



BIRLA PUBLIC SCHOOL GANGANAGAR

SUMMER HOLIDAY HOMEWORK

Session: 2026-27

Class - XI

Subject- English

Q.1: Summer Journey into Timeless Wisdom

Have you ever wondered how ancient words spoken thousands of years ago still whisper truths into our modern lives?

This summer, step into the world of timeless wisdom through the Bhagwad Gita and the Guru Granth Sahib Ji.

Reflect, imagine, and create as you listen to the voice of ages – and discover the warrior and sage within you!

Objective:

- To cultivate wisdom, reflection, and creativity by engaging with the teachings of the Bhagwad Gita and the Guru Granth Sahib Ji through reading or listening.

Compulsory Tasks:

1. Wisdom Diary (Daily Entry)
2. Podcast Homework: (Weekly Task)

General Requirements:

- Use your English notebook for your writing work according to your requirement.
- Language: Simple, clear, correct, and reflective English.
- Presentation: Neatly handwritten or typed, using headings, margins, and proper structure.
- Creativity: Add small decorative elements like simple borders, motifs, or scripture-related symbols.
- Authenticity: Personal thoughts and reflections are highly valued.

Submission Guidelines:

- Submit all your work neatly arranged.
- Mention your Name, Class, Section, and Roll Number clearly on the cover page.

Date of Submission: 6th July 2026

Evaluation Criteria:

Depth of understanding and reflection

Creativity and original expression

Language and articulation

Neatness and presentation

Important Note:

- You may refer to simple English translations available on YouTube.
- Choose teachings that truly inspire you.
- Let your entries reflect your own voice, thoughts, and feelings.
- Plagiarism will not be entertained – originality will be appreciated.

COMPULSORY TASKS:

You have to attempt both the tasks given in this section.

Section 1- (a) Wisdom Diary (Writing Assignment - Daily Reflection Task)

Daily Task:

- Read one Shloka (Bhagwad Gita) OR one Hymn (Guru Granth Sahib Ji). (You are free to choose any other scripture.)
- Listen to simple explanation if needed from digital audio & video platforms.
- Write your reflections by answering:

Weekly Wisdom Diary Questions:

1. Quote the Shloka/Hymn.
2. What does this Shloka/Hymn teach me? (2-3 lines)
3. How can I apply this teaching in my life today? (One real situation)
4. Draw a small symbol or doodle related to the idea.

5. Reflecting on the teachings from either the Bhagwad Gita or the Guru Granth Sahib Ji.

Section 1- (b) Podcast Homework (Speaking Assignment - Every Week)

Podcast Recording Task:

- Select one Shloka or Hymn every week.
- Students are encouraged to use digital platforms such as YouTube for understanding concepts and may use basic audio/video editing tools for podcast creation. Proper file naming and digital submission practices should be followed.
- Record yourself and your family members in answering these points:

Podcast Guiding Questions:

1. Recite the Shloka or Hymn (try with correct pronunciation).
2. What is the central idea? (Explain simply in English.)
3. Why did you choose this today? (One personal reason)
(Record in English)
4. Send your podcast videos to your subject teacher's mail id:
ankur090176@bpsg.edu.in

Q2. (Art Integration Project – Explore Through Brochures)
Digital Travel Brochure Design (ICT Integrated Task)

Explore the Wonders of Rajasthan and Nagaland!

Ever wondered what it's like to explore the royal palaces of Rajasthan or the serene landscapes of Nagaland?

Now's your chance to showcase these incredible destinations in your very own travel brochure!

Objective:

Each student will create one unique digital travel brochure integrating the culture, heritage, art, cuisine, festivals, eco-tourism, sports, or

traditions of both Rajasthan and Nagaland.

The brochure should creatively compare, connect, and showcase the richness of the two states through attractive design, visuals, and persuasive writing.

Each brochure should be creative, colourful, and written using engaging and persuasive language.

