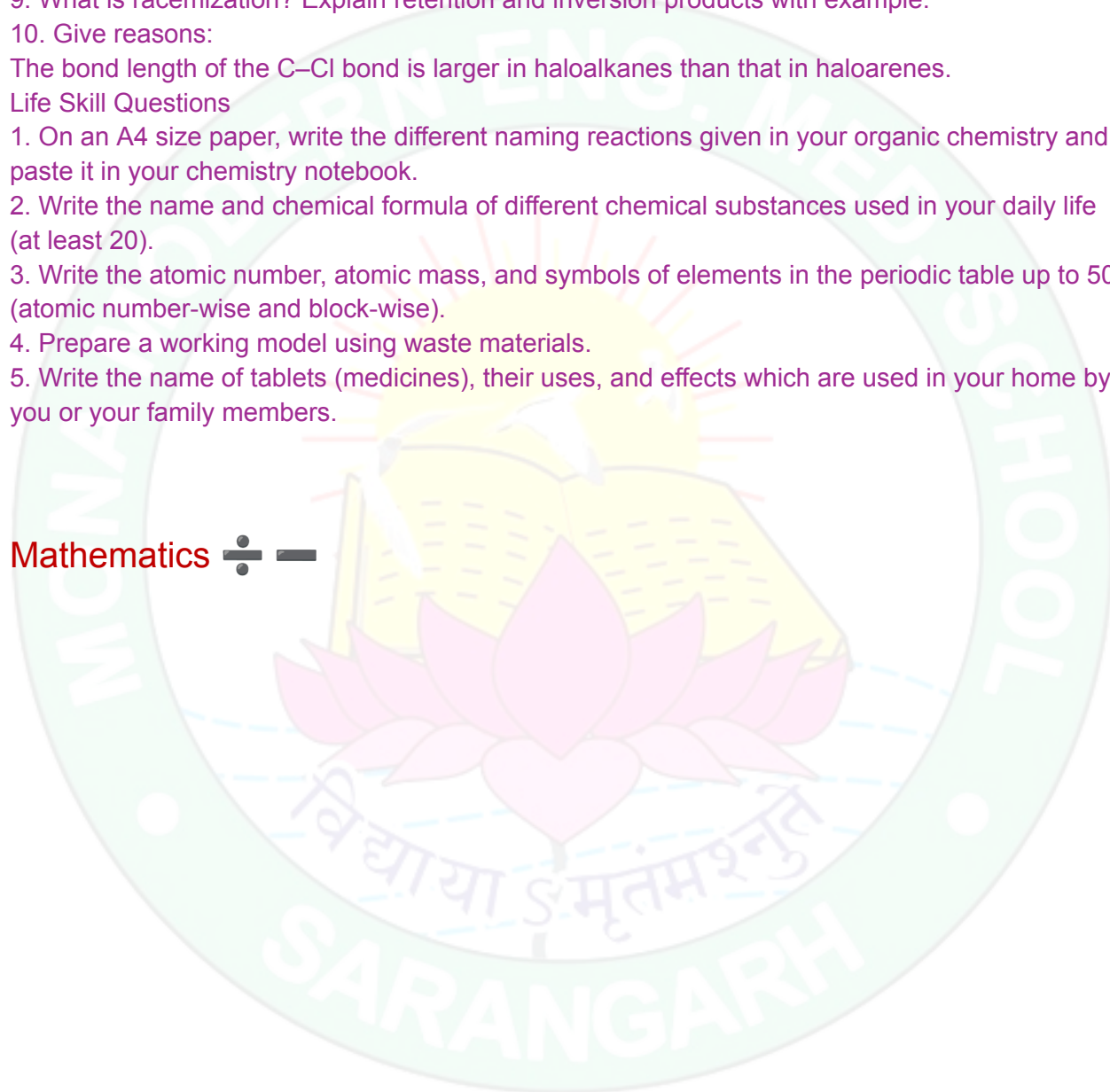
2. Write the name and chemical formula of different chemical substances used in your daily life (at least 20).

