

DAV International School, Amritsar
Holiday Homework
Class XI & XII (2018-19)

Dear Parents

It's that time of the year again, those golden summer vacation days, when you can have some cherished time at hand to spend with your adorable children. Being in a board class, the students are under constant pressure & anxiety. They keep on juggling between school, tuitions, tests, projects, assignments etc. Now is the time when you can give them a refreshing change from their hectic schedule. But, simultaneously, make sure that they utilize these holidays in a balanced way by devoting equal time to their studies as well. To ensure this, we are giving them Holiday Homework of each subject which is mandatory to be done as per the instructions given.

Wishing you & the children a fun-filled and productive Summer Break.

Regards

Anjana Gupta

Principal

Instructions:

1. Students are required to do the assignments / holiday homework in their respective subject notebooks.
2. HHW is to be submitted on July 7, 2018. In case of late submission of work or incomplete work, the marks of final Board Practical Exams will be affected.
3. There will be Monday Tests in the month of July according to the syllabus and date sheet given.

CLASS – XII

ENGLISH CORE

1. Note- making of the chapters, The Last Lesson & Memories of Childhood. Notes should be prepared for each chapter separately. Use proper abbreviations. (No restriction of main and sub points & skip summary writing)
Format:
 - a. Read the passage carefully to get the theme.
 - b. Identify and underline important points and details.
 - c. Make notes of main ideas under main headings and sub ideas under sub-headings.
 - d. Use recognizable abbreviations (4-6) wherever possible.
2. Frame MCQs for novel chapters 11-15 (min 10 questions each chapter)
3. Write the Theme, of the poems: My Mother at sixty six; Aunt Jennifer's tigers; Keeping Quiet in 100 words each. Also enlist their literary devices with examples.
4. Do the following Character sketches in 120-150 words:
 - Franz
 - M. Hamel
 - Bama
 - Mrs. Hall
5. Do the given Reading Section and Writing Section questions.

Reading and Writing Sections

Read the passage given below carefully and answer the questions that follow:

1. That large animals require luxuriant vegetation has been a general assumption which has passed from one work to another; but I do not hesitate to say that it is completely false, and that it has vitiated the reasoning of geologists on some points of great interest in the ancient history of the world. The prejudice has probably been derived from India, and the Indian islands, where troops of elephants, noble forests, and impenetrable jungles, are associated together in every one's mind. If, however, we refer to any work of travels through the southern parts of Africa, we shall find allusions in almost every page either to the desert character of the country, or to the numbers of large animals inhabiting it. The same thing is rendered evident by the many engravings which have been published of various parts of the interior.
2. Dr. Andrew Smith, who has lately succeeded in passing the Tropic of Capricorn, informs me that, taking into consideration the whole of the southern part of Africa, there can be no doubt of its being a sterile country. On the southern coasts there are some fine forests, but with these exceptions, the traveler may pass for days together through open plains, covered by a poor and scanty vegetation. Now, if we look to the animals inhabiting these wide plains, we shall find their numbers extraordinarily great, and their bulk immense.
3. It may be supposed that although the species are numerous, the individuals of each kind are few. By the kindness of Dr. Smith, I am enabled to show that the case is very different. He informs me, that in lat. 24', in one day's march with the bullock-wagons, he saw, without wandering to any great distance on either side, between one hundred and one hundred and fifty rhinoceroses - the same day he saw several herds of giraffes, amounting together to nearly a hundred.
4. At the distance of a little more than one hour's march from their place of encampment on the previous night, his party actually killed at one spot eight hippopotamuses, and saw many more. In this same river there were likewise crocodiles. Of course it was a case quite extraordinary, to see so many great animals crowded together, but it evidently proves that they must exist in great numbers. Dr. Smith describes the country passed through that day, as 'being thinly covered with grass, and bushes about four feet high, and still more thinly with mimosa-trees.'

5. Besides these large animals, anyone the least acquainted with the natural history of the Cape has read of the herds of antelopes, which can be compared only with the flocks of migratory birds. The numbers indeed of the lion, panther, and hyena, and the multitude of birds of prey, plainly speak of the abundance of the smaller quadrupeds: one evening seven lions were counted at the same time prowling round Dr. Smith's encampment. As this able naturalist remarked to me, the carnage each day in Southern Africa must indeed be terrific! I confess it is truly surprising how such a number of animals can find support in a country producing so little food.
6. The larger quadrupeds no doubt roam over wide tracts in search of it; and their food chiefly consists of underwood, which probably contains much nutriment in a small bulk. Dr. Smith also informs me that the vegetation has a rapid growth; no sooner is a part consumed, than its place is supplied by a fresh stock. There can be no doubt, however, that our ideas respecting the apparent amount of food necessary for the support of large quadrupeds are much exaggerated. The belief that where large quadrupeds exist, the vegetation must necessarily be luxuriant, is the more remarkable, because the converse is far from true.
7. Mr. Burchell observed to me that when entering Brazil, nothing struck him more forcibly than the splendour of the South American vegetation contrasted with that of South Africa, together with the absence of all large quadrupeds. In his Travels, he has suggested that the comparison of the respective weights (if there were sufficient data) of an equal number of the largest herbivorous quadrupeds of each country would be extremely curious. If we take on the one side, the elephants hippopotamus, giraffe, bos caffer, elan, five species of rhinoceros; and on the American side, two tapirs, the guanaco, three deer, the vicuna, peccari, capybara (after which we must choose from the monkeys to complete the number), and then place these two groups alongside each other it is not easy to conceive ranks more disproportionate in size.
8. After the above facts, we are compelled to conclude, against anterior probability that among the mammalia there exists no close relation between the bulk of the species, and the quantity of the vegetation, in the countries which they inhabit. (809 words)

