S.B.P. D.A.V. Centenary Public School, Fatehabad.

Website: www.davfatehabad.in E. Mail: sbpdavftb@yahoo.co.in, Ph. 01667-222664

Assignments for Summer Vacations (2025-26) for Class XI COMMERCE

General Instructions:

1. *Get up early in the morning and go out for a walk daily. Do yoga daily for healthy living.*
2. *Make a Bird feeder and add seeds for birds daily and also place water for them.*
3. *Raise a small kitchen garden by planting seeds.*
4. *Learn any one folk song.*
5. *Help your mother in cooking and learn vegetable cooking and salad decoration.*
6. *The summer break for classes VI-XII will be from 01.06.2025 to 01.07.2025 (Both days inclusive). School will reopen on 02.07.2025.*
7. *Revise the syllabus of all subjects done before summer vacations for Unit Tests to be started from 07.07.2025.*
8. *Try to make your handwriting better by practicing and do your HW in good handwriting.*
9. *Do assignments in holidays homework notebook and activities/projects on A4 sheets for each subject & submit it for assessment to your class teacher on July 10, 2025.*
10. *Learn all the prayers and mantras given in student diary.*
11. ***Register & participate in 1st stage of 11th Online International Humanity Olympiad, International Open Oratory Contest and International Open Poetry Recitation Contest by accessing through web portal https://www.dhyankaksh.org/value-your-virtues . Every individual passing the exam (i.e. scoring minimum 40%) will get an e-certificate through e-mail immediately on their e-mails. School code is : FATE104. This certificate and certificates of courses earned by you during holidays should be part of your portfolio.***
12. ***Waste Warriors: Smart Sorting & Creative Recycling.*** *Survey at least 10 families in your surroundings and collect data how they Dispose off two types of waste and create awareness in them to segregate waste. Click pictures and paste in your portfolio.*

English

Revise the following syllabus for Unit Test-

Reading Section-Unseen passages for comprehension

Grammar:Tenses,Prepositions

Writing Section- Advertisements

Hornbill :

1-The Portrait Of A Lady

2.We're Not Afraid to Die if We Can All be Together

A Photograph(Poem)

Snapshot:

1.The Summer of The Beautiful White Horse

2.The Address

Solve the following worksheets in BBC Compacta in neat and clean handwriting (Use pencil only)

1.Worksheet 1to 5(Reading Comprehensions)

2.Do worksheets of Tenses,Preposition

3. Advertisement Writing- Any five according to prescribed syllabus(Unsolved)

4. Solve extracts of all the lessons and poems included in Unit Test (as mentioned above)

1. Read the lesson 'The Portrait of a Lady 'by Khushwant Singh. Relating to the topic, share your thoughts on how each family member contributes to a happy family. Discuss the roles of the father, mother, and children in maintaining family harmony.

2.After reading the story (We're not Afraid to Die if we can all……..)Develop a storyboard illustrating the key events of the story, such as the onset of the storm, the family's efforts to save the boat, and their eventual rescue.This visual representation will help in understanding the sequence of events and the challenges faced.

3.Create a podcast max 3 minutes/documentary/standup comedy/a short commercial (audio or visual) addressing any social issue/stereotype/superstition.

4.Watch Ted talks related to the Elderly,People with disabilities and Environment and express your opinion on the same in about 100 words each.

Project work- As assigned in the class.

Applied Mathematics

- **Prepare yourself for Unit Test**
  Unit-1 Numbers , Quantification and Numerical Applications (Binary Number, Indices, Numerical Applications)
  Unit-2 Algebra (Sets & Relation, Permutation & Combinations, Sequence & Series)
- **Make mind map of each topic given below : Sets & Relation , Sequence & Series ,Permutation & Combination, Quantification & Numerical Applications.**
- **Project Work: Do any one of the following projects**

(i) Fibbonacci Sequence (Objective, Introduction, history, Presence in nature, Real life Applications, Importance ,Fun facts , Conclusion)

