

JKG International school, Indirapuram
Holiday Assignment (2018-19)
Class- XI

Subject-English

- Q1. On account of heavy fog and chilly winters, your principal has decided to extend the winter vacation by a week. As the head boy/girl draft a notice informing students of the same.
- Q2. Suppose you are the director, Indian Institute of languages. Write a suitable admission notice mentioning details like eligibility facilities available etc to be put up in all schools of the city.
- Q3. MTV Roadies is going to conduct auditions for its new season. Create an attractive poster announcing the auditions.
- Q4. You are HR manager of Elephanta software services. You require software engineers familiar with ERP software Oracle with minimum 5 years experience. Draft a suitable classified newspaper advertisement for the same.
- Q5. You recently went on a Volvo bus trip with Easy Coach bus company. In their advertisement, they promised an enjoyable day trip to a rural area. In fact, it was a total disaster. Write a letter of complaint, asking for your money back.
- Q6. You are Rohan Sharma, monitor of class 11 in Hariram Sr Secondary School, Dev Nagar, Sonapat. Write a letter to your principal asking him to arrange for special coaching in Physics, Maths, and Chemistry for your class. Give reasons why you need this.
- Q7. Write a job application for the post of assistant editor in a competition magazine. You are a graduate pursuing MBA and have a good experience of competitive exams.
- Q8. Write an article in not more than 200 words condemning the use of furs and animal skins for making clothes and accessories. You are Bharti/ Rajesh.
- Q9. You have to speak 'How to avoid being cyber bullied'? Prepare your speech to be delivered at the inter school declamation contest being organised as a part of the annual cultural festival of your school.
- Q10. You are Kirti/ Kamal, the cultural secretary of your school. Recently your school celebrated the 20th anniversary of its foundation. Write a report for your school magazine in

150-200 words on the celebration of founders day in your school.

Literature

- Q11. Mention some instances to show that the grandmother was highly composed and patient.
- Q12. Why did the captain change the plan to reach Australia?
- Q13. What difficulties did the scanning team face and why?
- Q14. Why and how is earth considered as a living organism?
- Q15. Which rule did Mr Crocker-Harris follow strictly which many teachers did not follow?

- Q16. Who was John Byro? What misfortune had happened to him?
 Q17. Describe the narrator. Why did she visit No 46, MARCONI STREET?
 Q18. What dilemma did Dr. Andrew face?
 Q19. What happened when the king rode down the main road?
 Q20. What does Annie inform her children about weekends?

SUBJECT – MATHEMATICS

- Q1. Find a and b, if $(a+b, 2b-3) = (4, -5)$
- Q2. What is the probability that a letter chosen at random from a word 'EQUALITY' is a vowel?
- Q3. Write the negation of the statement " $\sqrt{7}$ is a rational number" .
- Q4. $i^9 + i^{10} + i^{11} + i^{12}$ in the form of $a+ib$.
- Q5. If $U = \{a, b, c, d, e\}$, $A = \{a, b, c\}$ and $B = \{b, c, d, e\}$. show that $(A \cap B)' = A' \cup B'$
- Q6. Find the sum of odd integers from 1 to 2001.
- Q7. Find the general solution of : $2\tan x - \cot x + 1 = 0$
- Q8. Evaluate: $\lim_{x \rightarrow 0} \frac{\sqrt{2-x} - \sqrt{2}}{x}$
- Q9. If A and B are two sets and U is a universal set such that $n(U) = 1000$, $n(A) = 300$, $n(B) = 400$ and $n(A \cap B) = 200$, find the total number of elements which neither belong to A or B.
- Q10. Find the equation of hyperbola, whose foci are $(\pm 5, 0)$ and transverse axis is of length 8.
- Q11. Centroid of a triangle with vertices $(a, 1, 3)$, $(-2, b, -5)$ and $(4, 7, c)$ is origin. Find the value of a, b and c.
- Q12. Express the given complex number in polar form: $\frac{2+6\sqrt{3}i}{5+\sqrt{3}i}$
- Q13. A committee of 5 is to be formed out of 6 men and 4 ladies. In how many ways can this be done, when a) at least 2 ladies are included; b) at most 2 ladies are included?
- Q14. Find the domain and range : $f(x) = \frac{x^2-3}{x-3}$
- Q15. Find $(x+1)^6 + (x-1)^6$. Hence evaluate $(\sqrt{2} + 1)^6 + (\sqrt{2} - 1)^6$
- Q16. Find the equations of the medians of the triangle ABC whose vertices are $A(2, 5)$, $B(-4, 9)$, $C(-2, -1)$.
- Q17. If the letters of the word ASSASSINATION are arranged at random. Find the probability that:

i) four S's come consecutively in the word

ii) All A's are not coming together

Q18. Find the lengths of major and minor axes, coordinates of the vertices and the foci; the eccentricity and length of the latus rectum of the ellipse:

$$\frac{x^2}{36} + \frac{y^2}{4} = 1$$

Q19. i) Find the derivative of $x^2 \cos x$ using first principle.

ii) Find the derivative of $e^{\sqrt{\tan x}}$ using first principle.

