

SGJ DAV SEN. SEC. PUBLIC SCHOOL, HARIPURA

Class – 12th (All Subjects Assignment)

Date – 27.08.2025

History-

Instructions: Write these questions on your notebook.

Answer the following questions in 150-180 words.

You have to submit this work after the opening of school to your subject teacher.

1. "Archaeologists face too many problems to reconstruct the past." Explain the statement with the help of eight points. 8 marks
2. "The Mauryan administration was at its peak." Elaborate this statement in your views in eight points. 8 marks
3. "The Mahabharata is a good source to study the social value of ancient times." Describe the statement in your views in eight points. 8 marks

Political Science-

Instructions - Please write this work on notebook and bring all completed homework on the reopening day.

There will a class test of all these questions once the school opens. All questions are worth of 6 marks each.

- Q1. Explain any four contentious issues between China and India. Suggest any two measures to resolve the issues for greater corporations.
- Q2. ASEAN took steps to establish an ASEAN community on the basis of its three pillars." Explain the importance of these three pillars.
- Q3. "The foreign policy of independent india has pursued the dream of a peaceful world ."Support the statement with three suitable arguments.
- Q4. Explain any three differences between the non traditional and traditional notion of security.

Geography-

All students are required to write down the following questions in their Geography notebooks and learn them. There will a class test of all these questions once the school opens. All questions are worth of 5 marks each.

- 1 Human Geography is described as the study of "nature–human inter-relationships." Examine this statement with suitable examples.
- 2 " The Indian farmers are facing multiple issues since independence but with the time the nature of their problems has been changing." Justify the statement with 5 suitable points.
- 3 Prepare a crop chart of the following crops giving details of their areas of production in India as well as in World. Also specify the climatic conditions required for them.
(a) Rice (b) Tea (c) Coffee (d) Jute (e) Cotton
- 4 Make a flow chart/mind map showing the types of agriculture and their features. The major types to be covered are – Subsistence Agriculture, Commercial Agriculture, Extensive and Intensive Agriculture, Plantation Agriculture.

Economics-

Instructions:

Answer all the questions neatly in your Economics Notebook.

1. Define devaluation of currency.
2. Under which situation Domestic Income is equal to National Income in case of a closed economy.
3. What will be the result if economic subsidies are added to and indirect taxes are subtracted from the National Income at market prices?
4. Out of the following who are residents of India?
 - a. Indians going to abroad for medical treatment
 - b. Indians working permanently in the UNESCO office in New York

- c. Indians working in a branch of an American Bank in India
- c. Indians working in Indian Embassy in Japan
5. Discuss the component of measuring National Income by Income Method
6. Calculate NDP at MP from the following information:

Particulars	₹ in crores
Depreciation	4,950
Subsidies	1,770
Indirect Taxes	10,600
GNP at FC	75,920
Factor income to abroad	700
Factor income from abroad	500

Maths-

- Do all the work in Fair Notebook day wise in neat and clean handwriting.

1. If $y = e^{a \cos^{-1} x}$, then show that $(1 - x^2) \frac{d^2 y}{dx^2} - x \frac{dy}{dx} - a^2 y = 0$.
2. Find $\frac{dy}{dx}$, if $y = x^{\cos x} - 2^{\sin x}$.
3. If $y^x = x^y$, then find $\frac{dy}{dx}$.
4. If $y = (\sin^{-1} x)^2$, then find $(1 - x^2) \frac{d^2 y}{dx^2} - x \frac{dy}{dx}$.
5. If $y = \cos^{-1} \left(\frac{1-x^2}{1+x^2} \right)$, $0 < x < 1$, then find $\frac{dy}{dx}$.
6. If $x^y = e^{x-y}$, Prove that $\frac{dy}{dx} = \frac{\log x}{(\log(xe))^2}$.
7. If $x \sin(a+y) - \sin y = 0$. Prove that $\frac{dy}{dx} = \frac{\sin^2(a+y)}{\sin a}$.
8. Find $\frac{dy}{dx}$, if $(\cos x)^x + \cos^{-1} \sqrt{x}$.
9. Check whether the function $f(x) = x^2|x|$ is differentiable at $x=0$ or not.
10. Find the relationship between a and b , so that the function f defined by

$$f(x) = \begin{cases} ax + 1, & \text{if } x \leq 3 \\ bx + 3, & \text{if } x > 3 \end{cases} \text{ is continuous at } x=3.$$

Physics-

Instructions: -

Dear Students, you have to solve following questions on your notebook in neat and clean way. You have to submit this work after opening of schools to your subject teacher.