(ii) Investigating Graphs of Functions for their Properties.(Objective, Introduction, Domain, Range , graphs and real life applications of different kind of functions)

(iii) Use of Venn Diagrams in solving Practical Problems (Objective , Introduction, Atleast five Real Life Applications Different from your book, Conclusion)

Points to Remember while making Project: -

- The project should consist of 15- 20 pages with proper and relevant information.
- Be as creative and innovative as you can in doing your project.
- The project should be handwritten.
- The work has to be done on A4 size sheets.
- Paste the relevant pictures and draw the graph to make the project attractive.
- The project should be maintained in a neat File.

Business Studies

1. Learn Unit 1 & 2 for **Unit Test.**
2. **Activities**: -

(a) "Cherry shoe polish originally started with a wax tin, then they came up with an idea of liquid shoe polish, and then a shoe shiner with sponge and finally a shoe shiner with a brush. List 5 such similar examples which have marked their place for innovation.

(b) Amul Butter, utterly butterly delicious....", is one of the leading brands of butter since years. Many companies made butters like Britannia, Mother Dairy, Parag in UP, Saras in Rajasthan, Aarey in Maharashtra, Vadilal etc. but they could not compete with Amul Butter, which is a leading brand. Survey and list the reasons for the success of Amul and failure of others.

(c) Make mind map of each topic given below:

- Classification of Business Activities
- Partnership organisation
- Company Organisation
- Formation of company

Eonomics

(A) **Learn Chapter 1 to 9(Statistics) for Unit Test.**

(B) Solve Numericals of Ch-9 (Measures of Central Tendency- Arithmetic Mean) solved and unsolved in your notebook.

(C) Prepare "Economics Project" for final Exam

(Questionnaire is already sent in the group)

- Consumer Awareness Survey
- Complete all the 5 stages of Statistical Study:
- Collection of Data (Questionnaires)
- Organisation of Data (Tabular Presentation)
- Presentation of Data (Histogram and Pie Chart)
- Analysis of Data (Percentage Table)
- Interpretation of Data (Result of the survey)

➢ The following essentials are required to be fulfilled for its preparation and submission.

1. 20 Questionnaires
2. The project should be handwritten.
3. The work has to be done on A4 size sheets.
4. Use graphs and colored sheets for Diagrammatic Presentation of data to make the project attractive.
5. The project should be presented in a folder/File (The file should not be Spiraled).
6. The cover page should include the Title of the Project, Student Information.
7. List of contents.
8. Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).
9. Introduction of project.
10. Result of the survey

Accountancy

- Revise the syllabus for Unit Test.

(Syllabus for unit test : Meaning and Objective of Accounting , Basic Accounting Terms , Accounting Equations , Accounting Principles , Process and Basis of accounting , Journal)

- Solve all the additional unsolved questions of the following chapters in your accountancy notebook:

➢ Accounting Equations

➢ Books of original entry –Journal

- You are employed by Sunshine Ltd. as their Accounts Assistant. Your main task is to prepare vouchers and to maintain books of accounts. Your company sold goods on credit and cash also, purchased goods on credit and cash also. You are required to Prepare a **'project report'** on the meaning of various source documents and prepare the format of various source documents based on given information and pass the entry in the journal.

XI –Elective Maths

Sets

1. Let U={1,2,3,4,5,6,7,8,9,10}, A={1,2,3,4,5}, B={2,4,6,8,9,10} and C={4,7,9,10}. Then

[i] The value of $A' \cap (B - C)$ is

[a] {5,6,7,8,9} [b] {7,9,10} [c] {7,8,9,10} [d] {4,6,7,8,9}

[ii]The value of $(B - C)'$

[a] {2,3,4,5,6,9,10} [b] {2,3,4,5,6,7,9} [c] {1,3,4,5,7,9,10} [d] {2,3,4,5,7,9,10}