Q20. Find the equation of the circle passing through the points (5,7), (6,6) and (2,-2). Find its radius and centre.

Q21. A class has 175 students. The following description gives the number of students studying one or more of the subjects in the class. Mathematics 100; Physics 70; Chemistry 46; Mathematics & Physics 30; Mathematics & Chemistry 28; Physics and Chemistry 23; Mathematics, physics and chemistry 18.

Find i) how many students are enrolled in Mathematics alone; Physics alone and chemistry alone.

ii) the number of students who have not offered any of these subjects.

Q22. Prove that: $\frac{\sin 8x \cos x - \sin 6x \cos 3x}{\cos 2x \cos x - \sin 4x \sin 3x} = \tan 2x$

Q23. Using principle of mathematical induction, prove that:

$$\frac{1}{1.2.3} + \frac{1}{2.3.4} + \dots + \frac{1}{n(n+1)(n+2)} = \frac{n(n+3)}{4(n+1)(n+2)} \quad \text{for all } n \in \mathbb{N}$$

Q24. Differentiate the following with respect to x:

i) $\frac{\sec x + \tan x}{\sec x - \tan x}$

ii) $\frac{ax^2 + bx + c}{\sqrt{x}}$

Q25. A manufacturer has 600 litres of 12% solution of acid. How many litres of 30% acid solution must be added to it so that acid content in the resulting mixture will be more than 15% but less than 18%?

Q26. Calculate mean, variance and standard deviation for the following frequency distribution:

Class	33-36	37-40	41-44	45-48	49-52
	15	17	21	22	25

Q27. i) Find the sum of the series $3.8 + 6.11 + 9.14 + \dots$ to n terms.

ii) Find the sum of the series $5 + 55 + 555 + \dots$ to n terms.

Q28. Prove that :

$$\text{i) } \cos^2 x + \cos^2\left(x + \frac{2\pi}{3}\right) + \cos^2\left(x - \frac{2\pi}{3}\right) = \frac{3}{2}$$

$$\text{ii) } \tan 4x = \frac{4 \tan x (1 - \tan^2 x)}{1 - 6 \tan^2 x + \tan^4 x}$$

Q29. Prove that the product of the lengths of perpendiculars drawn from the points $A(\sqrt{a^2 - b^2}, 0)$ and $B(-\sqrt{a^2 - b^2}, 0)$ to the line $\frac{x}{a} \cos \theta + \frac{y}{b} \sin \theta = 1$ is b^2 .

SUBJECT : CHEMISTRY

Q1. Define Le-Chatelier's principle. Why does solubility of CO_2 decrease with rise in temperature.

Q2. Why does the dissociation of PCl_5 decrease in the presence of Cl_2 ?

Q3. The value of K_c for the reaction:

$3\text{O}_2(\text{g}) \longrightarrow 2\text{O}_3(\text{g})$ is 2.0×10^{-50} at 25°C . If the equilibrium concentration of O_2 in air at 25°C is $.6 \times 10^{-2}$, what is the concentration of O_3 .

Q4. Calculate the concentration of hydroxyl ion in 0.1M solution of ammonium hydroxide having $K_b = 1.8 \times 10^{-5}$.

Q5. Balance the following equation by oxidation number as well as ion-electron method: $\text{P}(\text{s}) + \text{OH}^-(\text{aq}) \longrightarrow \text{PH}_3(\text{g}) + \text{H}_2\text{PO}_2^-(\text{aq})$

Q6. How many hydrogen bonded water molecules are present in $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$?

Q7. Why is LiF almost insoluble in water where LiCl is soluble not only in water but also in acetone?

Q8. $(\text{CH}_3)_3\text{N}$ is basic but $(\text{CF}_3)_3\text{N}$ is not basic. Explain.

Q9. Write the structural formulae of :

(a) p-Nitroaniline. (b) 2,3- di bromo-1phenylbutane. (c) o- Ethylanisole.

(d) 4- Ethyl-1- fluoro 2_nitro benzene.

Q10. Explain stability of carbocation, carbanion and free radical.

Q11. What is conformation. Explain conformation with help of Newman projection and Sawhorse representation of ethane.

Q12. Do conversion of following:

(a) propanol to propene. (b) ethylene to 1-Butyne

(c) propene to acetone. (d) but1-ene to Buta-1,3-diene.

Q13. The hydrocarbon A adds one mole of hydrogen in the presence of a platinum

catalyst to form n-hexane. When A is oxidized vigorously with KMnO_4 , a single carboxylic acid containing three carbon atom is isolated. Give the structure of A and explain.

Q14. Why does benzene undergo electrophilic substitution reaction easily and nucleophilic substitution with difficulty?

Q15. Which after two ClO_2^- or ClO_4^- shows disproportionation reaction and why?