1. (a) What is an equi-potential surface? Show that the electric field is always directed perpendicular to an equi-potential surface. (b) Derive an expression for the potential at a point along the axial line of a short electric dipole? (5 Marks)
2. A particle of mass m and charge q is released from rest in a uniform electric field of intensity E . calculate the kinetic energy it attains after moving a distance between the plates? (3 Marks)
3. Two point charges $+q$ and $+9q$ are separated by a distance of $10a$. Find the point on the line joining the two charges where electric field is zero? (3 Marks)
4. Electric charge is uniformly distributed on the surface of a spherical balloon. Show how electric intensity and electric potential vary (a) on the surface (b) inside and (c) outside. (5 Marks)
5. (a) An air filled capacitor is given a charge of $2 \mu\text{C}$ raising its potential to 200 V . If on inserting a dielectric medium, its potential falls to 50 V , what is the dielectric constant of the medium? (b) A conducting slab of thickness ' t ' is introduced without touching between the plates of a parallel plate capacitor separated by a distance d (t is less than d). Derive an expression for the capacitance of a capacitor? (5 Marks)

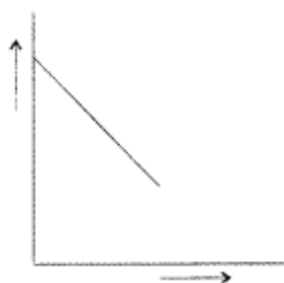
6. A cube of side b has a charge q at each of its vertices. Determine the potential and electric field due to this charge array at the centre of the cube. (3 Marks)

Chemistry-

Instructions-

- (i).Solve all the questions on fair notebook.
- (ii) Each question carry 3 marks each.

- 1.The rate constant for a reaction of zero order in A is $0.0030 \text{ mol L}^{-1} \text{ s}^{-1}$. How long will it take for the initial concentration of A to fall from 0.10 M to 0.075 M?
2. What do you understand by the rate law and rate constant of a reaction? Identify the order of a reaction if the units of its rate constant are : (i) $\text{L}^{-1} \text{ mol s}^{-1}$ (ii) $\text{L mol}^{-1} \text{ s}^{-1}$
3. (a) For a reaction $\text{A} + \text{B} \rightarrow \text{P}$, the rate law is given by, $r = k[\text{A}]^{1/2} [\text{B}]^2$.
What is the order of this reaction?
(b) A first order reaction is found to have a rate constant $k = 5.5 \times 10^{-14} \text{ s}^{-1}$. Find the half life of the reaction.
4. For a chemical reaction $\text{R} \rightarrow \text{P}$, the variation in the f concentration (R) vs. time (t) plot is given as
(i) Predict the order of the reaction.
(ii) What is the slope of the curve?



5. For a decomposition reaction the values of rate constant k at two different temperatures are given below :
 $k_1 = 2.15 \times 10^{-8} \text{ L mol}^{-1} \text{ s}^{-1}$ at 650 K
 $k_2 = 2.39 \times 10^{-7} \text{ L mol}^{-1} \text{ s}^{-1}$ at 700 K
Calculate the value of activation energy for this reaction.
($R = 8.314 \text{ J K}^{-1} \text{ mol}^{-1}$).

Biology-

- 1.Analyze the structure of an anatropous ovule. How does its orientation provide evolutionary advantage in angiosperms for successful fertilization? (3 Marks)
- 2.Down syndrome results from chromosomal abnormalities. Evaluate how this genetic condition arises during gamete formation and analyze its impact on the growth and development of affected individuals. (3 Marks)
- 3.Interpret Miller and Urey's experiment in the context of origin of life. If you had to design a modified version of this experiment with modern knowledge, what changes would you introduce and why?"
- 4.Examine the life cycle of Plasmodium in humans and mosquitoes. At which stage could intervention be most effective for controlling malaria transmission? Justify your answer with reasoning.(3Marks)
- 5.DNA replication is a highly coordinated process. Analyze the specific functions of DNA polymerase, helicase, and ligase, and predict what errors or consequences would occur if any one of them becomes non-functional. (3 Marks)
- 6.Evaluate the hormonal regulation of menstrual cycle phases with the help of a diagram. Predict how disruption in secretion of FSH or LH would affect ovulation and fertility in females.(5 Marks)

Business Studies-

Instructions: Write the answers in fair notebook.