3. Write the atomic number, atomic mass, and symbols of elements in the periodic table up to 50 (atomic number-wise and block-wise).

4. Prepare a working model using waste materials.

5. Write the name of tablets (medicines), their uses, and effects which are used in your home by you or your family members.

Mathematics  $\div$  —



1. Radha, Fauzia, Simran are the students of 12<sup>th</sup> class. Radha has 15 notebooks and 6 pens, Fauzia has 10 books, 2 pens, and Simran has 13 books and 5 pens. Express this in matrix form.

2. Construct a  $3 \times 2$  matrix whose elements are given by  $a_{ij} = \frac{1}{2} |i - 3j|$

3. Find X, Y, Z from the equation 
$$\begin{bmatrix} x + y + z \\ x + z \\ y + z \end{bmatrix} = \begin{bmatrix} 9 \\ 5 \\ 7 \end{bmatrix}$$

4. Find a, b, c, d from the equation 
$$\begin{bmatrix} a - b & 2a + c \\ 2a - b & 3c + d \end{bmatrix} = \begin{bmatrix} -1 & 5 \\ 0 & 13 \end{bmatrix}$$

5. If  $A = \begin{bmatrix} 8 & 0 \\ 4 & -2 \\ 3 & 6 \end{bmatrix}$ ,  $B = \begin{bmatrix} 2 & -2 \\ 4 & 2 \\ -5 & 1 \end{bmatrix}$  Find X such that  $2A + 3X = 5B$

6. Find X and Y  $2 \begin{bmatrix} x & 5 \\ 7 & y - 3 \end{bmatrix} + \begin{bmatrix} 3 & -4 \\ 1 & 2 \end{bmatrix} = \begin{bmatrix} 7 & 6 \\ 15 & 14 \end{bmatrix}$

7. Find X and Y if  $x \begin{bmatrix} 2 \\ 3 \end{bmatrix} + y \begin{bmatrix} -1 \\ 1 \end{bmatrix} = \begin{bmatrix} 10 \\ 5 \end{bmatrix}$

8. Given  $3 \begin{bmatrix} x & y \\ z & w \end{bmatrix} = \begin{bmatrix} x & 6 \\ -1 & 2w \end{bmatrix} + \begin{bmatrix} 4 & x + y \\ z + w & 3 \end{bmatrix}$  Find the values of X, Y, Z and W

9. If  $A_x = \begin{bmatrix} \cos x & \sin x \\ -\sin x & \cos x \end{bmatrix}$  and  $A_y = \begin{bmatrix} \cos y & \sin y \\ -\sin y & \cos y \end{bmatrix}$  Show that  $A_x A_y = A_{x+y}$

10. If  $A = \begin{bmatrix} 3 & -2 \\ 4 & -2 \end{bmatrix}$  and  $I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$  Find K if  $A^2 = KA - 2I$

11. If  $F(x) = \begin{bmatrix} \cos x & -\sin x & 0 \\ \sin x & \cos x & 0 \\ 0 & 0 & 1 \end{bmatrix}$ , show that  $F(x)F(y) = F(x+y)$ .

12. If  $2 \begin{bmatrix} 3 & 4 \\ 5 & x \end{bmatrix} + \begin{bmatrix} 1 & y \\ 0 & 1 \end{bmatrix} = \begin{bmatrix} 7 & 0 \\ 10 & 5 \end{bmatrix}$ , find  $(x - y)$ .

13. Find x, if  $\begin{bmatrix} x & -5 & -1 \end{bmatrix} \begin{bmatrix} 1 & 0 & 2 \\ 0 & 2 & 1 \\ 2 & 0 & 3 \end{bmatrix} \begin{bmatrix} x \\ 4 \\ 1 \end{bmatrix} = O$ ?