Q16. Calculate (a) the hydrolysis constant
(b) the degree of hydrolysis and
(c) the pH of 0.1 M sodium acetate solution.

The dissociation constant of CH_3COOH at room temperature at room temperature is 1.8×10^{-5} .

Q17. The compound AgF_2 is unstable compound. However if formed, the compound act as A very strong oxidising agent. Why?

Q18. Explain hybridization and shape and formation of ethyne.

Q19. With the help of M.O.T explain bond order, bond length and magnetic behaviour of O_2^{2-}

Q20. Explain why half filled and fully filled orbitals are more stable?

Q21. What is common ion effect? Explain how it helps in salt analysis.

Q22. Write the conjugate acids and conjugate base for the following:

H_2O , HCO_3^- , HSO_4^- , NH_3 .

Q23. The pH of human blood is 7.38. Calculate the hydronium ion concentration.

Q24. Beryllium and magnesium does not form colour flame where as other alkaline earth metal do so why?

Q25. (a) PbX_2 is more stable than PbX_4 Why?

(b) PbCl_4 is less stable than SnCl_4 but PbCl_2 is more stable than SnCl_2 . Why?

SUBJECT-BIOLOGY

Q.1 What is Taxonomic Key? How it is helpful in in identification & classification of an organism?

Q.2 What is Biological classification? What is the need of classification?

- Q.3 Differential between Red Algae & Brown Algae?
- Q.4 Distinguish between poikilotherms & homeotherms organisms.
- Q.5 Give any four characteristic of hemichordate.
- Q.6 Differentiate between Annelida & Arthropoda.
- Q.7 Define Venation? What are two types of Venation?
- Q.8 Draw the floral formula & floral diagram of family solanaceae.
- Q.9 What is phellogen? Why does it produce?
- Q.10 What are sieve tube elements? Explain their types & function.
- Q.11 Describe the internal structure of dicot root.
- Q.12 Who proposed cell theory? Give its postulates?
- Q.13 'Plasma Membrane is described as ' Protein iceberg in sea of lipids' Why?
- Q.14 Explain the fluid Mosaic Model of Plasma Membrane with labeled Diagram?
- Q.15 Mention three Similarities & three Differences b/w Mitochondria & Chloroplasts?
- Q.16 Differentiate between cofactors, coenzymes & prosthetic group.
- Q.17 What are Nucleic Acids? Describe the Structure of DNA.
- Q.18 Explain four levels of protein structure?
- Q.19 Write six difference between Mitosis & Meiosis?
- Q.20 Describe water potential? What are the factors influencing it ?
- Q.21 Distinguish between photosystem-1 & photosytem-2.
- Q.22 Briefly explain the chemiosmotic hypothesis?
- Q.23 Describe the process & Role of Citric Acid cycle in living organism?
- Q.24 Explain Electron transport chain?
- Q.25 Differentiate between photoperiodism & vernilisation?
- Q.26 Write the principal characteristics of PGR'S.

- Q.27 Describe Transport Mechanism of CO₂ ?
- Q.28 Describe in brief the Respiratory organs of Man.
- Q.29 What is meant by the Resting Membrane potential of Neuron. How do ion channels & sodium- potassium pumps contribute the Resting potential?
- Q.30 Describe Human Neural System?

SUB ECONOMICS

- Q1. When is the demand for a good said to be inelastic?
- Q2. Example of Micro-Economic variable is :
- (a) Wholesale price index (b) national income
(c) Market demand (d) aggregate demand
- Q3. If with the rise in the price of good Y, demand for good X rises, the two goods are (Choose the correct alternative)
- (a) Substitute (b) complements
(c) Not related (d) jointly demanded
- Q4. What is the behavior of average fixed cost as output increases
- Q5. When 4 units of a good are sold, total revenue is rs 100. When 5 units are sold, Marginal revenue is rs.10. At what price are 5th units sold? (Choose the correct alternative)
- (a)Rs. 28 per unit (b) Rs 20 per unit
(b)Rs 18 per unit (d) Rs 22 per unit
- Q6. What will be the impact of following situations on production possibility curve?
- (a) 'skill development program' launched by the Government of india.
(b) Loss of human life in terrorist attack.
(c) Transfer of a group of teachers working in a government school in to another govt. school.

OR

What is marginal rate of transformation? Explain with the help of an example.

- Q7. What will be the impact on the supply of a good when the price of its input changes?
- Q8. Price elasticity of demand of a good is (-)1. When its price falls by one rupee, its demand rises from 16 to 18 units. Calculate the price before changes.
- Q9. The total fixed cost of a firm is given as 12. Given below is its marginal cost schedule . calculate total cost and average variable cost for each given level of output.

Output (units)	1	2	3	4	5	6
Marginal cost (Rs.)	9	7	2	4	8	12

- Q10. At a given price of a good , how does a consumer decides as to how much of that good to buy?