Adapted from: *Voyage of the Beagle*, Charles Darwin (1890)

1.1 On the basis of your understanding of the passage, answer the following questions by choosing the most appropriate option:

1. The author is primarily concerned with
 - a) Discussing the relationship between the size of mammals and the nature of vegetation in their habitats
 - b) Contrasting ecological conditions in India and Africa
 - c) Proving that large animals do not require much food
 - d) Describing the size of animals in various parts of the world
2. According to the author, the „prejudice“ (Para 1) has lead to
 - a) Errors in the reasoning of biologists
 - b) False ideas about animals in Africa
 - c) Incorrect assumptions on the part of geologists
 - d) Doubt in the mind of the author
3. The flocks of migratory birds (Para 5) are mentioned to
 - a) Describe an aspect of the fauna of South Africa
 - b) Illustrate a possible source of food for large carnivores
 - c) Contrast with the habits of the antelope
 - d) Suggest the size of antelope herds
4. Darwin quotes Burchell's observations in order to
 - a) Counter a popular misconception
 - b) Describe a region of great splendor
 - c) Prove a hypothesis
 - d) Illustrate a well-known phenomenon

1.2 Answer the following questions briefly:

1. What prejudice has vitiated the reasoning of geologists?
2. Why does Dr. Smith refer to Africa as a sterile country?
3. What is the „carnage“ referred to by Dr. Smith?
4. What does Darwin’s remark, „if there were sufficient data“, indicate?
5. To account for the „surprising“ number of animals in a „country producing so little food“, what partial explanation does Darwin suggest?
6. What does the author conclude from Dr. Smith and Burchell’s observations?

1.3 Pick out the words/phrases from the passage which are similar in meaning to the following:

- a) Dense (Para 1)
- b) Barren ((Para 2)

Q2. Read the passage given below carefully and answer the questions that follow:

1. I’ve always held the belief that rationale or logic has no place in faith. If you have faith in the Supreme then you must also accept that you are not out there to defend your faith based on any scientific evidence. Those who don’t share your belief have an equal right to their opinion. What matters is your personal stand. If you feel peaceful and joyous, if you feel inspired to do good deeds by having your faith, then by all means keep it, there’s no reason to abandon it.
2. Einstein once got a letter asking if he believed in the Supreme. Einstein sent a telegram in response stating, “I believe in Spinoza’s idea of the Supreme who reveals himself in the orderly harmony of what exists, not in someone who concerns himself with the fates and actions of human beings.” In case you are not familiar, Baruch Spinoza_(1632 – 1677) was a Dutch philosopher (yes, not just brilliant engineers, they have philosophers too). An unorthodox and independent thinker, his views were revolutionary at the time. His philosophy is thought-provoking. So, where does that leave us in regards to faith?
3. To me, faith is a sentiment, it’s an emotion. Just like you fall in love and you surrender in love and you find yourself willing to do anything for the person you love, same is with faith. Faith is love. When you have faith, you let go of your worries of the future, you let go of your guilt of the past, because you have surrendered to the divine will. You remain committed to a life of goodness and action. But, you also recognize that there are other bigger forces, of immense scale, in play in the grand scheme of things and it’ll do you much good to play along.
4. You gain this courage, zest and zeal to work hard, to excel, to serve. Life looks beautiful and everything looks priceless then, because it truly is. Even our suffering is priceless. It gives you strength, it makes you reflect on you. It is priceless because you appreciate life more, it brings you closer to you, the real you. Don’t limit yourself by asking petty things from the Supreme. Trust the immensity of nature. Faith does not mean all your dreams will come true, it simply means you look upon everything that’s granted to you as a blessing. Just focus on your deeds, and before long, you’ll be filled beyond measure
5. Accepting the transient nature of this world, and its eternal impermanence, is the definitive path to inner peace. Either live in complete surrender or exercise total control. If your boat is neither anchored nor guided, it’ll just drift then. (1x2=2) It’ll drift in the direction of your thoughts, desires and emotions. Here today, there tomorrow. Cosmic intelligence is infinitely more subtle, smart, organized and selfless than individual intelligence. Anchor your ship if you are tired of rowing. Have faith. (499 words)

2.1 On the basis of your understanding of the passage, answer the following questions by choosing the most appropriate option:

- a) Faith
 1. Does not depend on rationale and logic
 2. Is a personal stand
 3. Fills us with joy and peace
 4. All of the above

b) Here today, there tomorrow" (Para 5) refers to

1. Our thoughts
2. Our faith
3. Our emotions
4. Our desires

2.2 Answer the following briefly:

1. What was Einstein"s belief about faith?
2. What does one gain from having faith?
3. In what way does suffering become priceless?
4. Why does the writer compare life to a birthday party?
5. What is the definitive path to inner peace?
6. How is cosmic intelligence superior to individual intelligence?
7. Find words from the passage which mean the same as the following:
 - i) proof (para 1)
 - ii) celestial (para 7)

Q3. Read the following passage carefully:

1. Classical dance evolved from Tamil Nadu"s temples across centuries. The revived and reformed *Bharatanatyam* keeps the art born of these ancient temples alive even to this day. Once sustained and nurtured in temples as part of a rich and vibrant temple tradition, classical dance in South India has remained over centuries a dynamic, living tradition that is continuously renewed.
 2. Even 2000 years ago, dance in India was a highly evolved and complex art. It was an integral part of ancient Indian theatre as established by the *Natya Shastra*, the oldest and exhaustive treatise on theatre and dramaturgy. Dance dramas were performed in temple precincts. Dance movements were crystallised in stone as *karanas* in temple sculpture. Following the Bhakti movement in the 6th century, dance and music became powerful vehicles of veneration. The deity was treated like a much-loved king, praised and royally entertained with music and dance, as part of the daily sacred rituals of worship. Gifted, highly educated temple dancers or *devadasis* were supported by the temples that were richly endowed by the rulers. Some 400 temple dancers were dedicated to and maintained by the *Brihadeswarar* Temple in Thanjavur. Dance evolved as a composite art in temples as dancers, *nattuvanars* (dance gurus), musicians, poets, composers, architects, sculptors and painters shared a holistic approach to all the arts.
 3. The evolution of *Bharatanatyam* derives from the invaluable contribution of The Tanjore Quartet. The four Pillai brothers – *Chinnayya*, *Ponnayya*, *Sivanandam* and *Vadivelu* – served as court musicians at the kingdom of Maratha king, *Serfoji II* in the early 19th century. Their legacy to *Bharatanatyam* has been their restructuring of the dance repertoire into the margam format and their vast and diverse music compositions set specifically for dance. Some of their descendants like *Guru Meenakshisundaram Pillai* evolved the famous *Pandanallur bani* (style) and trained many eminent dancers.
 4. From the temples, dance made its way into the courts of kings and dancers were not just *devadasis*, but also *rajanartakis*. By the early 17th century dance forms like *sadir* or *chinna melam*, precursors to *Bharatanatyam* as we know it today had become popular in the courts of the Maratha rulers in Thanjavur. However, in the 19th century, colonial propaganda perceived such dance as vulgar and immoral. It led to the Anti-Nautch Movement and legislation against temple dance and dancers. Divested of all patronage and temple support, *devadasis* were thrown into dire straits. In the early 20th century, thanks to enlightened visionaries like EV Krishna Iyer and later, Rukmini Devi Arundale, and the dedication of a handful of *devadasis* and *nattuvanars*, classical dance was resuscitated and revived as *bharatanatyam*.
- a. On the basis of your reading of the above passage make notes on it using headings and sub-headings. Use recognizable abbreviations wherever necessary. Give an appropriate title.
 - b. Write a summary of the above in 80 words using the notes.

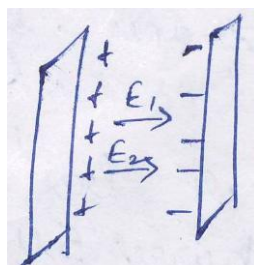
SECTION B
ADVANCED WRITING SKILLS

1. You are the President, Literary Society of Sunshine International School. Draft an invitation to author, Ms Manjul Bajaj requesting her to conduct a workshop on creative writing in your school. You are Romi/Rohit of Zenith Public School
2. Draft an application with bio-data in about 120-150 words for the post of the Librarian in Vision Senior Secondary School, Calicut. You are Radhika/Rajeev from 21, Cherry Road, Madurai
3. You are Seetha / Surya living in Bangalore. You and your friends are planning a week long holiday to a hill station. Write a letter making necessary enquiries from the tour operator before you make your final decision.
4. The use of tobacco in cigarettes and other forms is a great health hazard. People do not pay much heed even to the statutory warning on cigarette packs. On the occasion of No Tobacco Day write a speech in about 150-200 words about the hazards of tobacco.
5. On the occasion of Teachers' Day the Honourable PM of India had an interactive session with students from all over the country through satellite link. Your school also made special arrangements for the students to view the telecast. Write an article in about 150-200 words for your school magazine giving details of the talk and its impact on you. You are Akshay/ Akshita of Brightland Public School, Ganga Nagar.