2. Let A= {4,5,8,12}, B={1,4,6,9}, C={1,2,3,4}, then A-(B-C) is

[a] {1,4,8,12} [b] {4,5,8,12} [c] {2,4,5,12} [d] {3,4,5,12}

3. If A={ x : x∈N, x≤6} and B= {x : x∈N, $2<x^2<26$}, then A ∩ B is equal to :

[a] {3,4,5,6} [b]{3,4,5} [c] {2,3,4,5} [d] {4,5,6,7,}

4. The set builder form of A = {2,7,12,17,22}

[a] A={ 5n-3, n∈N, n≤5} [b] A={ 27-5n, n∈N, n<5}

[c] A={ 5n-3, n∈N, n<5} [d] A={ 27-5n, n∈N, n≥5}

5. The set builder form of A = {-12, -7,-2,3,8,13}

[a] A={ 5n-17, n∈N, n≤6} [b] A={ 17-5n, n∈N, n<6}

[c] A={ 18-5n, n∈N, n<6} [d] A={ 18-5n, n∈N, n≥6}

6. In a class of 50 students, 30 students like Maths, 25 like Bio and 16 like both Maths and Bio. Find the number of students who like neither Maths nor Bio.

[a] 12 [b] 10 [c]11 [d] 13

7. Let A={2,3,4,5,7,8}, B={4,5,6,7,8) and C={1,3,5,6,7,8,9}, then{ (A∩C)∪B} equals to

[a] {3,4,5,6,7,8,9} [b] {3,4,5,6,7,8} [c] {2,3,4,5,6,7} [d] {3,4,6,7,8,9}

8. Let U={1,2,3,4,5,6,7,8}, A={1,2,3,5,6}, B={2,3,4,7,8} then the value of (A'UB) is equal to

[a] {1,2,3,4,5} [b] {2,3,4,7,8} [c] { 1,2,4,7,8} [d] {2,3,5,6,8}

9. If A={2,3,4,5,6}, then the number of proper subsets of A is :

[a] 120 [b] 30 [c] 31 [d] 32

10. In a school, there are 20 teachers who teach Mathematics or Physics. Of these 12 teachers teach Mathematics and 4 teach Mathematics and Physics. How many teach Physics?

[a] 10 [b] 11 [c] 8 [d] 12

[a] A is false and R is true.

[b] A is true and R is false.

[c] Both A and R are true and R is the correct explanation of A.

[d] Both A and R are true but R is not the correct explanation of A.

9. Assertion : the number of non-empty subsets of the set {a,b,c,d,e,f} is 63.

Reason : The number of proper subsets of the set A when $n(A)=2^k-1$.

10. Assertion : The collection of ten most talented writers of India form a set.

Reason : A set is a collection of well defined of distinct objects.

Relations & Functions

1.If (4x -7, 2y+5) =(9, 15) then the value of (2x+y) is

[a] 10 [b]8 [c] 13 [d] 11

2. Find the domain of : $f(x) = 3x/ (x^2-4x-12)$

[a] {-2,6} [b] R- {-2,6} [c] R- (-2,6} [d] R- {-2,6)

3. If $f(x) = 3x^2-7x-8$, then the value of f(4) is

[a] 47 [b] 46 [c] 5 [d] 12

4. The value of a and b if (3a,4) and (2b,-1) belong to the set {(x,y) : x-5y=13}

[a] a=11, b=4 [b] a=5 b=11 [c] a=11,b=5 [d] a=4, b=11

5. Let A={2,3,8}, B={2,3,5}, C={2,5,8,9} then (A-B)X(B-C) is

[a] {(1,2),(1,5),(2,5)} [b]{(1,4)} [c] {(4,5)} [d] {8,3}

6. Find the range of : y= (2x+3)/ (3x+4)

[a] R- {-3/2} [b] R- {2/3} [c] R- {-2/3} [d] R- {3/2}

7. Find the domain of : $f(x) = (x^2-x-3/ (2x^2+11x+9)$

[a] {1,9/2} [b] R- { -9/2} [c] R- {-1,-9/2} [d] R- {-9/2,1)