OR

Explain the following properties of indifferent curve:

- (a) Indifference curve is convex to the origin.
- (b) Higher indifference curve indicate higher level of satisfaction.

- Q11. Explain the central problem 'for whom to produce'.
- Q12. Explain the condition of firm's equilibrium in terms of marginal cost and marginal revenue . use diagram.
- Q13. A consumer consumes only two goods ,X and Y whose price are Rs. 2 and Rs.1 per unit respectively. If the consumer choose a combination of the two goods with marginal utility of X and Y being 4 for both. Is the consumer in equilibrium? Explain what will be a rational consumer do in this situation ? use marginal utility analysis.

OR

A consumer consumes only two goods , Each priced at Rs. one per unit. If the Consumer choose a combination of two goods with marginal rate of substitution equals to 2 . Is the consumer in equilibrium? Give reason. Explain what will be a rational consumer do in this condition.

- Q14. Explain with the help of diagrams, the effect of the following changes of the demand of a commodity:
- (a) A rise in the price of substitute good.
 - (b) A rise in the price of complementary good.
- Q15. What are the different phases in the law of variable proportion in terms of total product? Give reasons behind each phase. Use diagram.

STATISTICS FOR ECONOMICS

- Q1. One of the measures of dispersion which is more useful in case of open-end distribution: (1)
- (a) Range
 - (b) Mean Deviation
 - (c) Standard Deviation
 - (d) Quartile Deviation
- Q2. While drawing a scatter diagram if all points appear to form a straight line downward from left to right, then there is: (1)
- (a) Perfect positive correlation
 - (b) Perfect negative correlation
 - (c) No correlation
 - (d) Simple positive correlation
- Q3. Explain the importance of statistics in economics. (3)
- Q4. Explain any three uses of an index number in economics. (3)

OR

Distinguish between Consumer Price Index (CPI) and Wholesale Price Index (WPI).

- Q5. Calculate the Index Number by using weighted index of price relative method from the data given below:

Items	Price in 2000	Price in 2010	Weights
Food	100	200	75
Clothing	20	25	10
Fuel	15	20	5
House rent	30	40	6
Misc.	35	65	4

- Q6. What are the desirable properties of Arithmetic Mean? Mention any three. (3)
- Q7. Find out rank correlation coefficient from the following: (4)
- | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|
| X | 65 | 66 | 57 | 67 | 68 | 69 | 70 | 72 |
| Y | 67 | 56 | 65 | 68 | 72 | 72 | 69 | 71 |

Q8. What is primary data? Explain briefly any two methods to collect primary data. (4)

OR

What is a variable? Distinguish between a discrete and a continuous variable with examples.

Q9. What is a histogram? Draw a histogram of the data given below and determine the value of mode.

Wages	10-20	20-30	30-40	40-50	50-60
60-70					
No. of Employees	8	10	14	10	5

OR

Draw 'less than Ogive' and 'more than Ogive' and find out the value of Median from the following:

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No of Students	2	3	6	11	12	15	10

Q10. From the following calculate mean and median from the following: (6)

Daily Income (in Rs)	10-20	20-30	30-40	40-50	50-60
60-70					
No of workers	5	10	15	20	10

Q11. Define standard deviation. Calculate Standard Deviation and Coefficient of Variation from the following: (6)

X: 35 95 50 80 120

Very short answer questions (1 mark each)

- Q1. Define Correlation
- Q2. What do you mean by Positive Correlation?
- Q3. Mention the type of correlation, if variable change in reverse direction but in equal proportions.
- Q4. How is the problem of equal ranks solved?
- Q5. Explain the steps involved in the calculation of Karl Pearson's method of correlation.
- Q6. What are scatter diagrams?
- Q7. Calculate the coefficient of correlation between price and quantity.

Short answer questions (3/4marks each)

1. Draw a scatter diagram of the following data

X	8	12	16	15	17	15	14	20
Y	5	8	12	14	16	11	10	14

2. Given the following pairs of values of variables A and B. Draw a scatter diagram and indicate whether the correlation is positive or negative