14. If A and B are symmetric matrices, show that  $AB + BA$  is symmetric and  $AB - BA$  is skew symmetric.

15. Find  $A^2 - 5A + 6I$ , if  $A = \begin{bmatrix} 2 & 0 & 1 \\ 2 & 1 & 3 \\ 1 & -1 & 0 \end{bmatrix}$

16. Find the matrix  $X$  so that  $X \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix} = \begin{bmatrix} -7 & -8 & 3 \\ 2 & 4 & 6 \end{bmatrix}$

17. Express the matrix  $\begin{bmatrix} 6 & -2 & 2 \\ -2 & 3 & -1 \\ 2 & -1 & 3 \end{bmatrix}$  as the sum of a symmetric and a skew symmetric matrix.

18-

The Palace of Peace and Reconciliation, also known as the Pyramid of peace and Accord is a 62-metre high Pyramid in Mursultan, the capital of Kazakhstan, that serves as a non-denominational national spiritual centre and an event venue. It is designed by faster and partners with a stained glass apex. It has 25 smaller equilateral triangles as shown in the figure.



- (i) If the vertices of one triangle are  $(0, 0)$ ,  $(3, \sqrt{3})$  and  $(3, -\sqrt{3})$  then find the area.
- (ii) Find the area of face of the Pyramid.
- (iii) Find the length of a altitude of a smaller equilateral triangle.

**OR**

Using determinants, find the equation of the line joining the points  $A(1, 2)$  and  $B(3, 6)$ .

## 5 Short Life-Skill Questions (Matrices & Determinants)

### 1. Cryptography and Security

Create a  $2 \times 2$  matrix to represent a secret 4-letter word by assigning each letter a number ( $A=1, B=2$ , etc.). Multiply this by a chosen encoding matrix to create a "cipher." Explain how digital security relies on matrix inversion for decryption.

### 2. Nutrition and Diet Planning

Create a matrix where rows represent different meals and columns represent nutrients (Protein, Carbs, Fats). Use matrix multiplication to calculate your total

weekly intake based on a second matrix representing the frequency of those meals.

### 3. Business Inventory Management

A shop sells two types of sports kits in two different branches. Represent the stock in Branch A and Branch B as two separate matrices. Use matrix addition to find the total inventory and scalar multiplication to predict stock levels if requirements double next month.

### 4. Area Estimation in Geography

Identify three local landmarks on a map and note their approximate (x, y) coordinates. Arrange these coordinates into a 3x3 determinant to calculate the area of the triangle formed by these locations.

### 5. Social Media Networking

Represent a small group of 5 friends as a square matrix where a 1 indicates a direct connection and 0 indicates no connection. Use this "Adjacency Matrix" to identify who the most influential person in the group is based on the number of connections.

**Biology** 

Summer Holiday Home Work

Class XII Biology

1. Explain the structure of human male reproductive system.

Q2. Explain the structure of human female reproductive system.

23. Diagrammatically describe the sectional view of ovary.

Q4. Draw a labelled structure of. T.S. of testis, and mention the function of sertoli cells, leydig's cells and seminiferous tubules.

Q.5. Draw a labelled structure of human sperm.

6. Draw a labelled structure of human ovum.

Q7. Explain the function of LH, FSH, and testosterone.

Q8. Describe various mode of pollination in a flowers.

Q9.Explain double fertilisation and tripple fusion.

Q10. Give reason

(1) Apple is called false fruit.

(ii) Banana refers to parthenocarpic fruit

(1) Testes are located outside from abdominal cavity

Life skill Home work.

(4). Enlist the name of various medicines and their application which often used in daily life in your family

(2). Prepare a drawing copy having many diagrams of Class 12th Biology.

(3). Prepare a model from best out of waste ..

### Computer Science

1. Give a general introduction to Python ?

Define literal/value and its types ?

2. What do you understand by the term Boolean Literals ?

3. Define Evaluating Arithmetic Operations ?

4. Make a chart of some Mathematical Functions in math Module ?

4. What is statement flow control ? Write its type ?

5. Write a programme to print cubes of numbers in the range 15 to 18 .

6. Write a programme to print square root of every alternate number in the range 1 to 18 ?

7. What is non literal in python ?

8. How many ways are there in python to represent an integer literal ?

9. Why is Boolean considered a sub type of integers ?

10. Evaluate the following expression :-  $10 > 5$  and  $7 > 12$  or not  $18 > 3$  .

11. Lalita has written a code to input a number and check whether it is prime or not . His code is having errors . Rewrite the correct code and underline the corrections made ?