Physics – XII

Chapter: Electrostatics and Current Electricity

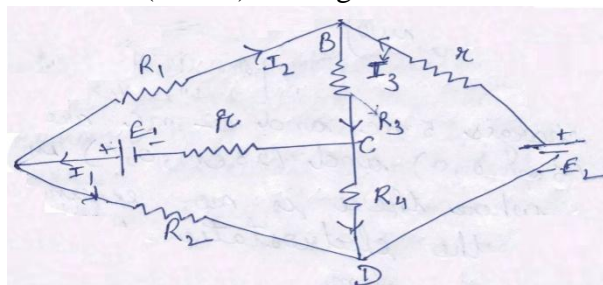
1. A 10m long wire of uniform cross-section 20Ω resistance is used in a potentiometer. The wire is connected in series with a battery of 5V along with an external resistance of 480Ω . If an unknown emf. E is balanced at 6.0 m length of wire. Calculate (a) potential gradient of wire (b) the value of unknown emf. (CBSE 2006)
2. Two charges 5 nC and -2 nC are placed at points (5 cm, 0, 0) and (23 cm, 0, 0) in a region of space where there is no external field. Calculate the electrostatic potential energy of this charge system. (CBSE 2014)
3. A system has two charge $q_A = 2.5 \times 10^{-7}C$ and $q_B = -2.5 \times 10^{-7}C$ located at points. A = (0, 0 – 15cm) and B = (0, 0, 15cm) respectively. What are the total charge and electric dipole moment of the system? (CBSE 2010)
4. Two large thin metal plates are parallel and close to each other. On their inner faces, the plates have surface charge densities of opposite signs and of magnitude $17.0 \times 10^{-22}C/M$. What is the electric field strength E.



1. in the outer region of first plate.
2. in the outer region of second plate.
3. between plates?

(CBSE 2008)

- A cylindrical metallic wire is stretched to increase its length by 10%. Calculate the percentage increase in its resistance.
- Use Kirchoff's rule to write the three equations that may be used to obtain the values of their unknown currents in the branches (shown) in the given circuit.



(CBSE 2012)

- The lengths of three conducting wires are in the ratio of 1:2:3. All the wires are same metal and their ratio are also equal. If we join them in parallel across a battery, what is the ratio current in them?
- A large plane sheet of charge having surface charge density $5.0 \times 10^{-6} \text{ CM}^{-2}$ lies in the X-Y plane. Find the electric flux through a circular area of radius 0.1m if the sheet normal to the circular area makes an angle of 60° with the z- axis. Given that $\epsilon_0 = 8.85 \times 10^{-12} \text{ C}^2 \text{ N}^{-1} \text{ m}^{-2}$. (FAQ)
- A box encloses an electrical dipole consisting of charge $5\mu\text{C}$ of length 10cm. what is the total flux-through box?
- A wire having a mass of 0.45 kg possesses a resistance of 0.014Ω . If the resistivity of the material of wire is $1.78 \times 10^{-7} \Omega \text{ m}$, calculate its length and radius. Given that the density of the material of wire is $8.93 \times 10^3 \text{ kgm}^{-3}$.
- A wire of resistance 5 ohm is drawn out so that its length is increased to twice its original length. Calculate its new resistance.
- A 60W – 220 V bulb and 100W – 220V bulb are connected in parallel to mains supply. Which bulb will draw more current?
- A battery of emf. E and internal resistance r gives a current of 0.5 A with an external resistance of 12Ω and a current of 0.25A with external resistor of 25Ω . Calculate (a) internal resistance of the cell and (b) emf of the cell.
- Three identical resistances are connected in series to a 6Ω resistor. If the current flowing in the circuit is 1.5A, calculate (a) internal resistance of each cell (b) the terminal voltage across the cells. (FAQ)
- A hollow copper tube of 1m length has got external diameter equal to 10cm and its walls are 5mm thick. Find its resistance, if the specific resistance is $1.7 \times 10^{-8} \Omega \text{ m}$.

Chemistry – XII

Chapters

- 1) Solid State
- 2) Electrochemistry
- 3) Solutions
- 4) Haloalkane and Haloarene

