

# D.A.V. CENTENARY PUBLIC SCHOOL

SECTOR-6, BAHADURGARH

Session (2026-27) Class- XII COMMERCE



**“A vacation helps to relieve stress and boredom, gives us a change of scenery, provides us with adventure, and helps to bring us closer to the people in our lives.”**

**By :- E. S. Woods**

***Dear Students,***

**Warm Wishes!**

**We pray and wish the best of health and cheerful times to you. Vacations is a time that we all eagerly wait for. We all make plans to enjoy, to relax and to empower ourselves during these days. This summer vacation the holiday homework is designed for you all to achieve the motto of " Fun and Learn".**

**The activity based assignments will foster curiosity, develop creativity and instill the joy of learning among you all. So, make sure you extract the maximum benefit out of these holidays.**

***Summer Tips:***

- ❖ **Start your day with gratitude and prayers.**
- ❖ **Exercise daily and practice meditation.**
- ❖ **Assist your mother in household chores.**
- ❖ **Pledge for "Eat Right"- Less Sugar, Less Oil and Less Salt**
- ❖ **Wash hands frequently, especially before and after meals**
- ❖ **Read newspaper daily and stay updated with current affairs.**
- ❖ **Water the plants and rejoice the beauty of nature**

## English

### 1) Character Diary Writing

Write diary entries from the perspective of:

\* Saheb (Lost Spring)    \* Charley (The Third Level)    \* Franz (The Last Lesson)

### 2) Quote Collection File

Collect 15–20 important quotes from the chapters and poems with:

\* Speaker/name    \* meaning    \* theme connection

### 3) Book Review/ Movie Review

Watch any good movie /Read any short novel/storybook, and write:

\* summary/ plot    \* favourite character    \* moral/theme    \* personal opinion

### 4) Creative Writing Tasks

#### Alternative Ending

Rewrite the ending of: \*The Third Level                      \*The Tiger King

### 5) Interview Activity:

Interview grandparents/elders on:

“How life has changed over time” Then write an article in 150–200 words.

### 6) Vocabulary Journal

Make a mini dictionary of: 5 new words weekly: meaning, synonym & sentence formation

### 7) RTC (Reference to Context)

Practice Prepare 2 RTCs from each poem (done in class ) with answers.

### 8) Express Yourself

**Write a paragraph in about 150 to 200 words on any one of the topics given below:**

“My dream career”

“If I could travel through time”

“A day without technology”

**9) Write recapitulating points** of all chapters done in literature in the form of:

Mind map/Flowchart/Web chart

### 10) Draft notice on the given topics:

- a) Inter-house Debate competition                      b) Annual Sports Meet
- c) Cultural Benefit Show

### 11) Write a letter to the editor on the following issues:

- a) Problem of Inflation                      b) Proliferation of Coaching Centres

## Maths

1. Let  $A = \{1, 2, 3, 4\}$ . Then how many symmetric relations will be there on set  $A$ ?
2. For real numbers  $x$  and  $y$ , define  $xRy$  iff  $x - y + \sqrt{2}$  is an irrational number. Check this relation for reflexive, symmetric and transitive.
3. If  $N$  denotes the set of natural number and  $R$  is the relation on  $N \times N$  defined by  $(a, b) R (c, d)$  if  $ad(b + c) = bc(a + d)$ . show that  $R$  is equivalence relation.
4. Prove that the function  $f : N \rightarrow N$  defined by  $f(x) = x^2 + x + 1$  is one-one but not in-to.
5. Let  $f : [2, \infty) \rightarrow R$  be the function defined by  $f(x) = x^2 - 4x + 5$ , then find the range of  $f$ .
6. The domain of  $f(x) = \cos^{-1}(x^2 - 4)$  ?
7. If  $\cos^{-1} \alpha + \cos^{-1} \beta + \cos^{-1} \gamma = 3\pi$ , then find value of  $\alpha(\beta + \gamma) + \beta(\gamma + \alpha) + \gamma(\alpha + \beta)$
8. What is one branch of  $\cos^{-1} x$  other than the principal value branch?
9. What is the range of  $f(x) = \sin^{-1} x + \tan^{-1} x + \sec^{-1} x$
10. Evaluate :  $\frac{\sqrt{a+2x} - \sqrt{3x}}{\sqrt{3a+x} - \sqrt{4x}}$  .
11.  $\frac{\tan x - \sin x}{\sin^3 x}$
12. (i)  $\frac{\sqrt{3} \sin x - \cos x}{x - \pi/6}$       (ii)  $\frac{1 + \cos 2x}{(\pi - 2x)^2}$
13. If the function  $f$  defined by  $f(x) = \begin{cases} \frac{1 - \cos c \cos cx}{x \sin x}, & x \neq 0 \\ \frac{1}{2}, & x = 0 \end{cases}$

Is continuous at  $x = 0$ , then find value of  $c$ .

