

ENGLISH

General Instructions:

1. **Revise the lessons, poems and writing skills done during online sessions.**
2. **Read the newspaper daily with special emphasis on school based reports, advertisements, posters and articles. Pay attention to the language used.**
3. **Attempt the following questions in English Registers.**
4. **Date of submission is 7th July 2022.**

READING

Q1. Read the passage and on the basis of your understanding of the passage answer the questions given below:

LIFE BEYOND ACADEMICS

1. Academics has always been an essential part of human development. It prepares us to survive in the outside world and establish an identity of our own. But, is an individual's development restricted to merely academics? In India, from an early age, we have been taught that education is limited to the boundaries of academics only; the idea of getting out into the field, for gaining practical experience, is always considered a hoax. This has hindered students' development. But the truth is that education represents a considerably broader field than we know of it. Our teaching, from the basics, has been focused on getting good grades and job offers, rather than being creative and unique.

2. In the 21st century, the pure academic type of education is slowly paving way for a whole new type. The paradigm shift in the whole education system is evident. People have now come to understand that education is a 360^o activity that should focus on students' overall development, rather than restricting him/her to the classroom.

3. Co-curricular activities that take place outside the classroom but reinforce or supplement classroom curriculum, in some way, have become a point of focus today. These activities help in the growth of the child, in more than one way. Participating in such activities helps youngsters grow mentally, socially and individually. Intellectual development of a student is developed in the classroom, but for the aesthetic development such as team- building, character- building, and physical growth, students must step out into the outside world. For instance, if a student is a part of school football team, he/ she will learn team- work and coordination, in a practical manner, which cannot be taught in the class.

4. Similarly, in colleges and institutions, there is a need for practical exposure so that the students can experience the actual working of an industry. For example, taking a student to a manufacturing firm will give him/ her the real insight and better learning of the industry.

Catering to this change, most professional colleges including B schools, have started providing practical exposure to students through regular guest lectures, industrial visits, conferences, seminars, cultural festivals, and so on. With industry visits, students are able to better identify their prospective areas of work in the overall organizational function. Moreover, they help enhance interpersonal skills and communication techniques. In addition, guest lectures are equally important for all – round development of students. It is a great way for students to gain maximum exposure, as guest speakers talk about their real- life experiences and not what is there in the text books.

5. Through such events, students are made to participate and coordinate different events wherein, they get to know how exactly things are managed. Classroom teaching provides the foundation, and co-curricular or extra- curricular activities provide practical exposure and opportunities to implement what students learn in the classroom. This helps in developing the overall personality of the students, inculcating various soft – skills in them, which otherwise are difficult to teach. Clearly, life beyond academics creates creative and empowered professionals.

1. Answer the following questions briefly:

- a. From earlier times what has not been the focus of education?
- b. Where should students go for aesthetic development?
- c. What kind of co- curricular activities have become points of focus today?
- d. What will give children a better insight into industry?
- e. Why are soft skills difficult to teach in the classroom?
- f. Pick out the words/phrases from the passage which are similar in meaning to the following:
 - i. untrue (Para 1)
 - ii. cooperative effort (Para 3)

Q2. Read the passage and on the basis of your understanding of the passage answer the questions given below:

1. India has never subscribed to the doctrine of militarism and war in her history. Here war was never treated as an ideal. It was only tolerated as unavoidable and inevitable, and all attempts were made to check it and bring it under control. In spite of the frequency of wars in ancient India, in spite of highly developed military organization, techniques of war and imperialism, and in spite of the open justification of war as national policy, the heart of India loved pacifism as an ideal capable of realization. India’s symbolic role was that of a peacemaker and it sincerely pinned its faith on the principle of “Live and let live”. At least philosophically, India’s intelligence supported the cause of peace not only in national affairs but in international affairs also. All the great seers of the yore visualized the unity of life, permeating all beings, animate or inanimate, which ruled out killing and suicidal wars.

2. This doctrine of philosophical pacifism was practiced by ancient Aryans is, no doubt, a question of controversial nature. Certainly, the great Indian teachers and savants stuck to this doctrine tenaciously and in their personal life they translated it into practice and preached it to masses and even to princes of military classes.