Answer the following questions:-

Answer the following questions:-

- 1) Analysis shows that nickel oxide has the formula $\text{Ni}_{0.98}\text{O}_{1.00}$. what fractions of nickel exist as Ni^{2+} and Ni^{3+} ions? (HOTS)
- 2) Why does LiCl acquire pink color when heated in Li vapours ?(AI 2013)
- 3) An element with molar mass 27 g per mole forms a cubic unit cell with edge length 4.05×10^{-8} cm . If the density is 2.7g/cc what is the nature of cubic unit cell?
- 4) Why is FeO not formed in stoichiometric composition?
- 5) Boiling point of water at 750mm mercury is 99.63 celsius . How much sucrose is to be added to 500 g of water such that it boils at 100 celsius
- 6) An element crystallises separately both in hcp and ccp structure. Will the two structures have the same density? Justify your answer
- 7) Gases tend to be less soluble in liquids as the temperature is raised.Why? (reasoning)
- 8 (a) what is Van't hoff factor? What possible values can it have if the solute molecules undergoes dissociation?
(b) An aqueous solution containing 12. 48 g of barium chloride in 1.0 kg of water boils at 373.0832K .Calculate the degree of dissociation of barium chloride. (K_b for water = 0.52K/m (HOTS)
- 9) What happens when we place the blood cell in water? Give reason (board 2015)
- 10) Write the structure of following halogen compounds
(i) 2-chloro-3-methylpentane (ii) 2-(2-chlorophenyl)-1-iodooctane
(iii) 1-bromo-4-sec-butyl-2-methylebenzene. (iv) p-bromotoluene.
(v) chlorophenylmethane
- 11) How will you bring about the following conversions?
(i) benzene to 3-bromonitrobenzene (ii) ethanol to but-1-yne
(iii) 1-bromopropane to 2-bromopropane (iv) benzene to 4-bromo-1-nitrobenzene
(v) aniline to chlorobenzene (vi) 2-methyl-1-propene to 2-chloro-2-methylpropane
(vii) ethyl chloride to propionic acid (viii) but-1-ene to n-butyl iodide
(ix) benzene to phenyl chloromethane (x) tert-butyl bromide to isobutyl bromide (FAQs)
- 12) Explain the following reactions with suitable example :
(i) Finkelstein reaction. (ii) Swarts reaction. (iii) Wurtz reaction. (iv) Wurtz-Fitting reaction
- 13) How much space is empty in a hexagonal closed packed solid? (FAQs)
- 14) Which point defect in ionic crystal does not alter the density of the relevant solid?
- 15) In a p-type semiconductor the current is said to move through holes. Explain.

Subject: Biology – XII

Chapters

- **Reproduction in organisms, Flowering Plants, Human beings**
 - **Reproductive health**
 - **Principles of Inheritance and variations**
1. Why do we say there is no natural death in single celled organisms?
 2. Why do you think the availability of fruits like mango, apple etc. seasonal?
 3. Differentiate between zoospores and zygote.
 4. Differentiate between gametogenesis and embryogenesis
 5. Why do intermodal segments of sugarcane fail to propagate vegetatively, even when they are in contact with damp soil?
 6. Mention the unique features with flowering and fruiting in strobilus runthiana and bamboo.
 7. Explain the importance of syngamy and meiosis in a sexual lifecycle of an organism.
 8. Is merchant monoecism or dioecious? Why?
Where are the sex organs borne in this plant?
 9. Explain the development of female gametophyte in angiosperms.
 10. Explain the role of tapetum in the formation of pollen grains wall.
Why anthers that have a faulty tapetum fail to produce pollen?
 11. What are pollen banks? Mention the importance of pollen banks.
 12. Enumerate the differences between wind pollinated and insect pollinated flowers.
 13. Why is follicular phase called proliferative phase?
 14. What are chorionic villi?
 15. Haemophilia and sickle cells anemia are blood related mendelian disorders, yet they are differ in their pattern of inheritance. Explain the difference.
 16. A cross between a normal couple resulted in a son who was hemophilic and a normal daughter. In course of time, when the daughter was married to a normal man, to their surprise, the grandson was also hemophilic.
 - A. Represent the cross in the form of a pedigree chart. Give the genotype of the daughter and her husband.
 - B. Write the conclusion, you draw about the inheritance pattern of this disease.

Subject: Mathematics – XII

Chapters: Matrices, Determinants, Probability and L.P.P.

1. If $2X + 3Y = \begin{bmatrix} 2 & 3 \\ 4 & 0 \end{bmatrix}$ & $3X + 2Y = \begin{bmatrix} -2 & 2 \\ 1 & -5 \end{bmatrix}$

Find X and Y

2. $A = \begin{bmatrix} 3 & 2 & 5 \\ 4 & 1 & 3 \\ 0 & 6 & 7 \end{bmatrix}$, Express A as sum of two matrices such that one is symmetric and other is skew symmetric

Matrices.

- A matrix A of order 3×3 , has determinant 4, Find the value of $|3A|$
- Find the value of K if area of triangle is 4 sq. units and vertices are (k,0), (4,0), (0,2)
- Find the equation of line joining points (1, 2) and (3,6) using determinants.
- Solve by using matrix method
 $2x - 3y + 4z = 4$
 $3x + y - 2z = 9$
 $2x + 3y - 5z = 7$
- Find A^{-1} by using Elementary Row operations where $A = \begin{bmatrix} 2 & 0 & -1 \\ 5 & 1 & 0 \\ 0 & 1 & 3 \end{bmatrix}$
- A total amount Rs. 7000 is deposited in three different saving accounts with annual interest of 5%, 8% and 8.5% per annum respectively. The total annual interest from these accounts is 550 Rs. Equal amounts has been deposited in 5% and 8% saving accounts. Find amount deposited in each of the three accounts with the help of matrices.
- A coin is biased so that the head is 3 times as likely to occur as tail, if the coin is tossed three times, find the probability distribution of number of tails.
- From a pack of 52 cards, a card is lost, from the remaining 51 cards, two cards are drawn at random (without replacement) and are found to be both diamonds. What is the probability that the lost card was a card of heart?
- A man is known to speak the truth 3 out of 4 times. He throws a die and reports that It is a six. Find the probability that it is actually a six.
- X is taking up subject mathematics, Physics and Chemistry in the examination. His probabilities of getting grade A in these subjects are 0.2, 0.3 and 0.5 respectively. Find the probability that he gets.
(i) Grade A in all objects. (ii) Grade A in no subjects. (iii) Grade A in two subjects.
- Find the probability of getting 5 exactly twice in 7 throws of a die.
- How many times must a man toss a fair coin so that the probability of having at least one head is more than 90%?
- A dietician wishes to mix two types of foods in such a way that vitamin contents of the mixture contain at least 8 unit of Vitamin A and 10 units of Vitamin C. Food I contains 2 units per kg. of Vitamin A and 1 unit per kg. of vitamin C. Food II contains 1 unit per kg. of vitamin A and 2 unit per kg. of Vitamin C. It cost Rs. 50 per Kg. to purchase food I and Rs. 70 per Kg. to purchase food II. Formulate this problem as a LPP to minimize the cost of such a mixture of food.
- Maximise $Z = x + 2y$, subject to the constraints:
 $x \geq 3$, $x + y \geq 5$, $x + 2y \geq 6$, $y \geq 0$.