14. For what values of  $k$  is the following function continuous at  $x = -\pi/6$

$$F(x) = \begin{cases} \frac{\sqrt{3} \sin x \cos x + \cos^2 x}{x + \frac{\pi}{6}}, & x \neq -\pi/6 \\ k, & x = -\pi/6. \end{cases}$$

15. If  $f(x) = \frac{\sqrt{2} \cos x \cos x - 1}{\cot \cot x - 1}$ ,  $x \neq \pi/4$ , find the value of  $f(\pi/4)$  so that the function  $f$  become continuous at  $x = \pi/4$ .

16. If  $y = (x + \sqrt{x^2 - 1})^m$ , prove that  $(x^2 - 1) (dy/dx)^2 = m^2 y^2$ .

17. If  $y \sqrt{1 - x^2} + x \sqrt{1 - y^2} = 1$ , prove that  $dy/dx = -\sqrt{\frac{1 - y^2}{1 - x^2}}$ .

18. If  $y = \sqrt{\cos \cos x + \sqrt{\cos \cos x + \sqrt{\cos \cos x + \dots \infty}}}$ , prove that  $(1 - 2y) dy/dx = \sin x$



### C) Chapter 3-Business Environment

2) Solve the self-evaluation test of chapter 1,2 and 3 given in your book.

3) Study the various components of business environment and write impact of these components on business sector for 15 days

4) Prepare project as per CBSE guidelines for Finals on one of the following topics(as assigned in class as per roll number)

A) Principles of Management

B) Marketing Management

C) Business environment

Instructions for Business studies project

1) You will use thick plain file sheets for the project. (without any design)

2) The project should be handwritten

3) Your project should be of minimum 30 pages

4) The content of project should be strictly in the sequence provided in project work guidelines

5) Sample Questionnaire for data survey should be included

Please check project Guidelines given by Cbse as per latest syllabus

## Economics

Note- Write answers of following questions in notebook:

1 Explain circular flow of income with the help of a diagram.

2. Differentiate between following:

a) Real flow and money flow

d) Stock and flow

b) Depreciation and capital loss

e) GDP MP and NNPfc

c) Intermediate goods and final goods

f) Factor income and transfer income

3. Explain following methods for calculation of national income: Income method, expenditure method, value added method.

4. Write precautions for the calculation of national income by all the methods.

5. Solve 10 numericals each from income method, expenditure method and value added method.

6. Read economics news from the newspaper ECONOMIC TIMES And write one news daily in detail.

7. Make a project on any one topic discussed in class.

## Physical Education

Labelled diagram of 400 metre track and explain 100 metre, 200 metre, 400 metre, 800 metre, and 1500 metre races and show in 400 metre track.

2. Field Events: Shot put, discus throw, javelin throw, long jump, High jump

3. Any one game of your choice out of the list above. Labelled diagram of field and equipment (rules, terminologies and skills) etc.

Football, Basketball, Kabaddi, Volleyball, Cricket, Hockey

4. Pictorial presentation of any five asanas.

## Music

(Music project file work)

1. भारतीय संगीत के ऐसे पांच कलाकारों के नाम लिखिए जिनको अब तक पद्मश्री पुरस्कार मिल चुका है।

2. उनके विषय में संक्षिप्त जानकारी विस्तार से लिखिए।

3. भारतीय संगीत के ऐसे पांच कौन से कलाकार हैं जिनको अब तक पद्म विभूषण पुरस्कार मिल चुका है? उनका संक्षिप्त वर्णन कीजिए।

4. भारतीय संगीत के उन कलाकारों के नाम सचित्र वर्णन सहित लिखिए जिनको अब तक भारत रत्न पुरस्कार से नवाजा गया है।

5. भारतीय संगीत में वाद्य यंत्रों को चार वर्गों में विभाजित किया गया है पहले सुषिर वाद्य, दूसरा घन वाद्य, तीसरा तंत्र वाद्य और चौथा अवनद वाद्य इन चारों वर्गों के वाद्य यंत्रों का सचित्र वर्णन कीजिए ।

Note: प्रत्येक वर्ग के वाद्य यंत्र तीन-तीन होने चाहिए।

6. भारतीय संगीत में खुले खुलों व बंद बोलों के ऐसे कैसे कौन से ताल हैं जिनको आप एकगुन या दुगुन कर सकते हैं? विस्तार से लिखिए ।