12. State and define Tuples vs Lists ?

What are the two methods to delete elements from a dictionary ?

13. Write a program that finds an element index / position in a tuple WITHOUT using index ().

14. Write a programme that prints a table on two columns - tables that help convert miles into kilometers.

15. Write a program that generates a series using a function which takes first and last values of the series and then generates four terms that are equidistant e.g., if two numbers passed are 1 and 7 then function returns 1 3 5 7.

15. Write a function that takes two numbers and returns the number that has minimum one's digit.

[For example, if numbers passed are 491 and 278, then the function will return 491 because it has got the minimum one's digit out of two given numbers (491's 1 is  $<$  278's 8)].

Fundamental Questions

16. Pick one of the following statements to correctly complete the function body in the given code snippet.

```
def f(number):  
    #Missing function body  
print(f(5))  
return "number"  
print(number)  
print("number")  
return number
```

17. Which of the following function headers is correct ?

```
def f(a = 1, b):  
def f(a = 1, b, c = 2):  
def f(a = 1, b = 1, c = 2):  
def f(a = 1, b = 1, c = 2, d):
```

18. def calculate\_area(length, width):

```
    area = length * width  
    return area
```

length = 5

width = 3

result = calculate\_area(length, width)

print("Area of the rectangle:",

Find output

19. What are the errors in the following codes ? Correct the code and predict output

```
total = 0;
```

```
    def sum(arg1, arg2):
```

```
        total = arg1 + arg2;
```

```
    print("Total :", total)
```

```
return total;
```

```
sum(10, 20);
```

```
print("Total :", total)
```

20. What are the errors in following codes ? Correct the code and predict output :

```
total = 0;
```

```
    def sum(arg1, arg2):
```

```
        total = arg1 + arg2;
```

```
    print("Total :", total)
```

```
return total;
```

```
sum(10, 20);
```

```
print("Total :", total)
```

**MONA MODERN ENGLISH MEDIUM SCHOOL SARANGARH**  
**CLASS - 12th COMMERCE (EM)**  
**SUBJECT - ACCOUNTANCY**

## SUMMER HOLIDAY HOMEWORK

Q.01. A and B were partners in a firm sharing profits in the ratio of 5: 3. Their fixed capitals on 31st March, 2017 were: A ₹ 60,000 and B ₹ 80,000. They agreed to allow interest on capital @ 12% p.a. The profit of the firm for the year ended 31st March, 2018 before allowing interest on capitals was ₹ 12,600.

Pass necessary Journal entries for the above transactions in the books of A and B. Also show your working notes clearly. **(CBSE 2019)**

Q.02. A, B and C were partners in a firm sharing profits and losses equally. Their respective capitals were ₹ 10,00,000, ₹ 9,00,000 and ₹ 8,00,000. The Partnership Deed provided for the following:

- (1) Interest on capital @ 9% per annum.
- (2) Interest on drawings @ 12% per annum.
- (3) Interest on partner's loan to the firm 10% per annum.

During the year, B had withdrawn ₹ 20,000 for his personal use. On 30th September, 2021, A had given a loan of ₹ 70,000 to the firm.

Pass the necessary Journal entries in the books of the firm for the following for the ended 31st March, 2022:

- (i) Allowing interest on C's Capital.
- (ii) Providing interest on A's Loan.
- (iii) Charging interest on B's Drawings.

Also give transfer entries in the Profit and Loss Account/Profit and Loss Appropriation Account, as the case may be. **(CBSE 2023)**

Q.03. Arun and Barun were partners sharing profits in the ratio of 3: 2. Their capitals were ₹ 30,000 respectively. Partnership deed provided for interest on capital @ 6% p.a. to Arun and Barun and quarterly salary of ₹

1,000 to Barun. Arun had given a loan of ₹ 1,00,000 on 1st October, 2021 to the firm without any agreement about interest.

