ENGLISH CORE

Q1. Read the passage given below:

Cholesterol is a waxy substance that is present in our blood. It's an important component of our cell walls and other tissues, but is thought to be harmful in excess. It can lead to blockages caused by plaque formation in the heart's arteries, causing various heart diseases and even heart attacks. Such blockages can also happen in arteries in the legs, or in the brain.

Cholesterol is produced in the liver, and the amount produced is influenced by our genes. The food we consume, also has an effect on cholesterol levels. Fatty foods, especially those high in saturated fats, and food high in simple sugars such as cold drinks increase cholesterol levels. Lack of physical activity and exercise also lead to elevated levels. We can reduce or control cholesterol levels by following a heart-healthy lifestyle, which must include regular physical activity-at least 30 minutes daily-and a diet high in fruits and vegetables and low in saturated fat.

Statins are the group of drugs most recommended for those with high cholesterol. For your doctor to decide when you should start taking them will depend on your overall clinical picture, not just your cholesterol levels. In general, if you are diagnosed with heart disease and diabetes, you may need to take them. Also, if a test shows your LDL (low density lipoprotein) cholesterol — the "bad" one-to be over 190, you are likely to be prescribed statins. Anyway, the doctor will decide medicines on a case-to-case basis. The ill effects of high cholesterol take time to show, and you may not realise it until it's a bit too late.

Cholesterol, by itself is important because it insulates nerve cells and membranes. Being a fatty substance, it does not dissolve in the blood and is packaged into protein. There is the "good" HDL (high density lipoprotein) cholesterol. "Bad" LDL cholesterol can stick to the smooth lining of blood vessels, where it is absorbed, while HDL mops up excess bad cholesterol and removes it from blood vessels.

Even moderate physical activity can help increase HDL cholesterol. Exercise five days a week, whether you are overweight or underweight. Always warm up, stretch and cool down-relax-before and after any workout to avoid injuries. Lifestyle changes-including exercise in your daily routine-is important for a fitter and healthier life.

A combination of diet, exercise and lifestyle modifications work best in producing long-lasting effects. For the obese, weight reduction is the key. Red yeast rice has been shown to be effective in lowering cholesterol. Olive oil, canola oil or other oils rich in mono unsaturated fatty acids can be used for cooking in order to reduce cholesterol through food. Some foods that help manage cholesterol levels well and must be included in your diet are oats, walnuts, almonds, kidney beans, green leafy vegetables, black grapes, green tea, flaxseed, wheatgrass, garlic, and fish.

Minimize common cholesterol-rich foods, such as red meat, egg yolk, butter, cheese, ghee, cream, full cream milk and margarine and avoid junk food.

(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—minimum four) and a format you consider suitable. Also supply an appropriate title to it.

(B) Write a summary of the passage in about 80 words.

Q2.Readthepassagegivenbelow:

Brian G Dyson, former President and CEO, Coca-Cola Enterprises, once said, "Imagine life as a game in which you are juggling five balls in the air namely- work, family, health, friends and spirit. You will soon understand that work is a rubber ball. If you drop it, it will bounce back. But the other four balls- family, health, friends and spirit- are made of glass. If you drop one of these, they will be irrevocably scuffed, marked, nicked, damaged or even shattered. They will never be the same. You must understand that and strive for balance in your life". Industries have realized the importance of his words. Organizations are setting up policies for maintaining a work-life balance. They are going in for innovative methods to keep their employees happy and satisfied, as it makes office a better place to work and also positively impact productivity. The Concept of Work-life balance (WLB) is not a new one. However with the changing pace of life and increase in stress levels negatively affecting the quality of work, many organizations have started thinking about the strategies for maintaining a work-life balance.

Experts say that there is a strong link between work-life balance policies and reduced absenteeism, increased productivity and job satisfaction. Other benefits include improved recruitment and retention rates with associated cost savings, a reduction in employee stress, greater levels of job satisfaction and loyalty and an improved corporate image. The work-life balance strategy offers a variety of ways to reduce stress levels and increase job satisfaction of the employees, the fundamental principle being designing activities around the topic of work and life. Companies are ready to do everything possible to keep their employees happy and are pampering them like never before with new policies like flexi timings, day care centers for kids, extended maternity leave, healthcare centers, medical insurance, fun and games at work, team outing, spas and gyms at office etc. Employees tend to feel motivated when they feel that the organisation is putting extra effort in providing a healthy balance between work and life. Motivated employees not only enhance productivity but also help create a positive work environment at office.