<u>S.No.</u>	<u>Student Name</u>	<u>Alloted Topic</u>
1.	ALISHA:	Climate and Weather Patterns of Rajasthan and Nagaland: A Comparative Scientific Study
2.	DHANYA:	Biodiversity and Unique Flora & Fauna of Rajasthan and Nagaland
3.	GUNTAS SINGH JAKHAR:	Renewable Energy Resources in Rajasthan and Sustainable Living Practices in Nagaland
4.	GURLEEN:	Water Conservation Techniques of Rajasthan and Natural Water Systems of Nagaland
5.	HEMANT KUMAR SINGAL:	Geological Features: Deserts of Rajasthan and Hills of Nagaland
6.	MANNAT MAAN:	Eco-Tourism and Environmental Conservation in Rajasthan and Nagaland
7.	NAVDEEP KAUR:	Medicinal Plants and Traditional Healing Practices of Rajasthan and Nagaland
8.	RAKSHA:	Scientific Study of Traditional Architecture and Climate-Responsive Housing
9.	REET:	Agricultural Practices and Crop Diversity in Rajasthan and Nagaland
10.	SHIVRANJANI:	Wildlife Adaptations in the Desert Ecosystem of Rajasthan and Forest Ecosystem of Nagaland
11.	TRIPTI SINGAL:	Food Science Behind the Traditional Cuisines of Rajasthan and Nagaland
12.	YASHKIRAT KAUR:	Impact of Geography and Climate on Lifestyle, Language, and Culture in Rajasthan and Nagaland
13.	AADITYA AGGARWAL:	Tourism Industry and Economic Growth in Rajasthan and Nagaland

14. BHAVYA PERIWAL: Handicraft and Handloom Industries of Rajasthan and Nagaland: From Local Markets to Global Trade
15. DIYANA: Entrepreneurship Opportunities in Cultural and Eco-Tourism of Rajasthan and Nagaland
16. KRIT KALRA: Role of Festivals in Boosting Tourism and Local Businesses in Rajasthan and Nagaland
17. KRITI JAIN: Traditional Jewellery Business and Export Potential of Rajasthan and Nagaland
18. KUNAL DUDI: Sustainable Tourism and Its Impact on Employment Generation in Rajasthan and Nagaland
19. SABHYA MADAN: Branding and Marketing Strategies Used to Promote Rajasthan and Nagaland Tourism
20. VISHESH CHAWLA: Changing Consumer Preferences in Traditional Crafts, Cuisine, and Cultural Tourism
21. AARIKA: Cultural Identity and Social Traditions of Rajasthan and Nagaland
22. ANSHI: Role of Folk Literature and Oral Traditions in Rajasthan and Nagaland
23. AYAN MADAR PATEL: Impact of Geography on Lifestyle and Human Settlements in Rajasthan and Nagaland
24. KARTIK: Tribal Communities and Social Structure of Rajasthan and Nagaland
25. KHUSHI CHOUDHARY: Women and Their Contribution to Cultural Heritage in Rajasthan and Nagaland
26. KUSHAGAR KARWASRA: Comparative Study of Festivals and Community Life in Rajasthan and Nagaland
27. PARTAPKARAN BRAR: Traditional Art Forms as a Reflection of Society and History
28. RANDEEP SINGH KHICHAR: Historical Evolution of Rajasthan and Nagaland: Heritage and Identity
29. RIDHI: Tourism as a Medium of Cultural Exchange in Rajasthan and Nagaland
30. UDIT: Influence of Religion and Beliefs on Art and Architecture in Rajasthan and Nagaland

31. YASHNOOR GILL: Preservation of Indigenous Languages and Cultural Expressions
32. GURRATAN SINGH: Unity in Diversity: Comparative Cultural Study of Rajasthan and Nagaland

.Brochure Design Requirements:

- Create the brochure using digital tools such as Canva, Microsoft PowerPoint, or Google Slides
- Set page size to A4 (Landscape preferred)
- Divide the page into 3 columns to represent a tri-fold brochure (4 panels)
- Use the given links for help:

<https://youtube.com/shorts/oGgC5eGIwZY?si=Rh-EV6hWDzfJAN0P>

<https://youtu.be/uCcPDSE6vLw?si=6VO6CzqL3Z5WzErc>

- Title and Slogan: Every brochure must have a catchy title and a short slogan.
- Sections: Proper sections like Introduction, Highlights, Interesting Facts, and Conclusion.
- Pictures: Include hand-drawn pictures, printed images, borders, or traditional patterns.
- Language: Use persuasive, engaging, and grammatically correct English.
- Neatness: Keep the layout clean and colourful. Avoid overcrowding text.
- Creativity: Design the brochure to look attractive and professional.