For the year 2021-22, the profits earned were ₹ 26,800.

Prepare Profit and Loss Appropriation Account of the firm for the year ended 31st March, 2022. **(CBSE 2023)**

Q.04. Sonu and Rajat started a partnership firm on 1st April, 2017. They contributed ₹ 8,00,000 and ₹ 6,00,000 respectively as their capitals and decided to share profits and losses in the ratio of 3: 2. The Partnership Deed provided that Sonu was to be paid a salary of 20,000 per month and Rajat a commission of 5% on turnover. It also provided that interest on capital be allowed @8% p.a. Sonu withdrew ₹ 20,000 on 1st December, 2017 and Rajat withdrew ₹ 5,000 at the end of each month. Interest on drawings was charged @ 6% p.a. The net profit as per Profit & Loss Account for the year ended 31st March, 2018 was ₹ 4,89,950. The turnover of the firm for the year ended 31st March, 2018 amounted to ₹ 20,00,000. Pass necessary Journal entries for the above transactions in the books of Sonu and Rajat. **(CBSE 2019)**

Q.05. A, B and C were partners in a firm sharing profits and losses in the ratio of 3:3:4. On 1st April, 2017 the balances in their Capital and Current Accounts were as follows:

Partners	Capital Accounts (₹)	Current Accounts (₹)
A	4,00,000 Cr.	20,000 Dr.
B	5,00,000 Cr.	10,000 Dr.
C	5,00,000 Cr.	15,000 Dr.

Their Partnership Deed provided for the following:

- (i) Interest on Capital @ 9% p.a.
- (ii) Salary to A @ ₹ 50,000 per quarter.

On 1st January, 2016, C had given a loan of ₹ 2,00,000 to the firm at 6% per annum interest.

During the year their drawings were A ₹ 40,000, B ₹ 75,000 and C ₹ 55,000.

On 1st January, 2018, A introduced further capital ₹ 2,00,000. The net profit of the firm before allowing interest on C's loan was ₹ 4,00,000.

Prepare Profit & Loss Appropriation Account of the firm for the year ending 31st March, 2018.

**(CBSE 2019)**

Q.06. Asha, Nisha and Hiten were partners in a firm sharing profits and losses in the ratio of 2:2:1. Their fixed capitals were ₹ 2,00,000, ₹ 1,50,000 and ₹ 1,00,000 respectively. The partnership deed provided for interest on capital 10% p.a. For the year ended 31st March, 2023, profits of the firm were distributed without providing interest on capital.

Pass the necessary adjusting Journal entry to rectify the error. **(CBSE 2024)**

Q.07. Mohan, Sohan and Suresh were partners in a firm sharing profits in the ratio of 2:2:1. Suresh was guaranteed a profit of ₹ 70,000. Any deficiency on account of guarantee to Suresh was to be borne by Mohan and Sohan a 3: 2 ratios. The profit of the firm for the year ended 31st March, 2022 amounted to ₹ 2,00,000.

Prepare Profit and Loss Appropriation Account of the firm for the year ended 31st March, 2022. **(CBSE 2023)**

Q.08. The goodwill of a firm was to be valued at two years' purchase of the average profit of the last three years. The profits were as under:

2014-15: ₹ 20,000 (including an abnormal gain of ₹ 5,000)

2015-16: ₹40,000 (after charging an abnormal loss of ₹10,000)

2016-17: ₹40,000. **(CBSE 2019)**

Q.09 Sunny and Rohan were partners in a firm sharing profits and losses in the ratio of 2:1. Their books showed that the capital employed on 31st March, 2023 was ₹ 7,00,000. The average profits earned by the firm were ₹ 90,000, Calculate the value of goodwill on the basis of 5 years purchase of super profits assuming that the normal rate of return is 10%. **(CBSE 2024)**

Q.10 On 1st April, 2022, the capital of the firm of Ashu and Madhav is ₹ 1,50,000. The normal rate of return on capital employed is 10%. Average profits of the firm are ₹ 23,500. Calculate goodwill of the firm based on three years' purchase of super profits. **(CBSE 2023)**

### **Real-Life Skill Based Questions**

#### **1. Starting a Business Together**

Q. Rahul and Aman start a mobile shop without a written agreement. They invest equal capital but Rahul works full-time while Aman is part-time. At year-end, Aman demands equal profit.