8. Let A={1,2,3,4,5,6,7,8,9,10}. Define a relation R from A to A by R={(x,y) : y=2x+1}. The range of R is

[a] {1,2,3,4,5,6,7,8,9} [b] {1,2,3,4,5}

[c] {3,4,5,6,7,8} [d] {3,5,7,9,11}

9. Let A=$\{x: x \in W, x < 2\}$, B= $\{x: x \in N, 1 < x < 5\}$ and C={3,5}, then $[A \times (B \cap C)]$

[a] {(0,3),(1,3)} [b] {(0,3),(1,3),(3,3) [c] {(1,3), (3,3)} [d] {(0,3), (3,3)}

10. Let A={2,4,6,9}, B={4,6,18,27,54} and a relation R from A to B is defined by R={(a,b): $a \in A, b \in B$, a is the factor of B and a less than b}. Then domain of R is

[a] {2,4,6} [b] {2,6,9} [c] {4,6,9} [d] {2,4,6,9}

[a] A is false and R is true.

[b] A is true and R is false.

[c] Both A and R are true and R is the correct explanation of A.

[d] Both A and R are true but R is not the correct explanation of A.

1. Assertion : If (2x+1, x+5y-2) = (9, 18), then x=5 and y =3.

Reason : Two ordered pairs are equal if their corresponding elements are equal.

2. Assertion : A relation R = {(1,3),(2,2),(3,1)} defined on the set A={1,2,3} is a function.

Reason : A relation from set A to set B is a function if every element of A is related to a unique element of B.

Complex Numbers

1. If x=3+2i and y=3-2i, find the value of $5(x^2+y^2)+7(x+y)+8xy$.

[a] 196 [b] 225 [c] 265 [d] 256

2. If (5x -8) - (7y+2)i = 17 - 44i, then the value of x + y :

[a] 11 [b] 4 [c] -4 [d] 8

3. The value of $(4i^6 +14i^{11} +14i^{12} +16i^{17})$

[a]10 + 6i [b] 10 - 6i [c] 10 +2i [d] 10 – 2i

4. The value of (2+8i) / (1+i)

[a](3+4i) [b] (5+3i) [c] (5-6i) [d] (3-2i)

5. The number $\frac{(1+i)^8}{1-i^5}$ is equal to :

[a]i [b] –i [c] -1 [d]-2

6. If x –iy=$\frac{(1+3i)^2}{2+i}$, then the value (x + y)are :

[a] 2 [b] -2 [c] 6 [d] -6

7. If x +iy= $\frac{(2+i)(1-3i)}{(1+2i)(3+i)}$, then the value of x and y :

[a] x=3/5, y=4/5 [b] y=-3/5, x=-4/5 [c] x=-3/5, y=-4/5 [d] y=3/5, x=4/5

8. If (4x +1)+ (6y-8)i = $(-7-2i)^2$ then the value of x and y :

[a] x =11, y=- 6 [b] x=11, y = 6 [c] x=-11, y=6 [d] x=-11, y =-6

[a] A is false and R is true.

[b] A is true and R is false.

[c] Both A and R are true and R is the correct explanation of A.

[d] Both A and R are true but R is not the correct explanation of A.

9. Assertion : If 4x +i(3x+4y) = 15 +11i, then x=15/4 and y = 1/16.

Reason : Two complex numbers are equal if their corresponding real and imaginary parts are equal.