ESTD. 2019

What to Include in Your Brochure:

- Introduction to Rajasthan and Nagaland (as per the theme you select)
- Highlight 3–4 major places, events, or products for each state
- Fun/interesting facts to grab attention
- Short captions, slogans, and attractive lines

- Maps, traditional motifs, or cultural symbols (optional but appreciated)

Presentation:

- Use colours, designs, headings, and bullet points to make the brochure look beautiful.
- You may make it digitally (using Canva/PowerPoint) or by hand (recommended for Art Integration).
- Decorate without overcrowding the information. Balance visuals and text.

Submission Instructions:

- Submit your project neatly compiled.
- Last Date of Submission: 6th July 2026

Evaluation Criteria:

Content accuracy and coverage

Creativity and presentation

Language and expression

Neatness and effort

Important Note:

Original work will be appreciated.

Avoid copying large content from the internet.

Let your brochure reflect your creativity and understanding!

Q.3 Summer Life Skills Digital Journal: Learn, Practice, and Shine!

Instructions:

Every week, learn or practice one home-related skill (examples: financial awareness, cooking a simple dish, cleaning, helping out siblings, fixing small things, managing house budget, etc.).

Maintain your record in the given table.

Take a picture of yourself while practicing each skill as proof of your journey toward becoming self-dependent.

Daily Learning Table:

Date	Skill/ Task Learned	How I did it?	What I learnt ?	Feeling (Happy/ Proud/ Chal- lenged)	Picture attache d (Yes/ No)

(Extend the table if required. You can go with Microsoft Excel or Google Sheet Table.)

Weekly Reflection Table:

Week Number	Most Interesting Task This Week	Lesson Learnt (in 3-4 lines)
Week 1		
Week 2		
Week 3		
Week 4		
Week 5		
Week 6		
Week 7		

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REPORT

Summer Life Skills Journal - Final Reflection

Name: _____

Class & Section: _____

Roll Number: _____

My Journey of Growth

1. The most useful skill I learned:

2. The most challenging task for me was:

3. My proudest achievement during this project:

4. A memorable moment I captured:

5. One lesson I will always remember:

Final Declaration

"I hereby declare that I have completed my Summer Life Skills Journal honestly and learned valuable lessons for becoming more independent."

Signature of Student: _____

Signature of Parent/Guardian: _____

“The focus of this project is regular effort and honest expression, not perfection. Students are encouraged to keep their work simple, meaningful, and stress-free.”



Business Studies

General Instructions:

- Make front page for your *Work* stating **BIRLA PUBLIC SCHOOL GANGANAGAR**, followed vertically by **SUMMER HOLIDAY HOMEWORK, SESSION-2026-27, SUBJECT -Business Studies (054), YOUR NAME AND ROLL NO, CLASS, SUBJECT, TEACHER NAME.**
- Write in good handwriting.
- Complete the work neatly with proper numbering.
- Use your own creativity to make it look attractive.
- Do all the work on A4 Sheets **(Do not solve any Question on Class Work Notebook)**
- **Share the Question paper Word and PDF file to Subject teacher through mail.**

• **Mail Id:**

1. Art Integration Project (Manipur & Rajasthan)

Objective:

To understand cultural, geographical, economic, and social connections between **Manipur** and **Rajasthan**.

Instructions:

- Prepare a **handwritten project (10-12 pages)**.
- Include **maps, pictures, charts, and creative art work**.
- Follow proper format: *Cover Page* → *Index* → *Content* → *Conclusion* → *Bibliography*.

Roll Number-wise Topic Distribution:(Each student must make an **individual Project**.)

Roll No.	Topic
1	<p>Forms of Business Organisation in Rajasthan and Manipur</p> <p>Business Studies Concept: Sole Proprietorship, Partnership, Cooperative Societies</p> <p>Project Focus: Study local businesses such as handicrafts, handloom, pottery, bamboo work, and tourism. Compare how businesses are managed in both states.</p> <p>Art Integration Ideas: Decorate charts using Rajasthani folk patterns and Manipuri textile designs. Draw business setup models of local markets.</p>
2	<p>Traditional Industries of Rajasthan and Manipur</p> <p>Business Studies Concept: Industry and Types of Industries</p> <p>Project Focus: Compare: Rajasthan: Marble, textiles, blue pottery Manipur: Handloom, bamboo crafts, black pottery Study importance in employment and exports.</p> <p>Art Integration Ideas: Create handmade industry models. Use folk-art borders and product sketches.</p>
3	<p>Role of Transport and Communication in Trade</p> <p>Business Studies Concept: Internal Trade and Business Services</p> <p>Project Focus: Study how transport and communication support business activities. Compare tourism transport, local trade routes, and digital communication.</p> <p>Art Integration Ideas: Prepare route maps with artistic state symbols. Design posters showing traditional and modern transport.</p>
4	<p>4. Entrepreneurship Opportunities in Rajasthan and Manipur</p> <p>Business Studies Concept: Entrepreneurship and Emerging Businesses</p> <p>Project Focus: Study startup ideas based on tourism, handicrafts, food processing, and eco-products. Analyse government support for entrepreneurs.</p> <p>Art Integration Ideas: Make startup logo designs. Prepare creative business idea posters</p>
5	<p>Marketing of Local Products</p> <p>Business Studies Concept: Trade and Commerce</p>