Q.1 Bhagwati Enterprises is a company engaged in the marketing of air- conditioners of a famous brand. The company has a functional structure with four main functions — Purchase, Sales, Finance and Staffing. As the demand for the product grew, the company decided to recruit more employees.

Identify the concept which will help the Human Resource Manager to find out the number and type of personnel available so that he could decide and recruit the required number of persons for each department.

Q.2 Mr. Naresh recently completed his M.B.A. from one of the Indian Institutes of Management in Human Resource Management. He has been appointed as Human Resource Manager in a Truck Manufacturing Company. The company has 1,500 employees and has an expansion plan in hand that may require additional 500 persons for various types of jobs. Mr. Naresh has been given the complete charge of the company's Human Resource Department.

List out the specialised activities that Mr. Naresh is supposed to perform as the Human Resource Manager of the company.

Q.3 Aditya Rubbers is thinking of knowing the worth of its employees but it is unable to do so yet. The firm now has decided to include a step in its staffing process through which it can judge the performance of its employees.

Name the step the organisation will include.

Name two more other steps in the staffing process which precede this step.

Q.4 In a shoe manufacturing company a group of new recruits are being trained. They are put under the guidance of a master worker Mr. Arun. Mr. Arun is guiding them to acquire a higher level of skills. The training programme for the workers is supposed to last for around four months.

Identify the training method discussed in the above para.

Accountancy-

Instructions:

Answer all the questions neatly in your Accountancy Notebook.

1. What is partnership deed? Why is it necessary to have a Partnership deed?
2. Give two circumstances in which the fixed capitals of the partners may change?
3. List the item appearing on the credit side of partner's capital account when capitals are fluctuating.
4. Name the items that may appear on the debit side of partner's current account.
5. List the item appearing on the credit side of partner's capital account when capitals are fixed.
6. List the item appearing on the debit side of partner's capital account when capitals are fixed.
7. When is it that the capital Account of a partner does not show a debit balance in spite of regular & consistent losses year after year?
8. In the absence of any provision in the partnership deed at what rate will the interest on loan to partners be allowed?
9. State provisions of Partnership Act relating to Partnership Account if there is no partnership deed
 - a. Interest on capital
 - b. Salaries to partner
 - c. Profit & loss ratio
 - d. Interest on Drawings
10. How are mutual relations of partners governed in the absence of Partnership deed?
11. In the absence of Partnership deed, mutual relations of partners are governed according to Partnership Act, 1932.
12. Which account shows Appropriation of Profits in case of partnership accounts.
13. A, B & C are partners Sharing Profit and Losses in the ratio of 2:2:1 resp. A is entitled to a commission of 10% on net profit after charging such commission. Net profit before charging such commission is Rs 1,10,000. Find out commission payable to A.
14. When can a Reconstitution of a Partnership firm happen?
15. For what period the interest on total drawings will be calculated if:

- equal amount is withdrawn at the beginning of each month
 - equal amount is withdrawn at the end of each month
 - equal amount is withdrawn in the mid of each month
 - equal amount is withdrawn at the beginning of each quarter
 - equal amount is withdrawn at the end of each quarter
 - equal amount is withdrawn in the mid of each quarter
 - equal amount is withdrawn at the beginning of each month for six months only
 - equal amount is withdrawn at the end of each month for six months only
 - equal amount is withdrawn in the mid of each month for six months only
- As per AS-10 what type of goodwill can be recorded in the books of accounts?
 - How will you treat Accumulated Profits & Reserves in case of admission of a new partner?
 - How will you treat Accumulated Losses in case of admission of a new partner?
 - Is it necessary to dissolve the existing Partnership at the time of admission of a new partner?
 - In what ratio will the goodwill brought in by the new partner distributed?
 - Explain the treatment of Accumulated Losses At the time of retirement/death of a partner.
 - Why balance at bank is never transferred to the Realisation Account.
 - How will you treat goodwill appearing in the balance sheet at the time of change in profit sharing ratio.
 - What is the nature of Realisation Account?
 - How will you calculate the amount which is due to a deceased partner?