A	62	72	78	58	65	70	66	63	60
B	50	65	63	50	54	60	61	55	54

3. Calculate the coefficient of correlation between price and quantity.

Price	10	11	11	12	12
Quantity	5	6	4	3	3

4. Calculate coefficient of correlation by Indirect method between the values of X and Y

X	10	12	8	15	20	25	40
Y	15	10	6	25	16	12	18

5. Compute coefficient of Rank Correlation between price and supply from the following data

Price	4	6	8	10	12	14	16	18
Supply	10	15	20	25	30	35	40	45

6. Compute coefficient of Rank Correlation from the following data.

X	48	33	40	9	16	16	65	25	15	27
Y	13	13	22	6	14	4	20	9	16	19

SUBJECT : BUSINESS STUDIES

- Q1. Why is business considered an economic activity?
- Q2. Mention any two examples of statutory corporations.
- Q3. What is virtual private networking?
- Q4. Which of the contract is not applicable in life Insurance contract?
- Q5. Give full form of NSIC?
- Q7. What is IEC number?
- Q8. Name the quotation which an exporter sends to the importer in response to a trade enquiry.
- Q9. State, giving reasons, whether the following statements are true or false:
 1. Public sector enterprises are run for the profit motive.
 2. No Indian company carries on any operations outside India.
- Q10. A factory owner gets his stock of goods insured, but he hides the fact that the electricity board has issued him a statutory warning letter to get his factory's wiring changed. Later on, the factory catches fire due to short circuit of wiring. Can he claim compensation?
- Q11. Explain the following terms in brief:
 1. Second hand shop
 2. Vending machines
 3. Cheap jacks
- Q12. Explain GDR, ADR and IDR.
- Q13. "No business is risk free." In the light of this statement, explain the concept of business risk and its any three causes.
- Q14. What technical name is given to an organization which controls production and marketing facilities in more than one country? Explain any three features of such an organization.
- Q15. Imagine life without your local market. What difficulties would a consumer face if there is no retail shop.
- Q16. Explain the role of Indian Chambers of Commerce and Industry in promotion of internal trade.
- Q17. You are a businessman. You want to implement 'e-business'. What is e-business? What are the resources required for its successful implementation?
- Q18. Describe the role of small business in rural India.

- Q19. Mr. Aryan Awasthi is interested in floating a private limited company. Discuss the steps he should undertake.
- Q20. Define Banking. Explain the types of bank accounts.
- Q21. 'Business is essentially a social institution and not merely a profit making activity.' Explain .
- Q22. As a source of finance retained profit is better than other sources. Do you agree with this view? Give reasons for your answer. Can a company grow indefinitely by reinvesting surplus profits?
- Q23. Rekha garments has received an order to export 2000 men's trousers to Swift Import Ltd. located in Australia. Discuss the procedure that Rekha Garments would need to go through for executing the export order.

SUBJECT : ACCOUNTANCY

- Q1. Name any two external users of accounting information.
- Q2. Define Voucher.
- Q3. Should a transaction be first recorded in a journal or ledger? Why?
- Q4. What are special purpose books?
- Q5. Name any two accounting softwares.
- Q6. Explain any three objectives of accounting.
- Q7. Journalise and identify the values involved in the following transactions:
1. Donation given to an organization working for children with special needs Rs. 20,000
 2. Purchased a machinery for making eco-friendly jute bags Rs. 2,50,000.
- Q8. Distinguish between 'Revenue Reserve' and 'Capital Reserve'.
- Q9. What is meant by marshaling of assets and liabilities? Name the ways in which a balance sheet may be marshaled.
- Q10. Describe any three advantages of computerized accounting system.
- Q11. "Cash basis of accounting is not a better basis for depicting the correct financial position of an enterprise." Do you agree? Give reason in support of your answer.
- Q12. Pass journal entries to rectify the following errors, in the books of Prem, which were located after preparation of Trial Balance:
1. Sales book was overcast by Rs. 7,000.
 2. Old furniture sold to Kapil for Rs. 12,000 has been entered in Sales Book.
 3. Sales of goods to Dheeraj amounting to Rs. 25,000 has been wrongly passed through purchase book.
 4. Wages paid for construction of building Rs. 40,000 was debited to wages account.
- Q13. Explain the following accounting principles/concepts:
1. Accrual concept
 2. Business entity concept
 3. Money measurement concept
- Q14. On 1st April 2014, Veeru Ltd. purchased a Machinery for Rs. 2,50,000 and spent Rs. 50,000 on its installation. On 1st July 2016, 1/3rd of machinery purchased on 1st April 2014 was sold for Rs. 15,000 and a new machinery at the cost of Rs. 2,00,000 was purchased on the same date. The company has adopted the method of providing depreciation @ 15% p.a. on straight line method.
Show the machinery account, provision for depreciation account and machinery disposal account for three years ended on 31st March 2015 to 31st March 2017.
- Q15. Kavish, who keeps his books on single entry system, started his business on 1st April, 2016 with a capital of Rs. 3,00,000. At the end of the year ie., on 31st March 2017 the position of Assets & Liabilities was as under:

Particulars	Rs.
Cash at bank	25,000
Furniture	2,20,000
Machinery	75,000
Debtors	40,000
Stock	60,000
Creditors	70,000
Bills payable	20,000