3. Another culture of those times, the existence of which has been proved by the excavations of Mohanjo-Daro, also enunciated the doctrine of pacifism and friendship to all. Strangely enough, the Indus Valley civilization has revealed no fortification and very few weapons.

4. Ahinsa or the doctrine of non-violence in thought, speech and action assumed a gigantic importance in the Buddhist and Jain period. By a constant practice of this virtue, man becomes unassailable by even wild beasts, who forgot their ferocity the moment they entered the circumference of his magnetic influence. The monks and nuns of these churches were apostles of peace, who reached every nook and corner of the world and delivered the message of love to war-weary humanity. The greatest votary was the royal monk Ashoka, who in reality was responsible for transforming Ahimsa as an act of personal virtue, to Ahimsa as an act of national virtue.

5. Many a historian recounting the causes of the downfall of the Mauryas, hold the pacific policy of Ashoka which had eschewed the aggressive militarism of his predecessors, responsible for an early decay of the military strength of the state and its consequent disintegration, leading to the rise of Sungas, Kanvas and Andhras. But, in reality the fault lies with the weak successors of Ashoka, who could not wield the weapon of non-violence with a skill and efficiency which required the strength of a spiritual giant like Ashoka. They failed due to their subjective weakness. Pacifism itself was no cause of their failure.

6. Besides the foregoing philosophical and religious school of thought, even many political authorities gave their unqualified support to the cause of pacifisms. They recognized the right of rivals to exist, not mainly as enemies, but as collaborators in the building of a civilization operation. Thus, for centuries, in the pre-Mauryan India, scores of small independent republics existed and flourished without coming in clash with each other.

7. With regard to Kautilya, the much-maligned militarist and the so-called Machiavelli of India, He thinks that the object of diplomacy is to avoid war.

8. The Mahabharata observes in the connection, "A wise man should be content with what can be obtained by the expedients of conciliation, gift and dissention." It denounces the warring world of men by comparing it to a dog-kennel. "First there comes the wagging of tails, then turning of one round to other, then the show of teeth, then the roaring and then comes the commencement of the fights. It is the same with men; there is no difference whatever." Yajnavalkya adds, "War is the last expedient to be used when all others have failed." Likewise, Sri Krishna who's Bhagwat Gita has been styled by some as 'a song of the battle', should not be considered out and out militarist. When all the three expedients were exhausted, then alone the fourth was resorted to.

9. All possible avenues of peace such as negotiation, conciliation through conference, meditation and so on, were explored before the war was resorted to. This proves that the heart of ancient India was sound and it longed for peace, although war also was not treated as an anathema, which was to be avoided as far as possible.

2.1 Answer the following questions briefly:

- (i) How was war treated in India?
- (ii) Describe India's preparedness for war in spite of their belief in Pacifism.
- (iii) How did the Aryans practice the Doctrine of Pacifism?
- (iv) What is Ahinsa?
- (v) What is the meaning of co-existence with rivals?
- (vi) Why should Bhagavat Gita not be considered as "A song of the battle"?

2.2 Answer any three of the following questions in 30-40 words:

- (i) What kind of unity did all the seers visualize?
- (ii) By some, Ashoka was considered as the cause of the downfall of the Mauryas. Do you agree? Give reasons for your answer.
- (iii) Which options were explored by Sri Krishna before resorting to war?
- (iv) Throw some light on the thinking of Kautilya regarding war.

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

- (i) express in definite and clear terms (para 3)
- (ii) defensive wall (para 3)
- (iii) the beginning (para 8)

**Q3. Choose an interesting topic for the project work to be done in Term 2. Listen to podcasts/
interviews/ radio or T.V documentary on the same topic.**