Work-life balance is a choice that an individual has to make. However, it is the organisation that needs to take an initiative to help the employees. Industry experts add that today, an employee is not looking at their employer just for job; they want the company to care for their work-life balance and their well-being. If a company can address these needs, in addition to providing great career opportunities, they can be very successful in providing job satisfaction to the employee. Companies are adopting new means to ensure that their employees get enough time to enjoy their personal life and spend time with family. Certain companies also support the policy of adopting a child by their employees. For this they have adoption leave policy, which allows the employees to avail eight weeks of paid leaves to spend some quality time with their newly adopted children. Another recent trend is the sabbatical. Certain companies encourage employees on completion of certain period at work to take a sabbatical for a year to rethink and re-plan his/her career or just to take a break, relax and rejuvenate. Firms are going for innovative practices to keep their employees happy. For example, a business solution providing company, promotes ROWE (Results Only Work Environment) culture within the organisation, negating the age-old dogma that equates physical presence with productivity and encouraging people to focus on working smarter rather than longer. Another attempt by the company to manage work-life balance is to encourage all employees to take a minimum of seven days annual leave in a year. It is the responsibility of the reporting managers or supervisors to ensure that the employees reporting to them take this leave. Some organisations have initiatives to provide timely assistance to the employees in a crisis situation rising out of financial or personal problems. HEAL (Honeywell Employee Assistance for Life issues) is the counselling service of Honeywell Technology Labs. HEAL has tied up with PPC Worldwide and provides round the clock advice and counselling on all issues ranging from financial, legal or emotional issues to all their employees. This service is totally confidential where the consultant respects the privacy of the employee and treats all details and issues as highly confidential. At Accenture, they believe that telecommuting is one of the key tools for attracting and retaining employees especially women employees. Our employees have the flexibility to exercise a need-based work from home option as it helps them more in maintaining

balance between work and home. The benefits of telecommuting include increased productivity, lower attrition, less number of leaves taken, cost savings on infrastructure and of course an extremely happy workforce. Firms are not leaving it at this point. They are also evaluating the results of these initiatives to ensure that all these initiatives have the desired impact. Company heads also talk informally with the staff to understand how they are balancing their personal and professional lives.

(A) On the basis of your reading of the above passage make note son it, using headings and sub-headings. Use recognizable abbreviations (wherever necessary minimum four) and a form at you consider suitable. Also supply an appropriate title to it

(B) Write a summary of the passage in about 80words.

3. Every year in the Rose Garden, an Ikebana show is held in the month of March.
    Your school has received a circular from the District collector inviting the students to visit it. Write a notice in about 50 words informing the students about the show and advising them to go and enjoy it. You are Gopal/Geeta, Head Boy/Head Girl, Saraswati Vidyalaya, Ambala.

4. Your school, Modern International School, Bangalore is looking for five security guards from some renowned security agency. On behalf of the Principal, write an advertisement in about 50 words to be published in the classified columns of a local daily. Mention the educational and professional qualifications, other qualities required in the security guards, who to apply to and the last date for the receipt of applications.

5. On Teachers Day, you read in a newspaper the low salary offered to lecturers in privately owned and managed colleges in small towns or even in the urban of metropolitan cities. You feel that these colleges compromise on quality of teaching. Write a letter in 120-150 words to the editor of a national daily raising your voice against such exploitation. Suggest ways to solve this problem. You are Naman/Nikita, Secretary, Bhaveen International School. Bangalore.

6. You are Radhika/Naresh, Secretary, Prelude International School, Bangalore. You, along with a group of students, went on a 2-day tour through Delhi's historical monuments. You found it disheartening how the tourists abuse the available facilities and thus endanger the historical monuments. You feel that this will endanger the heritage of India. Write a letter in 120-150 words to the editor of a national daily highlighting the situation. Suggest ways through which the monuments can be saved.

7. Write a speech in 150-200 words on the importance of power in our daily life. Also suggest ways to save power at school and at home. Advice the students to use more renewable sources. Imagine you are the Principal of your school.

8. Applications like WhatsApp have become more than a means of communication.
    They have become a status symbol. People are so glued to it that they don't pay proper attention to their work. It has become a new tool among gossip mongers. Write a speech in 150-200 words to be delivered in the morning assembly on this topic.

9. You are Aman/Anushka. Your nephew got admission in one of the pre-schools which promises direct admission of children to renowned schools. You find many parents who have come for getting their children admitted to such schools. You feel that this new trend of pre-schools is actually a way of earning money on the part of the schools. You also feel that pre-schools have mushroomed because of nuclear families and working parents. Write an article in 150-200 words giving details on this practice of pre-schools.

10. After samples of "Maggi" noodles manufactured in March 2014 were reportedly found to contain high lead content and Monosodium Glutamate (MSG), the State Food Safety and Drug Administration Department recalled many packets. Now, the ITC product Yippee is also being tested. You believe that all this is a publicity stunt on the part of such companies to promote their goods. Write an article in150-200 words expressing how such publicity stunts are a sham and are in fact meant to trap innocent public. You are Rahul/ Kritika.