- Q16. Identify the stakeholder group who would be most interested in the following :
1. The ethical or environment activities of the firm.
 2. Whether the firm has a long-term future.
 3. The ability of the firm to carry on providing quality products.
- Q17. Use accounting equation to show the effect of the following transactions of M/s Royal Traders:
1. Started business with cash Rs. 1,20,000.
 2. Purchased goods for cash Rs. 10,000.
 3. Rent received Rs. 5,000.
 4. Salary outstanding Rs. 2,000.
 5. Sold goods for cash (costing Rs. 5,000) Rs. 7,000.
 6. Goods destroyed by fire Rs. 500.
- Q18. Prepare a double column cash book with the help of following information for December 2017 :
- | | |
|---|----------|
| Started business with cash | 1,20,000 |
| Cash paid into bank | 50,000 |
| Purchased goods from Sushmita | 20,000 |
| Sold goods to Dinker and received a cheque | 20,000 |
| Paid to Sushmita cash | 20,000 |
| Cheque received on December 06,2017 deposited into bank | |
- Q19. Differentiate between Provision & Reserve on the basis of the following :
1. Nature
 2. Purpose
 3. Use for the payment of dividend
- Q20. Identify qualitative characteristics of accounting information when
1. Accounting information is clearly presented.
 2. When common unit of measurement and common format of reporting are used. Also explain two more qualitative characteristics of accounting information other than identified above.
- Q21. From the following information, calculate capital at the beginning :
- | | |
|---|--------------|
| Capital at the end of the year | Rs. 4,00,000 |
| Withdrew Rs. 5,000 P.M. for household expenses | |
| Sold his personal investment of Rs. 80,000 at a profit of 25% and introduced that amount into business. | |
| Profit of the current year | Rs. 80,000 |
- Q22. A company switch from manual accounting to computerized accounting. In this process it retrenched many employees working in accounts department.
1. Which value have been ignored by doing so?
 2. Name one accounting software the company can use.
 3. Also give any four point of difference between manual accounting and computerized accounting.

SUBJECT: POLITICAL SCIENCE

- Q1. What is freedom ?
- Q2. Define PIL
- Q3. Why is the Indian Constitution called as Bag of Borrowings ?
- Q4. Why are Rights very essential?
- Q5. What do you understand by development?
- Q6. Which is the best method of the establishment of international peace Hans J. Morgenthau?
- Q7. Mention two features of Indian secular state?
- Q8. How does the Supreme Court act as the guardian of the constitution?
- Q9. Give two difference between FPTP and PR system?
- Q10. Why it is said that the prime minister is the head of the council of ministers?
- Q11. Distinguish between parliament and presidential executive?
- Q12. Briefly describe the four kinds of equality?
- Q13. "Indian Constitution is the mixture of unitary and federal form of government." Explain
- Q14. Do you agree with the statement that Rajya Saba is less powerful in comparison to Lok Saba?
- Q15. What do you understand by economic liberty?
- Q16. Mention any four political rights which are given to the citizens in the democratic country?
- Q17. "Political liberty cannot be imagined without economic liberty?" Analyze
- Q18. What is the relationship between liberty and equality?
- Q19. What are the qualities of good citizen?
- Q20. Mention the powers of Lok Sabah and Rajah Sabha.
- Q21. Write an essay of two hundred words on the proposal to have an elected administration instead of an appointed administration,
- Q22. Describe the function of Prime Minister
- Q23. Explain the fundamental rights in detail.
- Q24. What is the difference between reservation of constituencies and the system of separate electorate? Why did the constitution make reject the letter?
- Q25. What are the unique features of Indian Constitution?

"India is a sovereign, democratic, Republic country". Justify the statement.

SUBJECT- PHYSICS

1. When can an object be considered as a point object.explain in brief.
2. Can we add a vector presenting a force of 10 Newton to a vector of force 200 dyne?
3. Explain the concept of banking of roads with derivation.
4. If 500 kg of water is heated from 20 degree Celsius to 100 degree Celsius calculate the increase in mass of water.
5. A light body and a heavy body have same kinetic energy which one has greater linear momentum explain the conditions of equilibrium of rigid bodies.
6. Express the relation between kinetic energy and linear momentum.

7. State and explain Kepler's law.
8. Does the speed of a satellite remains constant in an orbit explain?
9. What is elastic fatigue? Explain the applications of elasticity.
10. Show that weight of all bodies is zero at the centre of earth.
11. Explain the concept of hydrostatic paradox.
12. Explain why it is difficult to make Mercury enter a fine thermometer tube?
13. Give two examples of forced convection.
14. Write few applications of first law of thermodynamics.
15. Derive the relation between pressure and kinetic energy of the gas.
16. All simple harmonic motions are periodic motion but all periodic motions are not simple harmonic motion.Explain.
17. Explain Doppler's effect of sound in detail.
18. Derive relationship between R and f.
19. Derive mirror formula for convex mirror.
20. State and explain lens maker's formula.