Who is correct? Explain using partnership rules.

#### **2. No Partnership Deed Situation**

Q. Two friends open a café but forget to create a partnership deed. They disagree on salary and interest on capital.

How will profits, salary, and interest be treated as per law?

#### **3. Interest on Capital Dispute**

Q. Priya invests more capital than Neha in a boutique business and demands extra profit due to higher investment. There is no mention of interest in the deed.

Should Priya get extra benefit? Justify.

#### **4. Partner's Salary Issue**

Q. A partner managing a gym claims salary at year-end, but the partnership deed is silent about salary.

Is he entitled to salary? Why or why not?

#### **5. Interest on Drawings (Daily Life Example)**

Q. One partner regularly withdraws cash from the business for personal expenses. At year-end, the firm charges interest on drawings.

Why is this done? Explain its importance.

**MONA MODERN ENGLISH MEDIUM SCHOOL SARANGARH**

**CLASS - 12th COMMERCE (EM)**

**SUBJECT - BST**

#### **SUMMER HOLIDAY HOMEWORK**

A. Long Answer Type Questions.

Q.1. State any four characteristics of management.

**(CBSE 2025).**

Q.2. Explain the following features of management:

(i) Management is a goal-oriented process.

(ii) Management is a continuous process. **(CBSE 2025).**

Q.3. Explain the following features of co-ordination:

(i) Co-ordination integrates group efforts. **(CBSE 2025).**

(ii) Co-ordination is the responsibility of all managers.

Q.4. State any four functions performed by top level management. **(CBSE 2024)**.

Q.5. Explain the following features of 'Management': **(CBSE 2025)**

- (i) Management is a dynamic function.
- (ii) Management is an intangible force.

Q.6. Explain the following features of Coordination: **(CBSE 2025)**.

- (a) Coordination is a continuous process
- (b) Coordination is an all-pervasive function.

B. Case Study Based Questions.

Q.7. P. Madhav is the production manager of 'Trendy Style Pvt. Ltd.', a firm manufacturing office furniture. His objective is to increase production by 20% in the next one year. But the Sales Manager, R. Shetty does not approve of the increase in production, till changes are brought about in the quality of wood, locks, handles etc. to incorporate latest trends. This kind of conflict brings to light an important concept of management that can help to link the activities of various departments. **(CBSE 2023)**.

- (a) Identify and explain the concept discussed above.
- (b) State any two points of importance of the concept identified in (a) above.

Q.8. After completing his MBA degree, Aman joined a multinational company 'Zeyovya Ltd.'. His job demands long hours and commitment to the organisation. He is responsible for integrating diverse elements and coordinating all the activities of the business and for its impact on society. His job is complex and stressful. **(CBSE 2023)**.

- (a) Identify the level of management at which Aman joined the organisation.

(b) State any two functions to be performed by Aman at this level other than those discussed in the para.

Q.9. Explain the following principle of management given by Fayol: **(CBSE 2023)**

- (i) Division of work
- (ii) Authority and Responsibility

Q.10. Explain the following principles of General Management: **(CBSE 2025)**

- (i) Centralisation and Decentralisation
- (ii) Division of work

### **Real-Life Skill Based Questions**

#### **1. Small Business Growth**

Q. A local clothing shop expands into multiple branches. The owner struggles to coordinate staff, stock, and customer service.

Explain how management helps in achieving business goals in this situation.

#### **2. Restaurant Management Case**

Q. A restaurant owner plans a menu, hires staff, supervises cooking, and ensures customer satisfaction.

Identify and explain the functions of management involved.