7. भारतीय संगीत की निम्नलिखित गायन शैलियों के विषय में आप क्या जानते हैं संक्षिप्त में वर्णन कीजिए और उनके कलाकारों का भी सचित्र वर्णन कीजिए - ठुमरी, धमार, बड़ा खयाल, छोटा खयाल की गायन शैलियां

8. मां सरस्वती का चित्र बनाकर यह वंदना लिखिए है हंस वाहिनी ज्ञान दायिनी अंब विमल मत दे इस वंदना को पूरा कीजिए

9. निम्नलिखित वाद्यों के वादको का वाद्य साहित्य सचित्र वर्णन कीजिए- हारमोनियम, सितार, तबला, बांसुरी, शहनाई, संतूर, सारंगी, सरोद।

10. निम्नलिखित राग व तालों का संक्षिप्त वर्णन कीजिए राग भैरव, राग मालकोश, राग बागेश्री, धमार ताल, रूपक ताल झपताल, एक ताल और चार ताल

## Hindi

निर्देश:- कार्य साफ-सुथरी लिखावट में करें। सभी प्रश्नों के उत्तर स्वयं की भाषा में लिखें।

परियोजना कार्य रंगीन एवं आकर्षक बनाइए।

### भाग - 1: पाठ्य -अभ्यास

आरोह पाठ्य पुस्तक के गद्य खंड पाठ (1-4) पढ़कर प्रत्येक से 5 अतिरिक्त प्रश्नों का निर्माण करें।

आरोह पाठ्य पुस्तक के काव्य खंड पाठ (1-4) पढ़कर प्रत्येक से 5 अतिरिक्त प्रश्नों का निर्माण करें।

3) आज के ऑनलाइन बाज़ार की तुलना पारंपरिक बाज़ार से कीजिए। ( तुलनात्मक चार्ट)

4) अपनी रुचियों एवं लक्ष्य का उल्लेख करते हुए 150 शब्दों में आत्म-परिचय लिखिए।

5) वितान पाठ्य - पुस्तक के पाठ 'सिल्वर वैडिंग ' में से 5 अतिरिक्त प्रश्नों का निर्माण करें और पाठ का आकर्षक व सुंदर प्रवाह चित्र तैयार करें।

### भाग - 2 रचनात्मक लेखन

6. निम्नलिखित विषयों में से किसी 100-120 शब्दों में रचनात्मक लेख लिखिए —

\*प्रकृति और मानव जीवन का संबंध

\*डिजिटल शिक्षा : लाभ और हानि

\*भारतीय संस्कृति और युवा

\*आत्मविश्वास सफलता की कुंजी है

\*विज्ञापनों का युवाओं पर प्रभाव

\* 7. परियोजना कार्य (Project Work)

निम्न में से किसी एक विषय पर परियोजना तैयार करें :

\*सोशल मीडिया का विद्यार्थियों पर प्रभाव, \*रेडियो से पॉडकास्ट तक का सफर

\*भारतीय समाचार पत्रों का इतिहास

\*डिजिटल मीडिया और युवा पीढ़ी

अथवा

किसी हिंदी कवि/लेखक का चित्र एवं परिचय तैयार कीजिए।

परियोजना कार्य हेतु निर्देश:

1. किसी एक प्रसिद्ध हिंदी कवि या लेखक का चयन करें।

उदाहरण: मुंशी प्रेमचंद, महादेवी वर्मा, रामधारी सिंह दिनकर, सूरदास आदि।

2. चुने गए कवि/लेखक का स्पष्ट एवं सुंदर चित्र परियोजना फ़ाइल में चिपकाएँ।
3. परिचय सरल एवं शुद्ध हिंदी भाषा में लगभग 150–200 शब्दों में लिखें।
4. परियोजना कार्य साफ-सुथरी लिखावट और आकर्षक सजावट के साथ प्रस्तुत करें।
6. आवश्यकता अनुसार रंगीन चित्र, बॉर्डर तथा शीर्षक का प्रयोग करें।
7. अंत में अपने विचार लिखें कि आपको उस कवि/लेखक से क्या प्रेरणा मिली।

(परियोजना में शामिल करें, चित्र एवं समाचार कटिंग, हस्तनिर्मित चार्ट, स्वयं द्वारा लिखी कविता/नारा कम से कम 10-12पृष्ठ)