SUBJECT : IP

- Q1 What are the major five functions of the computer?
- Q2 Differentiate between System software and Application software.
- Q3 Define the following terms:
 (i) Compression utility software (ii)Disk Defragmentation Utility software
- Q4 How does firewall work?
- Q5 Write a java code to print the first N odd numbers in TextArea1 and even numbers in TextArea2.
- Q6 The _____ contains all of the components offered by the Swing API.
- Q7 Ms Sneha is working in a software company. She works under MySQL, database. She forget to know the tables which she worked in last week. What MySQL statement she should use to know the tables?
- Q8 Rewrite the following if-else if construct using switch case statement:
- ```

if (opt==1)
 jLabel1.setText ("You entered one");
else if (opt==10)
 jLabel1.setText ("You entered ten");
else if (opt==100)
 jLabel1.setText ("You entered hundred");
else if (opt==1000)
 jLabel1.setText ("You entered thousand");
else
 jLabel1.setText ("Invalid entry");

```
- Q9 What will be the values of variables 'P' and 'Q' after the execution of the following code?
- ```

int P, Q=0;
for (P=1; P<=4; P++)
{
    Q+=P;
    Q--;
}

```

- Q10 }
How many times does the following loop execute? What is the value of num after the execution?

```
int num = 5;
do
{
    System.out.println ("Hello world");
    num--;
}while (num>2);
```
- Q11 What will be displayed in jTextField1 after the execution of the following code?

```
int sum, one = 3, two = 5;
sum = one + two++;
jTextField1.setText (" " +(sum));
jTextField2.setText (" " +(two));
```
- Q12 Mrs. Kumar is using table students with the following columns:
RAO, ADMNO, NAME< AGGREGATE
She wants to display all information of students in descending order of name and within ascending order of aggregate. She wrote the following SQL query and she did not get the desired output:
SELECT * FROM STUDENTS ORDER BY NAME, AGGREGATE DESC;
Rewrite the above query to get the desired output.
- Q13 Write a java code to make the jTextField1 non-editable.
- Q14 Name methods used to perform the following in NetBeans:
(i) To set component visible at run time.
(ii) To return the index value of the selected item from the list.
- Q15 Predict the output of the following code:

```
int n = 4, f = 0, i;
for(i = 1; i <=n ; i++)
{
    f = f * i;
}
jTextField1.setText (" "+f);
jTextField2.setText (" "+i);
```
- Q16 Write output of the following:
(i) SELECT RIGHT('MYSQL and Java in Year 2009',4);
(ii) SELECT TRUNCATE(7.777,1);
(iii) SELECT SUBSTRING('Keep Going',3,6);
- Q17 The following code has some error(s). Rewrite the correct code and underline all the corrections made:

```
int i = 1 ; j = 5;
i = = j + 5;
if (i = j)
{
jTextField1.getText ("i and j are unequal");
jTextField2.setText (" They are not equal");break;
}
else
```

jTextField1.setText("i and j are equal");

Q18 Consider the table "Infant" show below:

Table : Infant

ItemCode	Item	DatePurchase	UnitPrice	Discount
101	Frock	2016-01-23	700	10
102	Cot	2015-09-23	5000	25
103	Soft Toy	2016-06-17	800	10
104	Baby Socks	2014-10-16	100	7
105	Baby Suit	2015-09-20	500	5

Write the commands in SQL.

- (i) To display the details about the Cot.
- (ii) To list the names of items and their unit price that have unit price less than 800 and discount more than 5.
- (iii) To list the names of items and their date of purchase that were purchased after 31th December, 2015.
- (iv) To display item code and unit price in decreasing order of unit price.
- (v) To increase the unit price of each item by 10% of their unit price.
- (vi) To display the names of items that have 'Baby' anywhere in their item names.

Q19. Read the following case study and answer the questions that follow:

AVON Tools has computerized its billing system. The following is the data entry screen in NetBeans IDE used by them:

The screenshot shows a Java Swing window titled "Billing System" with a standard Mac OS window control bar. The form contains the following elements:

- Product ID:
- Product Description:
- Quantity:
- Unit Price:
- Category of City: A, B, C
- Buttons: Calculate, Clear
- Sub Total:
- Tax:
- Delivery and Handling Charges:
- Total:

Enter Product ID , Product Description, Quantity, Unit price and do the following

- (i) When the user clicks Clear button, all the values stored in the text boxes and option button should be cleared.
- (ii) When the Calculate button is clicked. Sub Total , Tax 6.50%, Delivery and Handling charges and Total amount are computed and displayed.

The criterion for calculation of Delivery and Handling charges is as given below:

Category of city Charges

A	2000
B	3000
C	3500

- Sub Total is calculated by multiplying quantity with unit price.
- Tax is calculated as 6.50% of Sub Total.
- Total is calculated as the sum of Sub Total, Tax, Delivery and Handling Charges.

Q20 While making a form in NetBeans, Ms Jayalakshmi wants to enter students roll no. and gender (Male/Female) in to a form. Name the controls that she will use in her form.

SUBJECT : PHYSICAL EDUCATION

Q.1 Define Biomechanics and importance of Biomechanics in Physical Education.

Q.2 What is lever? Elaborate the types of levers.

Q.3 What is Equilibrium? Define types of Equilibrium.

Q.4 Define Centripetal and Centrifugal force.

Q.5 What do you mean by Kinesiology?

Q.6 What do you mean by Psychology?