#### **3. Division of Work**

Q. In a factory, tasks are divided among workers to increase efficiency.

Which principle is applied? Explain its importance.

#### **4. Discipline in Office**

Q. Employees in a company follow rules and respect authority, leading to smooth functioning.

Identify the principle and explain.

### **5. Dynamic Environment**

Q. A business adapts quickly to changes in customer preferences and technology.

Explain how management is a dynamic function.

## **MONA MODERN ENGLISH MEDIUM SCHOOL SARANGARH CLASS - 12th COMMERCE (EM) SUBJECT - MACROECONOMICS**

1. Explain the circular flow of income in a two-sector economy with the help of a diagram.
2. What are leakages and injections? Explain their impact on the circular flow of income.
3. Differentiate between stock and flow variables with suitable examples.
4. Explain the concept of final goods and intermediate goods. Why is this distinction important?
5. Define national income. Explain various aggregates: GDP, GNP, NDP, and NNP.
6. Distinguish between GDP at market price and GDP at factor cost.
7. Explain the concept of Net Factor Income from Abroad (NFIA) with a formula.
8. Distinguish between nominal GDP and real GDP. Why is real GDP a better measure of welfare?
9. Explain the expenditure method of measuring national income.
10. What precautions should be taken while estimating national income?

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\*Class 12 Economics – Life Skills Homework\*

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1. Spending Analysis (Money Management)

Track your personal expenses for 5–7 days and classify them into needs and wants.

Question:

Analyze your spending pattern and comment on total expenditure, needs vs wants distribution, and suggest two measures to improve financial discipline.

## 2. Household Shopping Reality Check (Consumer Awareness)

Accompany a family member during a grocery or market purchase OR review a recent shopping bill.

Question:

Identify 5 items purchased and analyze:

Why each item was chosen (price, quality, necessity, brand)

Whether any alternative or cheaper option was possible

What does this tell you about real-life consumer decision-making?

## 3. Daily Money Choice Challenge (Scarcity in Action)

For 2–3 days, assume you have a fixed daily limit (e.g., ₹100–₹200).

Question:

Record how you decide to spend within this limit. What items do you prioritize and what do you avoid? Explain how limited money influences your choices in real life.

## 4. Portfolio Allocation (Financial Decision-Making)

Assume you have ₹10,000 to allocate.

Question:

Divide the amount between:

Liquid assets (cash/bank savings)

Risk-based assets (e.g., stocks or mutual funds – hypothetical)

Justify your allocation and explain the importance of liquidity and investment in financial planning.

## 5. Payment Methods Comparison

Observe or perform two transactions: one cash and one digital (UPI/QR).

Question:

Compare both methods in terms of convenience, speed, and safety, and state your preference with justification.

## **Summer Vacation Home Work**

**Class - 12**

**Sub. - PE**

Ques. 1 what do you mean by sports management? Write down about functions of sports management.

2. Write down various types of committees and their responsibilities.

3. What do you mean by knockout tournament ? Draw a Fixture of 17 teams in Knock-out based tournaments.

4. What do you mean by tabular method ? Draw a Fixture of odd no. 9 teams in tabular method

5. Write down the exercise guidelines of WHO for different age groups.

6. What do you mean by Postural Spinal Deformities ? How can you correct it by which type of yoga or exercise

7. Explain female Athlete Traid like Osteoporosis, Amenorrhea and Eating Disorders.

8. Explain women's participation in sports . Write down any 10 International female players' names.

9. What is obesity? write in detail the procedure, benefits and precautions about any two asanas for curing obesity.

10. What do you mean by diabetes? Discuss the procedure , benefits and Contraindications of any 2 Asana for curing diabetes.

Life skill related questions:-

1. Describe the role of life skills in managing stress and competition pressure.

2. Explain the importance of decision-making and problem-solving skills in sports.

3. How do life skills help in teamwork and leadership?

4. Explain communication skills and interpersonal relationships in sports.

5. Do Exercise daily for your better life like Yoga , Meditation and Suryanamskar.

## **Summer Vacation Home Work**

**Class - 12th**

**Sub. - Yoga**

Ques. 1 What do you mean by Shatkarma ? Explain Nauli Kriya .