नोट: आवधिक परीक्षा 2 का पाठ्यक्रम याद करें।

### Informatics Practices

**Do all questions in a separate/ assignment notebook.**

**Q1. Answer the following questions briefly:**

- a) Write any two features/advantages of MySQL.
- b) What is a database ? What is a database management system? Give two examples of RDBMS. Write any two advantages of RDBMS.
- c) Write the full form of SQL? Explain the subcategories of SQL statements giving two examples in each category.
- d) Define the following by taking suitable examples wherever necessary :
  1. Primary Key
  2. Candidate Key
  3. Alternate Key
  4. Foreign Key
- e) Differentiate between the following( Give examples to support your answer):
  - CHAR and VARCHAR datatypes
  - NUMERIC and NON NUMERIC datatypes
  - Tuple and Attribute
  - Degree and Cardinality of a relation
  - DELETE and DROP TABLE
- f) When entering multiple –line query in MySQL, what does the MySQL prompt change to ?
- g) After creating the “employee” database, you want to use it. Write the command that you should give.
- h) What is NULL value?
- i) What do % and \_ mean inside a SELECT with LIKE statement ? Explain with the help of examples of each.
- j) What are group/aggregate functions in MySQL? Explain the usage of any two group functions by taking examples of each.
- k) Briefly explain the difference between single row functions and group functions by taking examples of each.
- l) Rama is not able to change a value in a column to NULL. What did she specify when she created the table?

**Q2. Write a SQL statement to create the following table HOSPITAL.**

Table: HOSPITAL

PN o	Name	Age	Department	DateofAdm	Charges	Sex
1	Sandeep	65	Surgery	23/02/98	300	M
2	Ravina	24	Orthopedic	01/01/98	200	F
3	Karan	45	Orthopedic	19/02/98	200	M

4	Tarun	12	Surgery	01/01/98	300	M
5	Zubin	36	ENT	12/01/98	250	M
6	Ketaki	16	ENT	24/02/98	300	F
7	Ankita	29	Cardiology	20/02/98	800	F
8	Zareena	45	Gynecology	22/02/98	300	F
9	Kush	19	Cardiology	13/01/98	800	M
10	Shailya	31	Medicine	19/02/98	400	M

Note: PNo is the primary key in the above table.

**Write SQL commands for the statements (a) to (s) on the basis of the table HOSPITAL.**

- a) To show all the information of the patients of the cardiology department..
- b) To list the names of female patients who are either in the orthopedic or surgery department.
- c) To list the name of all the patients with their date of admission in ascending order.
- d) To display the patient's name, charges, age for male patients only.
- e) To count the number of patients with age > 20.
- f) To display various departments.
- g) To display the number of patients in each department.
- h) To display the number of male & female patients.
- i) To display the details of the patients admitted in first quarter of 1998.
- j) To display the names of the department where the number of patients is less than 2.
- k) To display the details of all the patients whose name starts with the alphabet 'Z'.
- l) To change the age of the patient Kush to 20.
- m) To increase the charges of all the patients by 5%.
- n) To remove the record of the patient whose Name is Tarun.
- o) To add another column WardNumber of the type Number in the above table.
- p) To change the column Charges such that it can allow NULL values.
- q) To set charges to NULL for all the patients in the Surgery department.
- r) To decrease the charges by 10% of all the patients admitted in the Cardiology department.
- s) To remove the primary key constraint in the above table.
- t) To insert a new row in the HOSPITAL table with the following data:  
11,'Mustafa',37,'ENT','1998-02-25',250,'M'.

**Give the output of the following SQL statements based on the above table HOSPITAL:**

- (i) Select COUNT(DISTINCT Charges) FROM Hospital;
- (ii) Select MIN(Age) From Hospital WHERE Sex='M';
- (iii) Select AVG(Charges) FROM Hospital where DateofAdm < '1998-02-12';
- (iv) Select SUM(Charges) FROM Hospital where Sex ='F';
- (v) Select Left(Name ,4) FROM Hospital where Charges = 200;
- (vi) Select RIGHT(Name,3) FROM Hospital where Deaprtment='ENT';
- (vii) Select Length(Department) FROM Hospital where Department IN ('ENT','Orthopedic');
- (viii) Select CONCAT(Name,Age) FROM Hospital where Sex='F' and Age <18;
- (ix) Select LCASE(Department) FROM Hospital where Department Like '%y';
- (x) SELECT SUBSTR(Deaprtment,2,3) FROM Hospital where Charges between 500 and 1000;
- (xi) SELECT MONTH(DateofAdm) , DAY(DateofAdm) From Hospital where cost between 500 and 1000;
- (xii) SELECT NOW( ), DAYNAME( CURDATE( ) );
- (xiii) SELECT DAYOFYEAR(NOW());
- (xiv) SELECT ROUND(2345.67,2) , ROUND(2345.67,1) , ROUND(2345.67,0) ;
- (xv) SELECT POWER(25,-1), MOD( 56,7) ;

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