Punjabi-

ਪੱਕੀ ਕਾਪੀ ਉੱਤੇ ਸਾਫ਼ ਲਿਖਾਈ ਵਿੱਚ ਲਿਖੋ:- ਕੁੱਲ ਅੰਕ- 4 +4+4

ਪ੍ਰਸ਼ਨ 1-ਭਾਰਤ ਸਾਈਕਲ ਦੇ ਯੁੱਗ ਵਿੱਚ ਨਹੀਂ ਪਹੁੰਚਿਆ ਤੇ ਸਾਈਕਲ ਗਰੀਬਾਂ ਦੀ ਸਵਾਰੀ ਹੈ। ਪ੍ਰੋਫੈਸਰ ਦੇ ਮਨ ਵਿੱਚ ਇਹ ਵਿਚਾਰ ਕਿਉਂ ਆਉਂਦੇ ਹਨ ?

ਉੱਤਰ-ਪ੍ਰੋਫੈਸਰ ਨੂੰ ਅਖਬਾਰ ਵਿੱਚ ਪੜ੍ਹੇ ਇਕ ਲੀਡਰ ਦੇ ਭਾਸ਼ਣ ਦਾ ਇੱਕ ਵਾਕ ਯਾਦ ਆਉਂਦਾ ਹੈ ਕਿ ਜਿੱਥੇ ਦੂਜੇ ਦੇਸ਼ਾਂ ਵਿੱਚ ਘੱਟੋ ਘੱਟ ਕਾਰਾਂ ਦਾ ਯੁੱਗ ਆ ਗਿਆ ਹੈ। ਉਥੇ ਭਾਰਤ ਅਜੇ ਸਾਈਕਲ ਯੁੱਗ ਤੱਕ ਪੁੱਜਾ ਹੈ। ਪਰ ਪ੍ਰੋਫੈਸਰ ਸੋਚਦਾ ਹੈ ਕਿ ਭਾਰਤ ਵਿੱਚ ਤਾਂ ਅਜੇ ਸਾਈਕਲ ਵੀ ਬਹੁਤ ਘੱਟ ਲੋਕਾਂ ਕੋਲ ਹੈ। ਜੇਕਰ ਸਾਈਕਲ ਗਰੀਬਾਂ ਦੀ ਸਵਾਰੀ ਹੋਣ ਤੇ ਵੀ ਸਭ ਗਰੀਬ ਸਾਈਕਲ ਨਹੀਂ ਖਰੀਦ ਸਕਦੇ ਤਾਂ ਫਿਰ ਤਾਂ ਭਾਰਤ ਸਾਈਕਲ ਯੁੱਗ ਵਿੱਚ ਨਹੀਂ ਪਹੁੰਚਿਆ। ਇਸੇ ਪ੍ਰਸੰਗ ਵਿੱਚ ਪ੍ਰੋਫੈਸਰ ਦੇ ਮਨ ਵਿੱਚ ਇਹ ਵਿਚਾਰ ਆਉਂਦੇ ਹਨ ਜਿਸ ਸਮੇਂ ਇਹ ਕਹਾਣੀ ਲਿਖੀ ਗਈ ਸੀ ਉਸ ਸਮੇਂ ਸਾਈਕਲ ਵੀ ਬਹੁਤ ਲੋਕ ਘੱਟ ਲੋਕਾਂ ਕੋਲ ਸਨ।

ਪ੍ਰਸ਼ਨ 2 ਸਾਂਝ ਕਹਾਣੀ ਦੀ ਪਿੱਠ ਭੂਮੀ ਵਿੱਚ ਬਣਦੀਆਂ ਪਰਿਸਥਿਤੀਆਂ ਨਾਲੋਂ ਅਜੋਕੀਆਂ ਪਰਿਸਥਿਤੀਆਂ ਕਿਵੇਂ ਭਿੰਨ ਹਨ?