10. Assertion : If $Z = \frac{1}{5+12i}$,then $|Z| = \frac{1}{17}$

Reason **:** If Z=a+ib then $|Z| = \sqrt{a^2 + b^2}$

Trigonometry

1. The value of tan(25π/3)

[a] $\sqrt{3}$ [b]- $\sqrt{3}$ [c] $1/\sqrt{3}$ [d] -1/ $\sqrt{3}$

2. The value of sin120° + cos210°

[a] 1 **[b] 0** [c] 2 [d] -2

3. If cosA=4/5, $0 < A < \frac{\pi}{2}$, and sinB= -5/13, $\pi < A < \frac{3\pi}{2}$, then the value of cos(A-B)

[a] 33/65 [b] -33/65 [c] -63/65 [d] 63/65

4. If x= secA-tanA and y= cosecA + cotA, then the value of x –y +1 +xy is

[a] 2 [b] 0 [c] 1 [d] -1

5. If cos (a+b) = 4/5, and sin(a-b)=5/13, then the value of tan(2a) is

[a] 24/25 [b] 33/56 [c] 56/33 [d] 25/24

6. If sinA=1/2, then the value of sin3A is :

[a] ½ [b] 1/3 [c] 0 [d] 1

7. The value of cos68° + cos52°-cos8° is :

[a] 2 [b] 3 [c] 0 [d] 1

8. If cos(A-B) = 3 cos(A+B), then cotA.CotB is equal to

[a] 1 [b] 2 [c] 3 [d] -2

9. If cosA=-20/29, A lies in second quadrant, then the value of (1+cosecA)

[a] 49/20 [b] -5/2 [c] 50/21 [d] -50/21

10. If sinA=-5/13, A lies in 4th quadrant, then the value of (secA- tanA)

[a] 18/5 [b] 17/5 [c] 3/2 [d] -3/2

11. If A lies in II quadrant and 3tanA+4=0, then the value of (2cotA-5cosA+sinA) is

[a] -53//10 [b] -7/10 [c] 7/10 [d] 23/10

12. If x $\sin135°\cos^2120° = \frac{\tan^2 120^\circ \operatorname{cosec} 150^\circ}{\cot^2 30^\circ \sec^2 135^\circ}$, then x is :

[a] 2 [b] 4 [c] 8 [d] 16

13. Evaluate : cosA +sin(270°+A) –sin(270°-A) + cos(180°+A)

[a] -1 [b] 0 [c] 1 [d] none of these

14. tanA $\sin\left(\frac{\pi}{2}+A\right)\cos\left(\frac{\pi}{2}-A\right)$ is equal to

[a] 1 [b] 0 [c] $\frac{1}{\sqrt{2}}$ [d] none of these

15. The value of $\frac{\cos(\pi+x)\cos(-x)}{\sin(\pi-x)\cos\left(\frac{\pi}{2}+x\right)}$ is equal to :

[a] 1-$\cot^2$A [b] $\cot^2$A-1 [c] 1-cosec^2A [d] cosec^2A-1

16. The value of cos(1770°)

[a] cos45° [b] -cos45° [c] cos60° [d] cos30°

17. The value of cos(1680°) + sin(1290°)

[a] 2 [b] -1 [c] 0 [d] 1

18. The value of $3\cos^2\frac{\pi}{4}+\sec\frac{2\pi}{3}+5\tan^2\frac{\pi}{3}$ is

[a] 29/3 [b] 29/4 [c] 29/2 [d] 29/5

19. The value of $\left(3\cos\frac{\pi}{3}\operatorname{cosec}\frac{\pi}{6}-4\sin\frac{5\pi}{6}\tan\frac{\pi}{4}\right)\cos2\pi$

[a] 0 [b] -1 [c] 1 [d] ½

20. Value of A $(0< A < 360°)$ satisfying cosecA+2=0

[a] 210°, 300° [b] 240°, 300° [c] 210°, 240° [d] 210°, 330°

ASSERTION AND REASONING

[a] A is false and R is true.

[b] A is true and R is false.

[c] Both A and R are true and R is the correct explanation of A.

[d] Both A and R are true but R is not the correct explanation of A.

1. Assertion : Tan8A- tan6A +tan2A = Tan8ATan6ATan2A

Reason : $\tan(A+B)=\frac{\tan A-\tan B}{1-\tan A\tan B}$

2. Assertion : If two equal arcs of different circles subtend angles of 36° and 45° at the centre respectively, then the ratio of their radii is 5 : 4.

Reason : In a circle of radius r, an arc of length m subtends an angle of m/r radians at the centre.