Subject: Informatics Practices - XII

Chapters:

- 1. Computer Networks**
- 2. Open Source Concepts**
- 3. IT Applications**

1. Define a network? Why is it needed?
2. What is an IP Address? How is it different from MAC address?
3. What is a domain name? How it is alternatively known?
4. What is the difference between MAN & WAN?
5. What is meant by topology? What are the factors that must be considered before making a choice for the topology?
6. Give two advantages & two disadvantages of :-
(a) Star (b) Tree (c) Bus
7. Define the following :-
(a) Hub (c) Firewall (b) Switch (e) Bluetooth
8. What is snooping?
9. What is eavesdropping?
Define Internet? Name some services offered by the Internet.
10. TYPE B: SHORT ANSWER QUESTION
11. What do you understand by Domain Name Resolution ?
12. What are communication channels ? Discuss various communication channels available for network?
13. Write some advantages and disadvantages of the following?
(a) Optical Fiber (c) Co-axial cable (e) Twisted Pair wire
(b) Radio Waves (d) Microwave (f) Satellites
14. Discuss & compare various types of networks ?
15. Compare and contrast :-
(a) Star & Bus topologies
(b) Star & Tree topologies
(c) Bus & Ring topologies
16. What are hubs ? How it is different from switch?
17. Briefly discuss the function of :-
(a) Repeater (b) Gateway (c) Switch
18. What do you mean by system Security? What are common threats to network security?
19. What are Denial of Services (DoS) Attacks?
20. How can you prevent yourself from various threats of network security ?
21. Expand the terms: OSI, FLOSS, FSF, GNU, GPL, W3C, and OSS.
22. Define the following-
(a) Freeware (b) Shareware. (c) FLOSS (d) LAMP
23. What for are these software used?
(a) Linux (b) Mozilla Firefox (c) PHP (e) Apache (f) MySQL.
24. What is openoffice.org?
25. Which of the following are open standards?
.DOC .SVG .TTF .JPEG
26. What is a font? What is OTF?
27. Define: (a) ODF (b) Ogg Vorbis (c) TTF
28. What is Unicode? What is ISCII?

TYPE B: SHORT ANSWER QUESTION

29. Compare the followings-
 - (a) Free Software & Open source software
 - (b) Proprietary software & free software
 - (c) Static & dynamic fonts
30. What characteristics make a standard an open standard? Discuss some advantages of Open standard over Proprietary standard.
31. How phonetic text entry is different from key map based text entry?
32. Define the following-
 - b) E-Governance b) E-Business c) E-Learning
33. List any five web portal with their purposes involved in E-Governance.
34. List any five web portal with their purposes involved in E-Commerce or Business.
35. List any five web portal with their purposes involved in E-Learning
36. Define the followings-
 1. Entity 2. Attribute 3. Relation 4. Relationship
37. How has society benefitted from e-governance? What are the limitations of e-governance?
38. How has society benefitted for e-business? Discuss its limitations?
39. How has society benefitted for e-learning? Discuss its societal impacts?
40. Discuss some popular e-business types incorporated through e-business systems.
41. What is meant by E-governance Model? How E-Government interacts Citizen, Business and Government.
42. What do mean by Front-end and Back-end?
43. What is GUI Interface? Discuss some guidelines be followed during design of Interface.
44. What do you mean by DDLC? What are the major steps followed during design of a Database?
45. What is ER-Diagram? How it helps you to model the database?
46. What types of relationship are found among entities? Discuss with examples.