ਉੱਤਰ- ਸਾਂਝ ਕਹਾਣੀ ਦੀ ਪਿੱਠ ਭੂਮੀ ਵਿੱਚ ਬਣਦੀਆਂ ਪਰਿਸਥਿਤੀਆਂ ਨਾਲੋਂ ਅਜੋਕੀਆਂ ਪਰਿਸਥਿਤੀਆਂ ਵਿੱਚ ਅੰਤਰ ਆ ਗਿਆ ਹੈ। ਸਮਾਂ ਬੀਤਣ ਨਾਲ ਭਾਰਤ ਨੇ ਤਰੱਕੀ ਕਰ ਲਈ ਹੈ। ਭਾਰਤ ਵਿੱਚ ਹੁਣ ਸਾਈਕਲ ਦਾ ਯੁੱਗ ਹੀ ਨਹੀਂ ਰਿਹਾ ਸਗੋਂ ਅੱਗੇ ਵਿਕਾਸ ਹੋਇਆ ਹੈ। ਲੋਕਾਂ ਕੋਲ ਸਕੂਟਰ, ਮੋਟਰਸਾਈਕਲ ਤੇ ਕਾਰਾਂ ਹੁਣ ਆਮ ਹੀ ਹੋ ਪਈਆਂ ਹਨ। ਪ੍ਰੋਫੈਸਰਾਂ ਦੀ ਤਨਖਾਹ ਵੀ ਕਾਫੀ ਵਧ ਗਈ ਹੈ। ਜਿਸ ਨਾਲ ਉਹ ਆਪਣਾ ਗੁਜ਼ਾਰਾ ਬੜੀ ਆਸਾਨੀ ਨਾਲ ਕਰ ਸਕਦੇ ਹਨ। ਹੁਣ ਸੜਕਾਂ ਪਹਿਲਾਂ ਵਰਗੀਆਂ ਹੀ ਟੁੱਟੀਆਂ ਹੋਈਆਂ ਨਹੀਂ ਹਨ। ਹੁਣ ਸਾਫ਼ ਤੇ ਪੱਧਰੀਆਂ ਸੜਕਾਂ ਵੀ ਹਨ। ਆਵਾਜਾਈ ਵੀ ਅੱਗੇ ਨਾਲੋਂ ਵਧ ਗਈ ਹੈ। ਬੱਸਾਂ ਲਗਭਗ ਹਰ ਸੜਕ ਤੇ ਹਰ ਪਿੰਡ ਨੂੰ ਵੱਡੀ ਗਿਣਤੀ ਵਿੱਚ ਚੱਲਣ ਲੱਗ ਪਈਆਂ ਹਨ। ਸਰਕਾਰ ਬੁਢਾਪਾ ਪੈਨਸ਼ਨ ਵੀ ਲਾਗੂ ਕਰ ਚੁੱਕੀ ਹੈ ਜਿਸ ਕਾਰਨ ਬੇਸਹਾਰਾ ਬਜ਼ੁਰਗ ਹੁਣ ਪਹਿਲਾਂ ਵਿਚਾਰੇ ਨਹੀਂ ਰਹੇ। ਇੱਕ ਵੱਡੀ ਤਬਦੀਲੀ ਇਹ ਵੀ ਆਈ ਹੈ ਕਿ ਮਨੁੱਖ ਮਨੁੱਖ ਤੋਂ ਦੂਰ ਹੋ ਰਿਹਾ ਹੈ। ਹੁਣ ਸਾਈਕਲ ਜਾਂ ਸਕੂਟਰ ਸਵਾਰ ਕਈ ਵਾਰੀ ਰਸਤੇ ਜਾਂਦੀ ਸਵਾਰੀ ਦੀ ਪਰਵਾਹ ਨਹੀਂ ਕਰਦੇ ਅਤੇ ਆਪਣੇ ਧਿਆਨ ਲੰਘ ਜਾਂਦੇ ਹਨ। ਲੋਕਾਂ ਦੇ ਦਿਲ ਵਿੱਚ ਹਮਦਰਦੀ ਦੀ ਭਾਵਨਾ ਵੀ ਘਟੀ ਹੈ।

ਪ੍ਰਸ਼ਨ 3 ਗਵਾਲੇ ਦੇ ਮਸਾਲੇ ਦੀ ਟੇਕਰੀ ਚੁੱਕ ਕੇ ਲੈ ਜਾਣ ਤੋਂ ਬਾਅਦ ਨੀਲੀ ਦੇ ਮਨ ਦੀ ਹਾਲਤ ਲੇਖਕ ਨੇ ਕਿਵੇਂ ਬਿਆਨ ਕੀਤੀ ਹੈ ?