WRITING

1. Choose your favourite scene from any one of the chapters given below and make a comic strip on the same, on A3 size sheet:
 - The last Lesson
 - Lost Spring
 - My Mother at Sixty-Six
 - The Third Level
2. Prepare an attractive poster in not more than 50 words to create awareness among people, highlighting the importance of eating healthy food to lead a happy life.
3. You are Raman/ Ritu studying in Bharat School, Delhi. The road leading to your school is very congested and full of potholes. Students and parents are often caught in traffic jam. In spite of several representations, the government has not done anything to improve the condition of the road. Write a letter to the Editor of Times of India drawing the attention of the government towards this problem. (120-150 words).
4. You feel that India will face a severe water crisis by the year 2020. Write a letter to the Editor of The National Daily expressing your concern about it and requesting individuals and authorities to take steps to avert this crisis. You are Shalini/ Shaheen. (120-150 words).
5. Taking selfies has become a rage and is a global phenomenon. It has cost us several lives and also immortalised several moments. Write an article for a National Daily on the trend of taking selfies and its impact on people. You are Aditi/ Aditya. (150-200 words).
6. You are Karan / Kirti of L.M. Memorial Public School, Dwarka. Your school has adopted a village as a social responsibility. Students are being taken to teach the children of that village on a regular basis. Write a report, for your school magazine, on the various other programmes organized there in 150-200 words.

LITERATURE

1. Attempt the questions given below in 120-150 words each.

- a) Justify the title 'The Last Lesson'
- b) How is Mukesh's attitude towards his situation different from that of Saheb? Why?
- c) 'Imagination is a temporary refuge from reality'. Explain with reference to the chapter 'The Third Level'.
- d) In today's fast paced life, sometimes children are forced to neglect their ageing parents. With reference to 'My Mother at Sixty-Six', what do you think children can do to have an involved and inclusive relationship with their elderly parents?

ECONOMICS

Date of submission: 7th July 2022

Make a project to analyse and evaluate real world economic scenarios using theoretical constructs and arguments. The project should be of 3,500-4,000 words (excluding diagrams & graphs) and should be hand-written. It will be an independent, self-directed piece of study.

Scope of the project:

Learners may work upon the following lines as a suggested below:

- A. Choose a title/topic
- B. Collection of the research material/data
- C. Organization of material/data
- D. Present material/data
- E. Analysing the material/data for conclusion
- F. Draw the relevant conclusion
- G. Presentation of the Project Work

Expected Checklist:

- Introduction of topic/title
- Identifying the causes, consequences and/or remedies
- Various stakeholders and effect on each of them
- Advantages and disadvantages of situations or issues identified
- Short-term and long-term implications of economic strategies suggested in the course of research
- Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file
- Presentation and writing that is succinct and coherent in project file
- Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.

Suggested topics

- Micro and Small scale Industries
- Food Supply Channel in India
- Contemporary Employment situation in India
- Disinvestment policy of the government
- Goods and Services Tax Act and its Impact on GDP
- Health Expenditure (of any state)
- Human Development Index
- Inclusive Growth Strategy
- Self-help group
- Trends in Credit availability in India
- Monetary policy committee and its functions
- Role of RBI in Control of Credit
- Government Budget & its Components
- Trends in budgetary condition of India
- Exchange Rate determination – Methods and Techniques
- Currency War – reasons and repercussions
- Livestock – Backbone of Rural India
- Alternate fuel – types and importance
- Sarwa Siksha Abhiyan – Cost Ratio Benefits
- Golden Quadrilateral- Cost ratio benefit
- Minimum Support Prices (**any other topic as discussed in class**)

ACCOUNTANCY

Date of submission: **8th July 2022**

Students are supposed to make a Project File containing 3 projects:-

- A. COMPREHENSIVE PROJECT- comprising of a) Case Study b) Journal c) Ledger d) Trial balance e) Financial Statements f) Ratio analysis
- B. SPECIFIC PROJECT I: - Based on Cash flow statement.
- C. SPECIFIC PROJECT II: - Based on Segment reporting.

Following essentials are required to be fulfilled for project preparation and submission.

1. Total length of the project will be of 25 to 30 pages.
2. Project should be neatly handwritten and presentable with page number marked.
3. Project report should be developed in the following sequence-
 - Cover page should include the title of the Project, student information, school and year.
 - List of contents.
 - Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).
 - Introduction.
 - Topic with suitable heading.
 - Planning and activities done during the project, if any.
 - Analysis, interpretation and presentation of information.
 - Conclusions (summarized suggestions or findings, future scope of study).

- Appendix.