Subject: Business Studies – XII **Class XII (2018-19)**

1. "Coordination is not a separate function of management; it is the essence of management". Explain with the help of a suitable example.
2. "In the absence of management, the productive resources will remain remain resources and shall never become production." Explain the importance of management in the light of above statement.
3. XYZ power Ltd. set up a factory for manufacturing solar lanterns in a remote village as there was a reliable supply of electricity in the rural areas. The revenues earned by the company were sufficient to cover the cost and the risks. The demand of lanterns was increasing day by day. So the company decided to increase production of generate higher scales sales. For this they decide to employ the people from the nearby villages as a very few job opportunities available in the areas. The Co. also decides to open schools and crèches for children of its employees.
 - A) Identify and explain the objectives of management discussed above.
 - B) State any two values which the Co. wanted to communicate to the society.
4. The Top management of the company has decided to modify its existing product in the market due to decreasing sales. You can imagine any product about which you are familiar. What steps should each level of management take to give effective to this decision?
5. Raman joins an IT firm as a system analyst after completing his masters in computer science. As the nature of his work demands he has to work in very close coordination with

all the departmental heads in the firm, very soon Raman realizes that each departmental head has own individual style of working. They differ greatly in their day to day approach to work. They tend to deal with a given situation, an issue or a problem through a combination of their own experiences, creativity, imagination, initiative and innovation in the context of the above case identify and explain the nature of management highlighted in the above paragraph.

6. The principles of Taylor and Fayol are mutually complimentary. One believed that management should share the gains with the workers while the other suggested that employee compensation should depend on the earning capacity of the company and should give them a reasonable standard of living. Identify and explain the principles of Fayol and Taylor referred in the paragraph.
7. What did Henry Fayol mean by Unity of command? How does it differ from unity of direction.
8. What is the principle of Scalar chain? Explain briefly the utility of Gang Plank with the help of diagram.
9. Pawan is working as a production manager in CFL Ltd. there is no class conflict between management and workers the working conditions are very good. The company earning huge profit as a policy of management. share the profit earned with the workers because they believe in the prosperity of employees.
 - a) State the principle of management described in the above paragraph.
10. ABC Ltd. is producing electricity from domestic garbage there is almost equal division of work and responsibilities between workers and the management. the management even takes workers in to confidence before taking important decisions all the workers are satisfied as the behavior of management is very good
 - a) state the principle of management described the above paragraph.
11. Explain the importance of business environment.
12. The sales of jewelers were affected adversely after the demonetization of currency notes of the denomination of Rs 500 and 1000 in November 2016. Identify the dimension of business environment in this case.
13. Briefly explain any five impacts of government policy changes in business and industry.
14. What is demonetization explain its various features.
15. What are the various relives to the consumers.
16. Who can file a complaint under the consumer protection act 1986 .
17. Which consumer right gives the business firm's freedom to setup their own consumer services and grievance cell and also explain any three rights of consumer.
18. Explain any four functions of consumer organizations and non government organisations for protecting and promoting the interest of consumers.
19. State any six responsibilities of consumer which should be kept in mind while purchasing the goods.
20. Give the definition of consumer according to the consumer protection act 1986 and also explain the three tier agencies according to the Consumer Protection Act 1986.

CBSE Project work:

Topics : Principles of Management, Stock Exchange, Business Environment, Marketing Management

Read the Business page of a National Daily Newspaper (eg. The Times of India, Hindustan Times etc.) and a Financial Newspaper (eg. Economic Times, Financial Express, Hindu Business line,

Business Standard etc.). Paste at least 20 interesting news articles from them in your Business Studies notebook, accompanied by a 75-100 words summary of the articles in your own words, along with the date and source. Underline key points in each of the articles pasted.

II. Make a project on any one of the following topics in your own (neat) handwriting: At least 750 words with related pictures (coloured printouts are not required). File and sheets used should be eco-friendly (no plastic please), preferably reused-recycled paper.

- i) The profile of a successful Indian businesswoman. (Topic Business Environment)
- ii) A study of competition in business by choosing two or more rivals in the Indian market, analyzing their relative strengths and weaknesses. (Financial Market)
- iii) A case study on a thriving fast food restaurant or retail outlet (grocery store/ departmental store etc.) in your locality. What makes it a successful business? (Business Environment)

Subject: Political Science – XII

Class XII (2018-19)

1. Discuss in detail the event related to partition of India
2. Explain any three challenges for nation building faced by India
3. How did the state of Hyderabad become the part of Indian union after partition
4. Describe how the princely state of Manipur acceded to India
5. What was state reorganization act?
6. Explain briefly the policies of swatantra party
7. Describe the origin and split of communist party on India
8. What is dominant party system? Give an example
9. What do you know about din dayal upadhaya?
10. How was the planning commission of India set up? Mention its scope of work
11. What do you understand by green revolution
12. Give a brief assessment of planning and development in India?
13. What were the aims of first five year plan?
14. What were the major aims of 2nd five year plan?
15. What are the functions of planning commission?
16. Explain the role of planning in India's development
17. What is white revolution?

