

SGJ DAV SEN. SEC. PUBLIC SCHOOL, HARIPURA

Class – 12th (Sci & Com)

Date – 06.01.2025

Instructions: Dear children, The work which is being sent to you, it must be done in a fair notebook and in beautiful handwriting. When the school will reopen this home work will be checked. This work is given for revision purpose.

ENGLISH

Spurt of violence previously unknown in Indian schools makes it incumbent on the educationist to introduce value education effectively in schools. Write an article in 150 -200 words expressing your views on the need of value educations. You are Anu/ Arun.

PUNJABI

ਗੋਇਲ ਕਰਿਆਨਾ ਸਟੋਰ ਗੁਰਦਾਸਪੁਰ ਨੇ ਮੈਸਰਜ਼ ਆਰਗੈਨਿਕ ਫੂਡ ਲਿਮਿਟਿਡ ਹੁਸ਼ਿਆਰਪੁਰ ਤੋਂ ਕੁਝ ਕਰਿਆਨੇ ਦਾ ਸਮਾਨ ਮੰਗਵਾਇਆ ਸੀ, ਜਿਹੜਾ ਕਿ ਠੀਕ ਠਾਕ ਪਹੁੰਚ ਗਿਆ ਹੈ। ਪੱਤਰ ਲਿਖ ਕੇ ਉਕਤ ਫਰਮ ਦਾ ਧੰਨਵਾਦ ਕਰਨ ਦੇ ਨਾਲ ਨਾਲ ਬਣਦਾ ਭੁਗਤਾਨ ਕਰੋ।

MATHS

1.If the points $(x, -2)$, $(5, 2)$, $(8, 8)$ are collinear, find x using determinants.

2.Solve the equations using matrix method:

$$3x-2y+3z=8 ; 2x+y-z=1 ; 4x-3y+2z=4.$$

3.Three Shopkeepers A,B and C go to a store to buy stationary. A purchase 12 dozen note-books,5 dozen pens and 6 dozen pencils purchase 10 dozen note-books,6 dozen pens and 7 dozen pencils.C purchase 11 dozen notebooks,13 dozen pens and 8 dozen pencils.A notebook costs 40 paise ,a pen costs ₹1.25 and a pencil costs 35 paise.Use matrix multiplication to calculate each individual's bill.

4.Find all points of discontinuity of f , where f is defined by

$$F(x) = \begin{cases} x+1, & \text{if } x > 1 \\ x+1, & \text{if } x = 1 \\ x^2+1, & \text{if } x < 1 \end{cases}$$

5.Solve the following LPP graphically:

Minimize $Z = 5x + 10y$ subject to the constraints

$$x + 2y \leq 120 ; x + y \geq 60 ; x - 2y \geq 0 \text{ and } x, y \geq 0.$$

PHYSICS

Students have to solve following questions on their note books and submit it to teacher when required.

1.(a) Draw a labelled diagram of a moving coil galvanometer. Prove that in a radial magnetic field, the deflection of the coil is directly proportional to the current flowing in the coil.

(b) A galvanometer can be converted into a voltmeter to measure upto

(i) V volt by connecting a resistance series with the coil

(ii) $v/2$ volt by connecting a resistance R_2 in series with coil Find R in terms of R_1 and R_2 required to convert – it into a voltmeter that can read upto ' $2v$ ' volt.

2. In a chamber, a uniform magnetic field of 6.5 G is maintained. An electron is shot into the field with a speed of normal to the field. Explain why the path of the electron is a circle.

Determine the radius of the circular orbit. ($e =$, $m_e =$)

3. Two concentric circular coils X and Y of radii 16 cm and 10 cm, respectively, lie in the same vertical plane containing the north to south direction. Coil X has 20 turns and carries a current of 16 A; coil Y has 25 turns and carries a current of 18 A. The sense of the current in X is anticlockwise, and clockwise in Y, for an observer looking at the coils facing west. Give the magnitude and direction of the net magnetic field due to the coils at their centre.

CHEMISTRY

Q1. How do you explain the presence of all the six carbon atoms in glucose in a straight chain?

Q2 How will you distinguish 1° and 2° hydroxyl groups present in glucose? Explain with reactions.

Q3. Coagulation of egg white on boiling is an example of the denaturation of protein. Explain it in terms of structural changes.

Q4. Differences between Alpha-Helix and Beta-Sheet

Q5. Enumerate the reactions of D-Glucose, which its open-chain structure cannot explain.

BIOLOGY

1. A cross between a red flower bearing plant and a white flower bearing plant of *Antirrhinum* produced all plants having pink flowers. Work out a cross to explain how this is possible.

2. Work out a cross to find the genotype of a tall pea plant. Name the type of cross.

3. What is a test cross? How can it decipher the heterozygosity of a plant?

4. (i) Write the conclusion Mendel arrived at on dominance of traits on the basis of monohybrid crosses that he carried out in pea plants.

(ii) Explain why a recessive allele is unable to express itself in a heterozygous state.

5. In pea plants, the colour of the flower is either violet or white, whereas human skin colour shows many gradation. Explain giving reasons how it is possible.