BUSINESS STUDIES

Date of submission: 6th July 2022

Project Work in Business Studies for Class XII

PROJECT ONE: MARKETING

Students are required to choose any one product:

1. Toothpaste 2. Noodles 3. Shampoo 4. Bathing soap 5. Washing detergent 6. Washing powder 7. Lipstick 8. Moisturiser 9. Shoe polish 10. Pen 11. Shoes 12. Hair dye 13. Mobile 14. Chocolate 15. Sauces/ketchup 16. Ready soups 17. Body spray 18. Fairness cream 19. Hair oil 20. Roasted Snacks 21. Jeans 22. Pickles 23. Squashes 24. Jams 25. Salt 26. Bread 27. Butter 28. Shaving cream 29. Razor 30. Cheese spreads 31. Refrigerator 32. Tiffin wallah 33. Learning toys 34. Coffee or any other products discussed in the class.

Identified product should not be items whose consumption /use is discouraged by the society and government like alcohol products/pan masala and tobacco products, etc.

Make a project on the identified product/ service keeping in mind the following.

1. Why have they selected this product/service?
2. Find out '5' competitive brands that exist in the market.
3. What permission and licences would be required to make the product?
4. What are your competitors Unique Selling Proposition. [U.S.P.]?
5. Does your product have any range give details?
6. What is the name of your product?
7. Enlist its features.
8. Draw the 'Label' of your product.
9. Draw a logo for your product.
10. Draft a tag line.
11. What is the selling price of your competitor's product? (i) Selling price to consumer (ii) Selling price to retailer (iii) Selling price to wholesaler What is the profit margin in percentage to the Manufacturer, Wholesaler and Retailer?
12. How will your product be packed?
13. Which channel of distribution are you going to use? Give reasons for selection?
14. Decisions related of warehousing, state reasons.
15. What is going to be your selling price? (i) To consumer (ii) To retailer (iii) To wholesaler
16. List 5 ways of promoting your product.
17. Any schemes for (i) The wholesaler(ii) The retailer (iii) The consumer
18. What is going to be your 'U.S.P'?

19. What means of transport you will use and why?
 20. Draft a social message for your label.
 21. What cost effective techniques will you follow for your product.
 22. What cost effective techniques will you follow for your promotion plan. At this stage the students will realise the importance of the concept of marketing mix and the necessary decision regarding the four P's of marketing.
- 1.PRODUCT 2. PLACE 3. PRICE 4. PROMOTION

On the basis of the work done by the students the project report should include the following:

1. Type of product /service identified and the (consumer/industries) process involve there in.
2. Brand name and the product.
3. Range of the product.
4. Identification mark or logo
5. Tagline.
6. Labelling and packaging.
7. Price of the product and basis of price fixation.
8. Selected channels of distribution and reasons thereof.
9. Decisions related to transportation and warehousing. State reasons
10. Promotional techniques used and starting reasons for deciding the particular technique.
11. Grading and standardisation.

PROJECT TWO: PRINCIPLES OF MANAGEMENT

The students are required to visit any one of the following:

1. A departmental store.
2. An Industrial unit.
3. A fast food outlet.
4. Any other organisation approved by the teacher.

They are required to observe the application of the general Principles of management advocated by Fayol. Fayol's principles 1. Division of work. 2. Unity of command. 3. Unity of direction. 4. Scalar chain 5. Espirit de corps 6. Fair remuneration to all. 7. Order. 8. Equity. 9. Discipline 10. Subordination of individual interest to general interest. 11. Initiative. 12. Centralisation and decentralisation. 13. Stability of tenure. 14. Authority and Responsibility

OR

They may enquire into the application of scientific management techniques by F.W. Taylor in the unit visited.

Scientific techniques of management.

1. Functional foremanship.
2. Standardisation and simplification of work.
3. Method study.
4. Motion Study.
5. Time Study.
6. Fatigue Study
7. Differential piece rate plan

Each student to prepare and submit his/her allotted project report.

Following essentials are required to be fulfilled for project preparation and submission.