ਉੱਤਰ-ਜਦ ਗਵਾਲਾ ਮਸਾਲੇ ਦੀ ਟੇਕਰੀ ਚੁੱਕ ਕੇ ਲੈ ਜਾਂਦਾ ਹੈ ਤਾਂ ਨੀਲੀ ਉਸ ਵੱਲ ਦੇਖਦੀ ਹੈ। ਜਦ ਗਵਾਲਾ ਗੇਟ ਕੋਲ ਪੁੱਜਦਾ ਹੈ ਤਾਂ ਨੀਲੀ ਅੜਿੰਗ ਕੇ ਜਿਵੇਂ ਗਵਾਲੇ ਨੂੰ ਬੁਲਾਉਂਦੀ ਹੈ। ਜਦ ਗਵਾਲਾ ਕੋਠੀ ਤੋਂ ਬਾਹਰ ਚਲਾ ਜਾਂਦਾ ਹੈ ਤਾਂ ਨੀਲੀ ਕਿੰਨਾ ਚਿਰ ਮਹਿੰਦੀ ਦੇ ਬੂਟੇ ਹੇਠ ਖੜੀ ਬੁਥੀ ਚੁੱਕੀ ਗੇਟ ਵੱਲ ਦੇਖਦੀ ਰਹਿੰਦੀ ਹੈ ਜਿਵੇਂ ਗਵਾਲੇ ਨੂੰ ਉਡੀਕਦੀ ਹੋਵੇ ਕਦੇ ਕਦੇ ਉਹ ਅੜਿੰਗਦੀ ਹੈ ਜਿਵੇਂ ਗਵਾਲੇ ਨੂੰ ਆਵਾਜ਼ਾਂ ਮਾਰ ਕੇ ਕਹਿੰਦੀ ਹੋਵੇ ਕਿ ਮੇਰੇ ਮਾਲਕ। ਤੈਨੂੰ ਕਿਉਂ ਨਹੀਂ ਸਮਝ ਆਉਂਦੀ ਅਜੇ ਤੇ ਦੋ ਦਿਨ ਹੋਏ ਮੇਰੇ ਬੱਚੀ ਨੂੰ ਮੋਇਆ ਥੋੜਾ ਮੈਂ

ਉਸ ਨੂੰ ਭੁੱਲ ਜਾਵਾਂਗੀ ਮੈਂ ਦੁੱਧ ਦਿਆਂਗੀ ਪਰ ਕੁਝ ਚਿਰ ਤੂੰ ਹੋਰ ਸਬਰ ਕਰ ਲੈ ਤੂੰ ਮੁੜ ਆ ਇੰਜ ਮੈਨੂੰ ਭੁੱਖਾ ਨਾ ਮਾਰ ਅੱਗੇ ਇਸ ਤਰਾਂ ਕਹਾਣੀਕਾਰ ਨੇ ਨੀਲੀ ਦੇ ਮਨ ਦੀ ਦਰਦਨਾਕ ਹਾਲਤ ਨੂੰ ਬਿਆਨ ਕੀਤਾ ਹੈ।

English-

Instructions:

Do all the work in Fair Notebook day -wise in neat and clean handwriting

Q1 During "The Last Lesson "everybody, including Mr Hamel Franz and the villagers are filled with regret. Comment. 5 Marks

Q2, 'Lost Spring' explain the grinding poverty and traditions that condemn thousands of people to a life of abject poverty. Do you agree? Why/why not? 5 Marks

Q3. In certain states of India ,there is a great imbalance in the male female ratio. This is the result of special treatment given to boys in the family. Why is it so? How can we change this mindset ?

Write an article in 150- 200 words on 'Gender discrimination in society'. You are Karuna/Karan. 5 Marks

Q4, Lack of job opportunities in the rural areas is forcing people to migrate to cities. Every big city thus has a number of slums in it. Life in these slums is miserable. Write a letter in 120-150 words to the Editor of a national newspaper on how we can improve the living conditions in the slums. You are Aditya /Aditi.

5 Marks

Information Technology-

Instructions - Please write this work on notebook and bring all completed homework on the reopening day. There will a class test of all these questions once the school opens. All questions are worth of 3 marks each.

Explain the following: (Words limit 70-80 words)

1. What are comment entries in Java? Mention two ways to give comments with examples.
2. Why Java is platform independent?
3. Write any best four features of Java.
4. What is Java Interpreter and write the need of JVM in Java?

FMM-

Instructions: Write the topics in fair notebook

1. Primary and Secondary Market
2. Key indicators of Securities Market