6. Compare in any three ways the chromosomal theory of inheritance as proposed by Sutton and Boveri with that of experimental results on pea plant presented by Mendel.

7. In a dihybrid cross, white-eyed, yellow-bodied female *Drosophila* crossed with red-eyed, brown-bodied male *Drosophila* produced in F₂-generation 1.3% recombinants and 98.7% progeny with parental type combinations. This observation of Morgan deviated from Mendelian F₂-phenotypic dihybrid ratio. Explain, giving reasons Morgan's observation

FMM

Q.1 Write the advantages of SBTS.

Q.2 Explain the all market phases.

BUSINESS STUDIES

Q.1 How does the production cycle impact working capital?

Q.2 While performing the financial function every manager takes three decisions. Explain those decisions.

Q.3 State the four factors which affect the working capital requirements of a company.

Q.4 The board of directors asked you to design the capital structure of a company. What are the factors you would consider to add?

ECONOMICS

Q1. Define Direct taxes and Indirect taxes. Also give two examples of each.

Q2. How is tax revenue different from administrative revenue?

Q3. What is a balanced government budget? Explain the multiplier effect of a balanced budget.

Q4. Explain the four different concepts of Budget deficit.

Q5. What are the main items of Capital Receipt?

Q6. Give two examples of Developmental Expenditure and non-development Expenditure each.

Q7. Explain the objectives of resource allocation and income distribution in a government budget.

ACCOUNTANCY

● Empire Ltd. invited applications for 2,00,000 shares @ Rs 10 each payable on Application Rs 3, On Allotment Rs 5 and Balance on Call. Applications were received for 3,50,000 shares.

Allotment was made as under

Applicants of 50,000 shares - Allotted in full

Applicants of 2,80,000 shares - Allotted 1,50,000 shares

Remaining applications were rejected. All the money has been duly received except call money on 6,000 shares held by Raavan and on 4,000 shares held by Kumbhkaran. Prepare Cash Book and pass entries.

● Empire Ltd. invited applications for 2,00,000 shares @ Rs 10 each payable on Application Rs 3, On Allotment Rs 5 and Balance on Call.

Applications were received for 4,80,000 shares. Allotment was made as under

Applicants of 50,000 shares - Allotted in full

Applicants of 4,20,000 shares - Allotted 1,50,000 shares

Remaining applications were rejected. Excess money on Application was to be utilised towards allotment and subsequent calls. All the money has been duly received except call money on 6,000 shares held by Raavan and on 4,000 shares held by Kumbhkaran. Pass entries.

● Empire Ltd. invited applications for 2,00,000 shares @ Rs 10 each and Rs. 1 premium payable on Application Rs 6 (including premium), On Allotment Rs 3 and Balance on Call. Applications were received for 3,20,000 shares.

Allotment was made as under

Applicants of 50,000 shares - Allotted in full

Applicants of 2,40,000 shares - Allotted 1,50,000 shares

Remaining applications were rejected. All the money has been duly received except call money on 6,000 shares held by Raavan and on 4,000 shares held by Kumbhkaran. Pass entries.

● Empire Ltd. invited applications for 2,00,000 shares @ Rs 10 each and Re. 1 premium payable on Application Rs 6 (including premium), On Allotment Rs 3 and Balance on Call. Applications were received for 3,20,000 shares.

Allotment was made as under

Applicants of 50,000 shares - Allotted in full

Applicants of 2,40,000 shares - Allotted 1,50,000 shares

Remaining applications were rejected. Excess money on Application was to be utilised towards allotment and subsequent calls. All the money has been duly received except call money on 6,000 shares held by Raavan (from Category II) and on 4,000 shares held by Kumbhkaran (from Category I). Pass entries.

IT

Answer the given questions in 20-30 words each

Q1. Explain Work integrated learning with respect to education sector.

Q2. A company is making database of Employees having personal details and Salary details. Personal details have columns Empid, Name, Address, BloodGroup. Suggest Columns for Salary Table.

Answer the given question in 30-50 words each

Q3. (i) Mention at least 2 work areas which uses Database Management Systems.

(ii) Jatin has given the following query from the table Student but he is unable to execute it successfully.

Write the correct query after rectifying the error Select Name, Marks From student Table
Where Name
="P%"

Answer the given question in 50-80 words each

Q4:

- (i) Write a program in Java to display Area of a square.
- (ii) What are comment entries in Java? Mention two ways to give comments.

COMMERCIAL ARTS

Answer the following questions in 100 words

Q1). Write any TWO qualities or characteristics of the painting 'Chaugan Players' from Rajasthani school that you admire.? Give the answer with special mention to the sub school and the artist.

Q-2)The paintings made during Jahangir period depict his love towards nature and flora fauna which is clearly represented in the painting 'Falcon on a Bird Rest'. Appreciate this painting on the basis of aesthetic parameters with context of the importance of bird rest in your own words

PHYSICAL EDUCATION

Topic -Training in sports

Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle.

Types and Methods to Develop – Strength, Endurance and Speed.

Types and Methods to Develop – Flexibility and Coordinative Ability.