1. Total length of the project will be of 25 to 30 pages.
2. Project should be neatly handwritten and presentable with page number marked.
3. Project report should be developed in the following sequence-
 - Cover page should include the title of the Project, student information, school and year.
 - List of contents.
 - Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped).
 - Introduction.
 - Topic with suitable heading.
 - Planning and activities done during the project, if any.
 - Observations and findings of the visit.
 - Photographs (if any)
 - Analysis, interpretation and presentation of information.
 - Conclusions (summarized suggestions or findings, future scope of study).
 - Appendix.

MATHEMATICS

Complete the following assignment in your Mathematics notebook

Date of submission: 8th July 2022

1. If A is any square matrix of order 3×3 such that $|A| = 3$, then the value of $|\text{adj}A|$ is ?
2. If A is a 3×3 invertible matrix, then what will be the value of k if $\det(A^{-1}) = (\det A)^k$.
3. Determine the value of the constant 'k' so that the function

$$f(x) = \begin{cases} \frac{kx}{|x|}, & X < 0 \\ 3, & X \geq 0 \end{cases}$$
 is continuous at $x = 0$.
4. Write a 2×2 matrix which is both symmetric and skew-symmetric.
5. Suppose P and Q are two different matrices of order $3 \times n$ and $n \times p$, then the order of the matrix $P \times Q$ is?
6. If the function $f(x) = \begin{cases} \frac{x^2-1}{x-1}, & x \neq 0 \\ k, & x = 0 \end{cases}$
 Is given to be continuous at $x = 0$, then the value of k is?
7. Differentiate: $\sin^2(x^2)$ w.r.t x^2
8. If $A = \begin{bmatrix} 2 & 3 \\ 5 & -2 \end{bmatrix}$ be such that $A^{-1} = kA$, then find the value of k.
9. If $A^{-1} = \begin{bmatrix} 1 & 2 \\ 3 & -1 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 3 \\ -1 & 1 \end{bmatrix}$, write the value of $\det(AB)$.

11. If $A = \begin{bmatrix} 2 & 0 & 1 \\ 2 & 1 & 3 \\ 1 & -1 & 0 \end{bmatrix}$ find $A^2 - 5A + 4I$ and hence find a matrix X such that $A^2 - 5A + 4I + X = O$

12. Find the maximum value of $\begin{vmatrix} 1 & 1 & 1 \\ 1 & 1 + \sin A & 1 \\ 1 & 1 & 1 + \cos A \end{vmatrix}$

13. If A is a square matrix such that $A^2 = I$, then find the simplified value of $(A - I)^3 + (A + I)^3 - 7A$.

14. Show that all the diagonal elements of a skew symmetric matrix are zero.

15. If $f(x) = \begin{vmatrix} a & -1 & 0 \\ ax & a & -1 \\ ax^2 & ax & a \end{vmatrix}$, using properties of determinants find the value of $f(2x) - f(x)$.

16. If $x = a \cos \theta + b \sin \theta, y = a \sin \theta - b \cos \theta$, show that $y^2 \cdot y'' - x \cdot y' + y = 0$.

17. Show that the function $f : \mathbb{R} \rightarrow \mathbb{R}$ defined by $f(x) = \frac{x}{x^2 + 1}$ is neither one-one nor onto.

18. If $(x - y) \cdot e^{\frac{x}{x-y}} = a$, prove that $y \cdot y' + x = 2y$.

19. If $x = a \sin 2t (1 + \cos 2t)$ and $y = b \cos 2t (1 - \cos 2t)$, find the values of dy/dx at $t = \pi/3$ and $t = \pi/4$

20. If $y = x^x$, then prove that $\frac{d^2y}{dx^2} - \frac{1}{y} \cdot \left(\frac{dy}{dx}\right)^2 - \frac{y}{x} = 0$

21. If $x = a(\cos 2\theta + 2\theta \sin 2\theta)$ and $y = a(\sin 2\theta - 2\theta \cos 2\theta)$. Find $\frac{d^2y}{dx^2}$ at $\theta = \pi/8$

22. If $y = \log(1 + t^2 + t^4)$ and $x = \tan^{-1} t$, find $\frac{d^2y}{dx^2}$

23. If $\sin y = x \cos(a + y)$, then show that $y_1 = \frac{\cos^2(a+y)}{\cos a}$

Also, show that $y_1 = \cos a$, when $x = 0$.