ACCOUNTANCY

Q1. From the following given information, prepare Receipt and Payment Account & Income and Expenditure Account of Shivan Club, Agra for the year ending on 31st March, 2020:

Particulars	`
Cash in hand	50,000
Cash at bank	40,000
Subscription (including ` 16,000 for 2018-19 and ` 24,000 for 2021-22)	9,40,000
12% investments	3,00,000
Entrance fees	30,000
Sports materials purchased	1,40,000
Machine purchased	1,60,000
Sale of old Machine (Cost ` 40,000)	10,000
Taxes	2,000
Stationery	48,000
Sale of old Sports Material	12,000
Salary (` 4,000 still to be paid)	40,000
Interest received on investments	12,000
Match expenses	1,44,000
Wages paid	1,68,000
Other Misc. exp	4,000

Q2. From the following given information, prepare Receipt and Payment Account & Income and Expenditure Account of Shivan Moto Club, Agra for the year ending on 31st March, 2020:

Particulars	`
Cash in hand	35,000
Cash at bank	2,50,000
Subscription (including ` 16,000 for 2018-19 and ` 24,000 for 2021-22)	3,00,000
10% investments (purchased on 1st Oct, 2019)	1,00,000
Entrance fees	6,00,000
Rent from club hall	2,00,000
Honorarium to Coaches	20,000
Legacy received for old age females	10,00,000
Sports materials purchased	20,000
Furniture purchased	50,000
Sale of old furniture (Cost ` 30,000)	1,00,000
Municipal Taxes	10,000
Printing &Stationery	2,000
Sale of old Sports Material	60,000
Salary	35,000
Interest received on investments	2,000
Match expenses	45,000
Wages paid (out of which 5,000 paid in advance)	20,000
Other Misc. expenses.	15,000
Cash in Hand	10,000

Q3. From the following given information, prepare Receipt and Payment Account & Income and Expenditure Account of Tanmaiy Club, Agra for the year ending on 31st March, 2020:

Particulars	`
Cash in hand	1,00,000
Cash at bank	8,00,000
Subscription	9,50,000
Entrance Fees	1,50,000
Salary	80,000
Printing & Stationery	12,000
Misc. Expenses	8,000
Insurance Premium	16,000
Telephone and Fax expenses	4,000
Furniture purchased	20,000
Machinery Purchased	3,00,000
Donation	30,000
Life Membership fees	1,00,000
Sale of old waste items	20,000
Sale of Match tickets	60,000
Donation for tournament	1,00,000
Match Expenses	50,000
Investments Purchased	3,00,000
Tournament expenses	1,20,000
Interest Received	15,000
Legacy Received	20,00,000
Rent from Club Hall	1,50,000
Cash at bank	20,000

Additional Information:

	2018-19	2019-20
Outstanding Subscriptions	1,00,000	2,00,000
Subscription Received in advance	80,000	60,000
Salaries outstanding	20,000	10,000
Prepaid salary	10,000	30,000
Furniture	2,00,000	1,80,000

Depreciate furniture by 20%, and Machinery by 10%.

Q4. From the following given information, prepare Income and Expenditure Account of Tanmaiy Club, Agra for the year ending on 31st March, 2020:

Receipts		`	Payments	`
To Balance B/d		50,000	By Postage and Telegram	2,000
To Subscriptions			By Salaries and Wages	30,000
2018-19	3,000		By Rent of the Hall	50,000
2019-20	1,00,000		By printing expenses	6,000
2020-21	4,000	1,07,000	By Sports material purchased	20,000
To Donations for Match Fund			By Stationery expenses	2,000
To Entrance Fees		1,20,000	By Furniture Purchased	40,000
To Sale of Old News Paper		22,000	By 10 % Investments in Match Fund	
		1,000	By 10% Investments	50,000
			By Balance C/d	60,000
				40,000
		3,00,000		**3,00,000**

Adjustments:

1. There are 500 members each paying an annual subscriptions of ` 200 each ` 4,000 were in arrears for year 2018-19.
2. Donation for ` 20,000 was wrongly included in the donation for Match Fund.
3. Stock of Stationery on 31st March, 2019 were 1, 00,000 and as on 31st March 2020 were 35,000.