Q.7 What is the importance of sports Psychology?

Q.8 What are the differences between growth and development?

Q.9 What do you mean by Adolescence?

Q.10 What is learning? Define primary laws of learning with example.

Q.11 Write down the name of secondary law of learning.

Q.12 What do you mean by Plateau?

Q.13 What is the causes of plateau?

Q.14 Define Emotion.and methods of controlling Emotions.

Q.15 Define Sports Training.

Q.16 Define principles of sports training.

Q.17 Define types of warming-up.

Q.18 Define importance of warming-up.

Q.19 What is the guiding principles of warming-up?

Q.20 Define limbering down.and importance of limbering down.

Q.21 What is doping? Explain the side effects of prohibited substances.

Q.22 Explain the types of doping.

Q.23 Explain the doping control procedure in detail.

Q.24 Explain the performance enhancing substances in detail.

Q.25 What do you mean by Ergogenic aids?

Q.26 Explain the types of Ergogenic aids.

SUBJECT: HISTORY

- Q1. Where did the modern human beings originate? Give brief description of theories related to it.
- Q2. How would early humans have obtained food?
- Q3. How did the earliest cities of Southern Mesopotamia emerge? Throw light on the construction and increasing importance of the temples built in those cities.
- Q4. How did kingship emerge in Mesopotamia? What did the king do to increase his influence and control?
- Q5. Briefly describe the social classes of the Roman empire.
- Q6. What is meant by 'Late Antiquity'? Which religious and administrative changes were made during this period?
- Q7. How did the Islamic authority expand under the Caliphs?
- Q8. Explain the first three Crusades and their impact.
- Q9. Discuss political activities of the Mongols after Genghis Khan.
- Q10. What do you know about the four Ullus?
- Q11. Describe the life of monks and nuns of the medieval Europe.
- Q12. How did powerful new states (nation states) emerge in medieval Europe? Why were these states resisted by the aristocracy?
- Q13. What is meant by the Renaissance? Discuss its major characteristics.
- Q14. What was the impact of the Renaissance on the life of people? What was its significance?
- Q15. Discuss the chief features of the major civilisations of the early Americas.
- Q16. What is meant by geographical discoveries? What were reasons behind these discoveries?
- Q17. Describe in detail the inventions made under the Industrial Revolution.
- Q18. Why did the Industrial Revolution occur first of all in England.
- Q19. What legal measures were taken by the British Government to improve the condition of workers? Also state the weakness of these measures.
- Q20. What was the role of 'Gold Rush' in economic and political expansion of America?
- Q21. What was 'The Great Australian Silence'? How did it help to revive culture and traditions of the natives of Australia?
- Q22. What were the major developments before the Meiji restoration that made it possible for Japan to modernize rapidly?
- Q23. Describe the imperialistic expansion of Japan before the First World War.
- Q24. Describe the main features of the political development of Japan after First World War.

विषय- हिंदी

1. स्वतंत्रता संघर्ष में हिंदी साहित्य का योगदान विषय पर अपने विचार व्यक्त कीजिये I
2. आलेख और फीचर लेखन का अंतर स्पष्ट करते हुए दो विषयों पर आलेख एवं दो विषयों पर फीचर लेखन कीजिए I

3. शीतकालीन अवकाश के दौरान पढ़ी गई किसी हिंदी की पुस्तक की समीक्षा लिखिए ।
4. शीतकालीन अवकाश के दौरान अपने अनुभव को कलम बद्ध कीजिए ।
5. आलो-आँधरि रचना बेबी की व्यक्तिगत समस्याओं के साथ-साथ हुई सामाजिक मुद्दों को समेटे हैं। किन्हीं दो मुख्य समस्याओं पर अपने विचार कलमबद्ध कीजिए
6. कुड़ियों पर ग्राम-समाज के नियंत्रण को आप कितना सही मानते हैं और क्यों
“ राजस्थान की रजत बूँदें ” पाठ के आधार पर लिखिए ।
7. शास्त्रीय संगीत की तीन घंटों की महफिल और चित्रपर संगीत के गान का आनंदात्मक मूल्य एक क्यों माना गया है ।
8. मानवीय संवेदनाओं का मर जाना, किस प्रकार खतरनाक हो सकता है –सबसे खतरनाक कविता के आधार पर लिखिए ।
9. ‘रजनी’ पाठ के आधार पर सरकारी कार्यालयों की व्यवस्था पर टिप्पणी कीजिए ।
10. ‘भारत माता’ पाठ के आधार पर लिखिए कि आजादी से पहले भारत- निर्माण को लेकर नेहरू जी के क्या सपने थे ? क्या आजादी के बाद वे साकार हुए ?

SUBJECT : COMMERCIAL ART

- Q1. Caricature drawing with black pen.
- Q2. Comm. Advertisement.
- Q3. Logo designing.
- Q4. Colour wheel with primary and secondary colors.
- Q5. Any Festival scene with two human figures.