	<p>Project Focus: Compare marketing methods for: Bandhani, puppets, jewellery of Rajasthan Manipuri shawls, bamboo products, handloom items Study online and offline marketing methods. Art Integration Ideas: Design advertisements and packaging labels. Create catalogue pages with traditional artwork</p>
6	<p>Consumer Awareness in Local Markets Business Studies Concept: Consumer Protection and Ethical Business Project Focus: Study consumer rights and fair-trade practices. Compare shopping habits and local market systems. Art Integration Ideas: Prepare slogan posters and awareness charts. Use traditional color combinations and folk motifs</p>
7	<p>Tourism as a Service Industry Business Studies Concept: Business Services Project Focus: Study tourism businesses in Rajasthan and Manipur. Compare hotels, guides, transport, handicraft markets, and cultural tourism. Art Integration Ideas: Create tourism brochures and travel posters. Draw famous tourist destinations.</p>
8	<p>Business Ethics and Cultural Values Business Studies Concept: Business Ethics and Social Responsibility Project Focus: Study how local traditions influence business ethics. Compare hospitality, customer relations, and fair business practices. Art Integration Ideas: Make cultural value charts. Include folk dance, attire, and art illustrations.</p>

Case Study (Compulsory):

Q1. Read the case carefully and answer the questions:

Ravi started a small grocery shop in his locality. Initially, he managed everything himself, but as demand increased, he hired two employees. He maintains records of sales and purchases and tries to provide quality products at reasonable prices.

Questions:

- Q.1 Identify the type of economic activity Ravi is engaged in.
- Q.2 State any two characteristics of business visible in the case.
- Q.3 Why did Ravi hire employees?
- Q.4 Mention any two objectives of business Ravi is trying to achieve.

Long Answer Questions

Answer the following (in 100–150 words each):

- Q.1 Explain the objectives of business.
- Q.2 Describe the different types of industries with examples.
- Q.3 Explain the auxiliaries to trade and their importance.
- Q.4 What is the role of profit in business?

Project Work (Very Important)

Practical Project (Any ONE):

👉 Option 1: Local Business Study

Visit a nearby shop/business.

Collect information on:

Type of business

Products/services offered

Number of employees

Sources of finance

Problems faced

Prepare a project file (5-7 pages) with pictures if possible.

OR

👉 Option 2: Business Plan

Create a simple business idea (e.g., bakery, clothing shop, tuition center).

Include:

Business name

Product/service

Target customers

Estimated cost and profit

Marketing strategy

Suggested Project File Format

❖ Cover Page

❖ Certificate

❖ Acknowledgement

❖ Index

❖ Introduction

❖ Objectives

❖ Main Content

❖ Comparative Study of Rajasthan and Manipur

❖ Conclusion

❖ Bibliography

Subject - Accountancy

Section A: Theory (Write in Notebook)

Q.1 Define Accounting and explain its objectives.

Q.2 Explain the following terms with examples:

Assets, Liabilities, Capital, Revenue, Expenses

Q.3 Explain the Accounting Equation with at least 5 examples.

Q.4 What is Double Entry System? State its advantages.

Q.5 Explain different types of accounts with examples.