Subject: Economics

Class XII (2018-19)

Chapters-:

Introduction to Microeconomics, Consumer's equilibrium with Utility Analysis, Consumer's equilibrium with Indifference curve Analysis, National Income and its aggregates

Answer the following questions-:

1. Explain the law of diminishing marginal utility with the help of utility schedule.
2. What is a budget set? Explain what can lead to change in budget set.
3. Show the changes in the budget line resulting from changes in consumer's income when the prices of two goods remain constant.
4. State and explain the law of demand.
5. Explain whether these goods final or intermediate: a) Bread b) Machinery
6. Explain the concept of leakage and injection in circular flow? Give two examples?
7. State the precautions to be undertaken while estimating national income by expenditure method.
8. What is MRT? Explain with the help of numerical example
9. Assuming that no resource is equally efficient in production of all goods, name the curve which shows production potential of the economy. Explain giving reasons, its properties.
10. Calculate
 - (a) GDP_{MP} by income method
 - (b) NDP_{MP} by expenditure method
 - (c) Factor income to abroad

	(Rs in Crores)
i. Profits	400
ii. Wages and salaries	500
iii. Royalty	100
iv. Private final consumption expenditure	1200
v. Exports	40
vi. Compensation of employees	1500
vii. Government final consumption expenditure	1060
viii. GNP_{FC}	3500
ix. Net current transfers to rest of world	(-190)
x. Rent	300
xi. Interest	400
xii. Factor income from abroad	120
xiii. Net indirect taxes	250
xiv. Net domestic capital formation	650
xv. Gross fixed capital formation	700
xvi. Decrease in stock	(-) 50

10. Suppose consumer is consuming two goods whose prices are Rs. 3 and 4 respectively whereas their marginal rate of substitution is 4. Is consumer in equilibrium? If not what will a rational consumer do?

12. Calculate 'value of output' from the following data:

Items	Rs. in lakh
Net value added at factor cost	100
Intermediate consumption	75
Excise duty	20
Subsidy	5
Depreciation	10

13. Calculate NI by (i) income method (ii) expenditure method:

	Rs. in Crores
Net Domestic Capital formation	360
Interest	200
Rent	300
Private Final consumption expenditure	1300
Govt. final consumption expenditure	730
Net Exports	- 20
Net Indirect Taxes	70
Net Current transfers from Row	80
Consumption of fixed capital	60
NFIA	- 50
Profits	600
Compensation of Employees	1200

14. What is a budget set? Explain what can lead to change in budget set. Differentiate between budget set and budget line.

15. Why do economic problems arise? Explain the central problem of allocation of resources in an economy.

16. Giving reasons, explain how the following are treated in estimating national income.

- i) Purchase of truck to carry goods by a production unit
- ii) Payment of income tax by a production unit
- iii) Services rendered by family members to each other.

17. Large number of technical training institutions have been started by the government. State its economic value in the context of production possibilities frontier.

18. Assuming that a consumer consumes only two goods, explain the conditions of consumer's equilibrium with the help of Utility Analysis.

19. State the conditions of consumer's equilibrium in the Indifference Curve Analysis and explain the rationale behind these conditions.

20. What are non-monetary exchanges? Give an example. Explain their impact on use of gross domestic product as an index of welfare of the people.

SUBJECT : PSYCHOLOGY - XII

CLASS: XII

PROJECT:

Chapter- Self and Personality

Select five persons whom you most admire, either from real life or from history. Collect information about their contributions in their respective fields and identify the characteristics in their personality that have impressed you. Do you find any similarities amongst them? Prepare a comparative report.

QUESTIONS:

Chapter- Variations in Psychological Attributes

1. Define the term assessment. What are the two kinds of assessment?
2. How is 'aptitude' different from 'interest' and 'intelligence'? How is aptitude measured?
3. " Any intellectual activity involves the independent functioning of three neurological systems". Explain with reference to PASS model.
4. Discuss the five theories of intelligence that follow psychometric approach.
5. To what extent is our intelligence the result of heredity (nature) and environment (nurture)? Discuss.

Chapter- Self and Personality

1. What is meant by delay of gratification? Why is it considered important for adult development?
2. How does Freud explain the structure of personality?
3. What is meant by structured personality tests? Which are the two most widely used structured personality tests?
4. How would Horney's explanation of depression be different from that of Alfred Adler?
5. Discuss the main observational methods used in personality assessment. What problems do we face in using these methods?

Physical Education - XII

1. Select any game/sport of your choice (Basketball, Volleyball & Football) write the following details in your practical copy:

- a. History of the game/sport
- b. Latest General Rules & regulations
- c. Dimensions/ Measurement of play fields and specifications of sports equipment
- d. Fundamental Skills of the game/sport
- e. Related sports terminologies
- f. Important tournaments
- g. Sports Personalities

2. Draw a neat diagram of the field/court of your game/sport with all the dimensions.

3. Write about any 7 yogic asana and their steps by step performance along with the benefits of each. Paste good pictures of the asana.

4. Mention the administration of AAHPER youth fitness test including the purpose, equipments required procedure and scoring of all the test items. (Take the help from the text book).

5. Write about the techniques and measurements of the following track and field events:

- a) Shot put b) Long jump c) 100 meters d) 200 meters e) 4*100 meter relay

6. Draw a layout of Standard track of 400 meters stating all the dimensions and markings as per the IAAF.

Painting - XII

Practical:

1. Still life 4 in oil pastels
2. Landscape 2 in poster colours,
3. One painting of a painter from the syllabus book