3. Assertion : If cotA=$\frac{7}{24}$, $\pi < x \frac{3\pi}{2}$, then the value of sinA+cosA is $\frac{-31}{25}$.

Reason : In third quadrant the value of tanA and cotA is +ve and other ratio is –ve.

4. Assertion : The value of tan75°= $\frac{\sqrt{6}+\sqrt{2}}{4}$

Reason : $\tan(A+B) = \frac{\tan A - \tan B}{1+\tan A \tan B}$.

Case Study

1. In a survey of 25 students, it was found that 21 had taken Mathematics, 26 had taken Physics and 29 had taken Chemistry, 14 had taken Mathematics and Physics, 12 had taken Mathematics and Chemistry, 14 had taken Physics and Chemistry and 8 had taken all the three subjects. Based on the above information, answer the following questions.

[i] The number of students who had taken only Mathematics is

[a] 8 [b] 3 [c] 4 [d] 5

[ii] The number of students who had taken at least one of the three subjects is

[a] 45 [b] 48 [c] 44 [d] 50

[iii] The number of students who had taken only one of the subjects is

[a] 20 [b] 19 [c] 15 [d] 25

[iv] The number of students who had taken Mathematics and Physics but not Chemistry is

[a] 8 [b] 9 [c] 6 [d] 11

[v] The number of students who had taken Chemistry and Physics but not Mathematics is

[a] 4 [b] 3 [c] 8 [d] 6

2. The mathematics teacher was teaching the students of class XI the following concepts of trigonometric equations. An equation involving trigonometric functions of an unknown angle or angles is called a trigonometric equation. The solution in the interval $[0,2\pi]$ is called the principal solution of the given equation.

Based on the above information, answer the following questions.

[i] If tanx= $\frac{-1}{2}$ and cosecx = $\frac{3}{2}$ then in which quadrant they lie.

[a] I [b] II [c] III [d] IV

[ii] The value of $2\sin^2 x$ is equal to :

[a] (1-cosx) [b] (1+cosx) [c] (1+cos2x) [d] (1-cos2x)

[iii] If cotx = $-1/\sqrt{3}$ and x lies in 2nd quadrant the value of (1+secx)

[a] 1 [b] 3 [c] -1 [d] 0

[iv] The degree measures of $\left(\frac{8\pi}{9}\right)^c$ is :

[a] 320° [b] 340° [c] 280° [d] 160°

[v] The value of cot75°

[a] $3+\sqrt{2}$ [b] $2+\sqrt{3}$ [c] $2-\sqrt{3}$ [d] $3-\sqrt{2}$

Activities

1. Draw the graph of the function f(x) = $\begin{cases} 3-x, & \text{if } x>1 \\ 1, & \text{if } x=1 \\ 2x, & \text{if } x<1 \end{cases}$

2. Represent the given complex number on Arganda plane : $\frac{2+i}{(1+i)(1-2i)}$

3. Draw the graph of cosx such that the value of x lies between -180° to 180°

Syllabus of UT (July)

1. **Sets**
2. **Relations & Functions**
3. **Trigonometric Functions**
4. **Complex Number**

PHYSICAL EDUCATION

1.Make a project file on yoga and modern olympics

2.Revise chapters 1,2,3 for UNIT TEST

MUSIC

Revise syllabus for Unit Test:- Unit-1, 2 and 4

Q 1. Play and sing the notation of Gayatri Mantra with different scale or note.

Q 2. Make a video of any classical or semi classical song, and send video through whatsapp on 9416726190.

Q 3. Make a composition of Raga Bhairavi with following words-

प्रभुवर हमारे मन को , भक्ति का दान देना,
सबके मैं काम आऊँ, बुद्धि का दान देना |
जीवन में मेरे दाता, तेरा ही नाम गाऊं,
तुम्हें छोड़ कर मैं दाता, कहीं और कैसे जाऊं |
सुख में तुझे न भूलूं , शक्ति का दान देना |