Section B: Practical Questions

Q1. Journal Entries. Record the following transactions in Journal:

- Started business with cash ₹1,00,000
- Purchased goods for cash ₹20,000
- Sold goods on credit to Ram ₹10,000
- Paid rent ₹2,000
- Received cash from Ram ₹8,000

Q2. Show the effect on Accounting Equation:

- Started business with ₹50,000

	a. facts c. both (a) and (b)	b. normative statement d. none of these																
5	When an economy is operating on the PPC, it indicates a. potential output > actual output b. potential output < actual output c. potential output = actual output d. None of these																	
6	Which of the following is related to problem of how to produce? a. Factoral distribution of income b. The choice of technique c. The choice of product d. None of these																	
7	The opportunity cost of 100kg of rice produced on a land which can also produce 80 tons of wheat is: a. 100 kg of wheat b. 80 tones of wheat c. 8000 tones of wheat d. none of these																	
8	Concavity of PPC implies: a. increasing slope b. decreasing slope c. constant slope d. none of these																	
9	When some resources are shifted from use 1 to use 2 the marginal rate of transformation: a. increases b. decreases c. remain constant d. is zero																	
10	Statement 1: Economic problem is problem of economizing the resource Statement 2: Scarcity is a situation in which there is enough of resources to meet all human wants a. Both the statement are true b. Both the statement are false c. Statement 1 is true statement 2 is false d. Statement 1 is false, statement 2 is true																	
11	<table border="1"> <tr> <td>Class interval</td> <td>20-25</td> <td>25-30</td> <td>30-35</td> <td>35-40</td> <td>40-45</td> <td>45-50</td> <td>50-55</td> </tr> <tr> <td>frequency</td> <td>10</td> <td>12</td> <td>8</td> <td>20</td> <td>11</td> <td>4</td> <td>5</td> </tr> </table>	Class interval	20-25	25-30	30-35	35-40	40-45	45-50	50-55	frequency	10	12	8	20	11	4	5	From the above given data calculate mean using assumed mean and direct method
Class interval	20-25	25-30	30-35	35-40	40-45	45-50	50-55											
frequency	10	12	8	20	11	4	5											
12	<table border="1"> <tr> <td>Marks</td> <td>60</td> <td>75</td> <td>63</td> <td>59</td> <td>55</td> </tr> <tr> <td>Weight</td> <td>2</td> <td>1</td> <td>5</td> <td>5</td> <td>3</td> </tr> </table>	Marks	60	75	63	59	55	Weight	2	1	5	5	3	Calculate the weighted mean from the following data:				
Marks	60	75	63	59	55													
Weight	2	1	5	5	3													

13	In the following frequency distribution, if the arithmetic mean is 45.6, find out missing frequency							
	Wages	10-20	20-30	30-40	40-50	50-60	60-70	70-80
	Number of worker	5	6	7	x	4	3	9
14	Following information pretains to the daily income of 150 families. Calculate arithmetic mean							
	Income				No. of families			
	More than 75				150			
	More than 85				140			
	More than 95				115			
	More than 105				95			
	More than 115				70			
	More than 125				60			
	More than 135				40			
More than 145				25				
15	The mean monthly salary paid to 77 employees in a company was rs.78. the mean salary of 32 of them was rs. 45 and of other 325 was rs. 82. What was the mean salary of the remaining?							

II Project work and Art Integrated work for class XI

Name	Project work	Art Integrated Project
Aarika	Theory of demand	Elasticity of supply
Pratap Karan	Theory of Supply	Concept of cost
Diyana	Elasticity of supply and demand	Production function and return to factor
Aaditya	Concept of Cost	Economics and economy
Bhavya Periwal	Forms of Markert	Measure of central tendency- Arithmetic mean
Krit Kalara	Solar Energy, a Cost-Effective Comparison with Conventional Energy Sources	Theory of demand
Kunal Dudi	Bumper Production- Boon or Bane for the farmer	Census and sample method of collecting data
Kriti jain	Central problem of an Economy	Organization of data
Sabhya Madaan	Concept of Revenue	Presentation of data
Vishesh chawala	Collection of data	Digital India

Expectation

- Project should be 3500-4500 words excluding diagram and graphs.

- It will be independent and self directed piece of study.

III Question Paper (20 marks)

Blueprint

1	Section A from question 1-8 MCQ	$8 \times 0.5 = 4$
2	Section B from question 9-14 Very short answer type question	$6 \times 1 = 6$
3	Section C question 15-17	$3 \times 2 = 6$
4	Section D Long answer type question 18	$1 \times 4 = 4$
	Total	20