2. Explain procedure , benefits and precautions of Pashchimottanasana.

3. Explain procedure, benefits and precautions of Bhramari Pranayama .

4. When did celebrate International Yoga Day? What are the careers in Yoga .

5. How Yoga Asana is different from exercise.

6 . Explain procedure, benefits and precautions of Dauti Kriya .

7. What do you mean by Asana ? How many types of asana and explain procedures , benefits and precautions of Sarvaangasana.

8 . What do you mean by Pranayama? Explain procedure , benefits and precautions of Shitali Pranayama.

9 . Explain procedure,benefits and precautions of Suryanamaskar .

10 . Write down 3-3 Asana's name in Standing , Sitting , Lying - Supine and Proneline poses.

Life skill related questions:-

1. Describe the role of life skills in managing stress and competition pressure.

2. Explain the importance of decision-making and problem-solving skills in sports.

3. How do life skills help in teamwork and leadership?

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हिन्दुस्तानी शास्त्रीय संगीत (गायन)

**Summer Holiday Homework**

कक्षा 12वीं

प्रश्न 1) ग्राम — मूर्च्छना क्या है? संक्षेप में वर्णन कीजिए ।

प्रश्न 2) अलंकार को उदाहरण सहित परिभाषित कीजिए ।

प्रश्न 3) खटका क्या है? समझाइए ।

प्रश्न 4) कण क्या है? समझाइए ।

प्रश्न 5) संगीत परिजात का संक्षिप्त वर्णन कीजिए ।

प्रश्न 6) तानपुरा मिलाने की विधि का वर्णन कीजिए ।

प्रश्न 7) रूपक ताल का परिचय लिखिए । इस ताल का ठाह दुगुन तिगुन चौगुन लिखने का तथा ताली खाली देकर बोलने का अभ्यास कीजिए ।

प्रश्न 8) झपताल का परिचय लिखिए । इस ताल का ठाह दुगुन तिगुन चौगुन लिखने का तथा ताली खाली देकर बोलने का अभ्यास कीजिए ।

प्रश्न 9) धमार ताल का परिचय लिखिए । इस ताल का ठाह दुगुन तिगुन चौगुन लिखने का तथा ताली खाली देकर बोलने का अभ्यास कीजिए ।

प्रश्न 10) उस्ताद बड़े गुलाम अली खान जी का जीवन परिचय लिखिए तथा उनका भारतीय संगीत में योगदान को लिखिए ।

प्रश्न 11) राग भैरव का सामान्य परिचय लिखते हुए इस राग की विशेषताओं को लिखिए ।

प्रश्न 12) राग भैरव का सरगमगीत, लक्षणगीत, छोटा ख्याल का स्वरलिपि लिखने का अभ्यास तथा ताली खाली देकर गायन का अभ्यास कीजिए ।

प्रश्न 13) राग बागेश्री का सामान्य परिचय लिखते हुए इस राग की विशेषताओं का वर्णन कीजिए ।

प्रश्न 14 ) राग बागेश्री का सरगमगीत, लक्षणगीत, छोटा ख्याल का स्वरलिपि लिखने का अभ्यास तथा ताली खाली देकर गायन का अभ्यास कीजिए ।

प्रश्न 15) राग मालकौंस का सामान्य परिचय लिखते हुए इस राग की विशेषताओं का वर्णन कीजिए ।

प्रश्न 16) राग मालकौंस का सरगमगीत लक्षणगीत छोटा ख्याल का स्वरलिपि लिखने का अभ्यास तथा ताली खाली देकर गायन का अभ्यास कीजिए ।

प्रश्न 17) मन लागो मेरो यार फकीरी में भजन का अभ्यास कीजिए ।

प्रश्न 18) धमार गायन का दुगुन और चौगुन करते हुए गाने का अभ्यास कीजिए ।