24. If $y = \frac{x \cos^{-1} x}{\sqrt{1-x^2}} - \log \sqrt{1-x^2}$ then prove that $y_1 = \frac{\cos^{-1} x}{(1-x^2)^{3/2}}$

25. If $x^m \cdot y^n = (x + y)^{m+n}$. then prove that $y'' = 0$

26. Given $A = \begin{bmatrix} 1 & 2 & 1 \\ 2 & 3 & 2 \\ 5 & 0 & 4 \end{bmatrix}$, $B^{-1} = \begin{bmatrix} 1 & 3 & 4 \\ 1 & 4 & 3 \\ 1 & 3 & 3 \end{bmatrix}$, compute $(AB)^{-1}$

27. If $y = \sin(\sin x)$, prove that $y'' + \tan x \cdot y' + y \cdot \cos^2 x = 0$

28. Differentiate the function $(\sin x)^x + \sin^{-1} \sqrt{x}$ with respect to x .

29. Let $A = \{x \in \mathbb{Z} : 0 \leq x \leq 12\}$. Show that

$R = \{(a, b) : (a, b) \in A, |a - b| \text{ is divisible by } 4\}$ is an equivalence relation.

Find the set of all elements related to 1. Also write the equivalence class [2].

30. If $y = \log(x + \sqrt{x^2 + a^2})$,

Then prove that $(x^2 + a^2)y_2 + x \cdot y_1 = 0$

COMPUTER SCIENCE

Date of submission: 8th July 2022

GENERAL INSTRUCTIONS:

- Code for the following programs to be printed on A4 size sheets along with the snapshot of the output
 - Font for the Code: Courier New: Font-size – 12
 - Only one program and its output to be printed on one A4 size sheet
1. Write a program to check if the given number (positive Integer) is a palindrome.
 2. Write a program to reverse a given string
 - a. Using Loops in Python
 - b. Using Slicing Method in Python
 3. Write a program to remove all odd numbers from a given list (without using Python in-built functions)
 4. Write a program to find and display the sum of all the integers (positive/negative) that have 3 in the units place in a tuple.
 5. Write a random number generator that generates random numbers between 1 and 6 (simulates a dice).
 6. Write a program in Python to use standard library- Math and perform the following-
 - a. Find the Area of a circle
 - b. Find the square root of a given number
 7. Write program in Python to find the area of- circle, square, rectangle, trapezium, sphere and cylinder with the help of user defined functions
 8. Write a menu-driven program in Python to create a calculator with the help of user defined functions
 9. Write a user defined function that takes a given number as an input argument and returns the Fibonacci series upto the given number from the function.
 10. Write a Python program to read a text file line by line and display each word separated by a '#’.
 11. Write a Python program to read a text file and display the number of vowels/consonants/uppercase/lowercase characters in the file
 12. Write a Python program to read a text file and display the total word count of the file.
 13. Write a Python program to read a text file and display the count of the occurrences of the word- ‘the’, ‘an’, ‘this’ (case-sensitive)

PHYSICAL EDUCATION

The following practicals should be written in Practical/ Record file. Date of submission:
13th July 2022

Record File shall include:

Practical-1: Fitness tests administration for all items.

Practical-2: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.

Practical-3: Procedure for administering Senior Citizen Fitness Test for 5 elderly family members.

Practical-4: Any one game of your choice out of the list above. Labelled diagram of field & equipment (Rules, Terminologies & Skills).

To be done in the Notebook:

Q1: What is knock out tournament? Explain different types of knock-out tournaments. Draw a fixture of 21 teams on knock-out basis.

Q2: Define league tournament. Draw a fixture of nine (9) teams on the basis of league tournament using cyclic method. Explain British method to declare the winner.

Q3: What do you mean by balanced diet? Explain the factors which affect the balanced diet.

Q4: Explain the nutritive and non-nutritive components of diet.

Q5: Which are the Asanas practiced for preventing Asthma? Write in detail about any two of them.

Q6: What are the causes of back pain? Explain the procedure, benefits and contra-indications of any two asanas recommended to cure back pain.

Q7: Define the term Disability and also explain the types of disability.

Q8: Describe five types of disorders with their symptoms and causes.