Syllabus

- Economics and Economy
- Central problems of the economy

Subject -Mathematics

- If A and B are two sets, then $A \cap (A \cup B)$ equals :
a. A b. B c. \emptyset d. $A \cap B$
- Two finite sets have m and n elements. The number of subsets of the first set is 112 more than that of the second set. The values of m and n are, respectively,
a. 4,7 b. 7,4 c. 4,4 d. 7,7
- The set $(A \cap B)^c \cup (B \cap C)$ is equal to
a. $A^c \cup B \cup C$ b. $A^c \cup B$ c. $A^c \cup C$ d. $A^c \cap B$
- In a class of 60 students play cricket and 20 students play tannins, and 10 students play both the games. Then, the number of students who play neither is
a. 0 b. 25 c. 35 d. 45
- A survey shows that 63% of the people watch a News Channel whereas 76% watch another channel. If x% of the people watch both channel, then
a. $x = 35$ b. $x = 63$ c. $39 \leq x \leq 63$ d. $x = 39$
- if X and Y are two sets and X^c denotes the complement of X, then $X \cap (X \cup Y)^c$ is equal to
a. X b. Y c. \emptyset d. $X \cap Y$
- In a town of 840 persons, 450 persons read Hindi, 300 read English and 200 read both. Then the number of person read neither is
a. 210 b. 290 c. 180 d. 260
- Let $n(A) = m$, and $n(B) = n$. Then the total number of non- empty relations that can be defined from A to B is
a. mn b. nm-1 c. mn-1 d. $2^{mn}-1$
- Range of $f(x) = \frac{1}{1-2\cos x}$ is
a. $[\frac{1}{3}, 1]$ b. $[-1, \frac{1}{3}]$ c. $(-\infty, -1) \cup [\frac{1}{3}, \infty)$ d. $[-\frac{1}{3}, 1]$
- If $[x]2-5[x]+6 = 0$, where $[]$ denote the greatest integer function, then
a. $x \in [3,4]$ b. $x \in (2,3]$ c. $x \in [2,3]$ d. $x \in [2,4)$
- Let $f(x) = \sqrt{1+x^2}$, then

a. $f(xy) = f(x) \cdot f(y)$ b. $f(xy) \geq f(x) \cdot f(y)$ c. $f(xy) \leq f(x) \cdot f(y)$ d. None of these

12. Domain of $\sqrt{a^2 - x^2}$ ($a > 0$) is

a. $(-a, a)$ b. $[-a, a]$ c. $[0, a]$ d. $(-a, 0]$

13. If $f(x) = ax + b$, where a and b are integers, $f(-1) = -5$ and $f(3) = 3$, then a and b are equal to

a. $a = -3, b = -1$ b. $a = 2, b = -3$ c. $a = 0, b = 2$ d. $a = 2, b = 3$

14. The domain of the function f defined by $f(x) = \sqrt{4-x} + \frac{1}{\sqrt{x^2-1}}$ is equal to

a. $(-\infty, -1) \cup (1, 4]$ b. $(-\infty, -1] \cup (1, 4]$ c. $(-\infty, -1) \cup [1, 4]$ d. $(-\infty, -1) \cup [1, 4)$

15. The domain and range of the real function f defined by $f(x) = \frac{4-x}{x-4}$ is given by

a. Domain = \mathbb{R} , Range = $\{-1, 1\}$ b. Domain = $\mathbb{R} - \{1\}$, Range = \mathbb{R}
c. Domain = $\mathbb{R} - \{4\}$, Range = $\{-1\}$ d. Domain = $\mathbb{R} - \{-4\}$, Range = $\{-1, 1\}$

16. The domain and range of real function f defined by $f(x) = \sqrt{x-1}$ is given by

a. Domain = $(1, \infty)$, Range = $(0, \infty)$ b. Domain = $[1, \infty)$, Range = $(0, \infty)$
c. Domain = $[1, \infty)$, Range = $[0, \infty)$ d. None of these

17. The domain of the function f given by $f(x) = \frac{x^2+2x+1}{x^2-x-6}$

a. $\mathbb{R} - \{3, -2\}$ b. $\mathbb{R} - \{-3, 2\}$ c. $\mathbb{R} - [3, -2]$ d. $\mathbb{R} - (3, -2)$

18. If $\sin\theta + \operatorname{cosec}\theta = 2$, then $\sin^2\theta + \operatorname{cosec}^2\theta$ is equal to

a. 1 b. 4 c. 4 d. None of these

19. If $f(x) = \cos^2x + \sec^2x$, the

a. $f(x) < 1$ b. $f(x) = 1$ c. $2 < f(x) < 1$ d. $f(x) \geq 2$

20. If $\tan x = \frac{1}{2}$ and $\tan y = \frac{1}{3}$, then the value of $x+y$ is

a. $\frac{\pi}{6}$ b. π c. 0 d. $\frac{\pi}{4}$

21. Which of the following is not correct?

a. $\sin x = -\frac{1}{5}$ b. $\cos x = 1$ c. $\sec x = \frac{1}{2}$ d. $\tan x = 20$

22. The value of $\tan 10^\circ \tan 20^\circ \tan 30^\circ \dots \dots \dots \tan 89^\circ$ is

a. 0 b. 1 c. $\frac{1}{2}$ d. not defined

23. The value of $\frac{1 - \tan^2 15^\circ}{1 + \tan^2 15^\circ}$ is

a. 1 b. $\sqrt{3}$ c. $\frac{\sqrt{3}}{2}$ d. 2

24. The value of $\cos 10^\circ \cos 20^\circ \cos 30^\circ \dots \dots \dots \cos 179^\circ$ is

a. $\frac{1}{\sqrt{2}}$ b. 0 c. 1 d. -1

25. If $\tan x = 3$ and x lies in third quadrant, then the value of $\sin x$ is

a. $\frac{1}{\sqrt{10}}$ b. $-\frac{1}{\sqrt{10}}$ c. $\frac{-3}{\sqrt{10}}$ d. $\frac{3}{\sqrt{10}}$

26. The value of $\tan 75^\circ - \cot 75^\circ$ is equal to

a. $2\sqrt{3}$ b. $2 + \sqrt{3}$ c. $2 - \sqrt{3}$ d. 1

27. Which of the following is correct?

a. $\sin 10^\circ > \sin 1$ b. $\sin 10^\circ < \sin 1$ c. $\sin 10^\circ = \sin 1$ d. $\sin 10^\circ = \frac{\pi}{180} \sin 1$

28. If $\tan x = \frac{m}{m+1}$, $\tan y = \frac{1}{2m+1}$, then $x+y$ is equal to

a. $\frac{\pi}{6}$ b. π c. 0 d. $\frac{\pi}{4}$

29. The minimum value of $3\cos x + 4\sin x + 8$ is

- a. 5 b. 9 c. 7 d. 3

30. The value of $\tan 3A - \tan 2A - \tan A$ is equal to

- a. $\tan 3A \tan 2A \tan A$ b. $-\tan 3A \tan 2A \tan A$ c. $\tan A \tan 2A - \tan 2A \tan 3A - \tan 3A \tan A$ d. None of these

31. The value of $\sin(450+x) - \cos(450-x)$ is

- a. $2\cos x$ b. $2\sin x$ c. 1 d. 0

32. The value of $\cot\left(\frac{\pi}{4} + \theta\right) \cot\left(\frac{\pi}{4} - \theta\right)$ is

- a. -1 b. 0 c. 1 d. Not defined

33. The value of $\cos 120 + \cos 840 + \cos 1560 + \cos 1320$ is

- a. $\frac{1}{2}$ b. 1 c. $-\frac{1}{2}$ d. $\frac{1}{8}$

34. if $\tan A = \frac{1}{2}$, $\tan B = \frac{1}{3}$, then $\tan(2A+B)$ is equal to

- a. 1 b. 2 c. 3 d. 4

35. the value of $\sin\frac{\pi}{10} \sin\frac{13\pi}{10}$ is

- a. $\frac{1}{2}$ b. $-\frac{1}{2}$ c. $-\frac{1}{4}$ d. 1

36. the value of $\sin 500 - \sin 700 + \sin 100$ is equal to

- a. 1 b. 0 c. $\frac{1}{2}$ d. 2

37. if $\sin x + \cos x = 1$, then the value of $\sin 2x$ is equal to

- a. 1 b. $\frac{1}{2}$ c. 0 d. -1

38. if for real values of x , $\cos x = x + \frac{1}{x}$, then

- a. x is an acute angle b. x is right angle c. x is an obtuse angle d. No value of x

In the following questions, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

(a) Both A and R are true and R is the correct explanation of A.

(b) Both A and R are true but R is not the correct explanation of A.

(c) A is true but R is false.

(d) A is false but R is true.

39. Assertion (A): If $(x, 1)$, $(y, 2)$ and $(z, 1)$ are in $A \times B$ and $n(A) = 3$, $n(B) = 2$, then $A = \{x, y, z\}$ and $B = \{1, 2\}$.

Reason (R): If $n(A) = 3$ and $n(B) = 2$, then $n(A \times B) = 6$.

40. Assertion (A): The value of $\theta = \pi/3$ or $2\pi/3$, when θ lies between $(0, 2\pi)$ and $\sin 2\theta = 3/4$.

Reason (R): $\sin \theta$ is positive in the first and second quadrant.

41. If $A = \{3, 5, 7, 9, 11\}$, $B = \{7, 9, 11, 13\}$, $C = \{11, 13, 15\}$ and $D = \{15, 17\}$

Find the following:

- (i). $(A \cup D) \cap (B \cup C)$ (ii). $B \cap C$

42. Find the domain and range of the real functions: $\sqrt{16 - x^2}$

43. Let $f = \{(1,1), (2,3), (0,-1), (-1, -3)\}$ be a function from Z to Z defined by $f(x) = ax + b$, for some integers a, b . Determine a, b .

44. Find the value of $\sin 15^\circ$

45. Prove that : $\cot x \cot 2x - \cot 2x \cot 3x - \cot 3x \cot x = 1$

General Instructions:

- Make front page for your *Work* stating **BIRLA PUBLIC SCHOOL GANGANAGAR**, followed vertically by **SUMMER HOLIDAY HOMEWORK, SESSION-2026-27, SUBJECT -MUSIC INSTRUMENT NAME AND ROLL NO, CLASS, SUBJECT, TEACHER NAME.**
- Write in good handwriting.
- Complete the work neatly with proper numbering.
- Use your own creativity to make it look attractive.
- Do all the work on A4 Sheets

1. Art Integration Project (Music)

Objective:

To understand Naad Shruti Sawar Saptak Thaata Taal Jaati Teentaal Ektaal Chautaal Raag Bihag Bhimpilasi Bhairavi Tanpura ,Veena , Sitar, Harmonium, Tabla.

Name-wise Topic Distribution :(Each student must make an individual Project.)

NAME	Topic
Aaditya Agrawal	Write Definition Naad ,Shruti ,Sawar with type
Aayan patel	Write Definition Sapatak ,Thaat with type
Dhanya	Structure of Harmonium instrument with details
Kartik Bishnoi	Write Definition Taal and Laya
Kriti jain	Description of Taal Teentaal with Notation Single Dugun and Chaugun
Krit Kalra	Description of Raag Bihag with Notation
Kunal	Description of Raag Bhimpilasi with Notation
Khusagar	Description of Raag Bhairavi with Notation
Pratap karan	Description of Taal Chautaal with Notation Single Dugun and Chaugun
Randeep khichr	Structure of Tanpura Instrument with details
Sabhya	Structure of Sitar instrument with detail
Uddit saraswat	Structure of Tabla instrument with detail
Vishesh chawala	Structure of Veena instrument with detail
Yashnoor gill	Description of Taal Ektaal with Notation Single Dugun and Chaugun

Class XI – Computer Science (Python)

✓ TASK 1: PRACTICAL FILE (PYTHON PROGRAMMING)

A **separate practical file** is to be maintained for Python programming.

Python Program List

1. Program to print “**Welcome to School**”
2. Program to input name and display greeting
3. Program to find sum of two numbers
4. Program to check whether a number is even or odd
5. Program to find largest of three numbers
6. Program to swap two numbers
7. Program to check whether a number is positive, negative, or zero
8. Program to calculate grade based on marks

9. Program to create a simple calculator using `if-elif`
10. Program to print numbers from 1 to N
11. Program to find sum of first N natural numbers
12. Program to reverse a number
13. Program to find the largest element in a list
14. Program to find sum of elements in a list
15. Program to remove duplicates from a list
16. Program to calculate area of a circle
17. Program to calculate area of a triangle
18. Program to calculate area of a rectangle
19. Program to calculate area of a square
20. Program to calculate perimeter of a square

✦ **Note:** All 20 programs are mandatory and will be evaluated as part of the Practical Assessment.

✓ TASK 2: ART INTEGRATED PROJECT

Topic Allotment (Roll No. Wise)

Roll No. 1-3

Topic: Number Systems through Indian Rangoli Art

Roll No. 4-6

Topic: Flowcharts & Algorithms using Warli Art

Roll No. 7-9

Topic: History of Computers through Traditional Indian Art

Roll No. 10-12

Topic: Python Variables and Data Types through Gond Art

Roll No. 13-15

Topic: Computer System Components as Craft Art

ESTD. 2019