ECONOMICS

1. Define poverty?

2. Write the difference between absolute poverty and relative poverty?

3. Define poverty line? How are people identified as poor and non-poor?

4. What are the causes of poverty?

5. How does the following contribute in removing poverty:-
   A. Population control
   B. Reducing inequalities of income
   C. Land reforms

6. Briefly explain the following:-
   A. Prime Minister's Rozgar Yojana (PMRY)
   B. Swarna Jayanthi Shahri Rozgar Yojana (SJSRY)
   C. National Rural Employment Guarantee Act 2005
   D. Sampoorna Grameen Rozgar Yojana (SGRY)

7. Illustrate the difference between rural and urban poverty. Is it correct to say that poverty has shifted from rural to urban areas? Use the trends in poverty ratio to support your answer.

8. What programmes has the government adopted to help the elderly people and poor and destitute women?

9. Suppose you are a resident of a village, suggest a few measures to tackle the problem of poverty.

10. Is there any relationship between unemployment and poverty? Explain.

BUSINESS STUDIES

MULTIPLE CHOICE QUESTIONS:

Choose the correct option to answer the following questions:

1. In order to enter into profession one has to acquire an educational degree by clearing specified examination conducted by registered institutes. Which feature of profession is being revealed?
   (a) Restricted entry. (b) Ethical code of conduct
   (c) Professional association. (d) Well defined body of knowledge

2. The style of singing of Arijit Singh and Guru Randhawa are different to each other, however they acquired some knowledge of ragas. Identify the feature of art discussed above.
   (a) Based on practice and creativity. (b) Universal validity
   (c) Existence of theoretical knowledge. (d) Personalised application

3. "It involves leading, influencing and motivating the employees to perform the assigned task," highlighted one of the functions of management. Identify.
   (a) Staffing. (b) Planning
   (c) Directing. (d) Controlling

4. "Deciding in advance what is to be done and who is to do it" highlighted one of the functions of management. Identify it.
   (a) Organising. (b) Planning
   (c) Directing. (d) Controlling

Fill in the Blanks with appropriate words:

5. Scientific principles are developed through _____ and _____ .

6. All professions are based on _____ of knowledge.

Match the following:

7. Match the columns by identifying the management functions:

Column-I.	Column-II
1. It bridges the gap between where. we are and where we want to be.	A. Directing B. Planning
2. Process of assigning the duties, grouping tasks, establishing authority	C. Organising

and allocating resources.

Choose the correct option
(a) 1–B; 2-A
(b) 1–C; 2-A
(c) 1-B; 2-C
(d) 1-A; 2-C

CRACK THE CASE

Q8.   Nischay joins an IT firm as a system analyst after completing his masters degree in Computer Science. As the nature of his work demands very close coordination with all the departmental heads in the firm, very soon Nischayrealises that each departmental head has his own individual style of working. They differ greatly in their day-to-day approach to work. They tend to deal with a given situation, or issue or a problem through a combination of their own experience, creativity, imagination, initiative and innovation.
(a) Identify the nature of management highlighted in the above case.
(b) State its three features.

Q9.   Payal is the branch manager of United Handicrafts Pvt. Ltd. The company's objective is to promote the sales of Indian handloom and handicraft products. It sells fabric, furnishings, ready-mades and household items are made out of traditional Indian fabrics. Payal decides quantities, variety, colour and texture of all the above items and then allocates resources for their purchase from different suppliers. She appoints a team of designers and crafts people in the company, who developed some prints for bed covers in bright colours on silk. Although they looked very impressive, they where more expensive than they had planned to sell. Average customer could not afford to buy it. Praising their effort, Payal suggested that they should keep the silk bed covers for special occasions like Diwali and Christmas and offer the cotton bed covers on a regular basis to keep costs under control.
Identify the functions of management which Payal performs by quoting the lines from the above case.

Q10. Hema is one of the most successful managers of her company, 'Kobe Ltd.' She uses her creativity and initiative in handling challenging situations at work. The knowledge gained by her during her student days at a renowned management institute as well as through her observation and experience over the years is applied by Hema in a skillful manner in the context of the realities of a given situation. She often reads books and other literature in various fields of management to keep her knowledge updated.
(i)   An aspect of the nature of management is being highlighted in the above description. Identify the aspect.
(ii) Explain any three features of the aspect identified in part (i)

COMPUTER SCIENCE & INFORMATICS PRAC.

1)   What are the three construct that govern statement flow in python?
2)   What are the similarity and difference between for and while loop?
3)   What are the difference between Break and Continue statements?
4)   What is the use of range () function? What would range (3, 13) return?
5)   Suggest a situation where an empty loop is suitable.
6)   Python Program to check if a Number is Positive, Negative or 0.
7)   Python Program to check if a Number is Odd or Even.
8)   Take input of age of 3 people by user and determine oldest and youngest among them.
9)   Company decided to give bonus of 5% to employee if his/her year of service is more
      than 5 years. Ask user for their salary and year of service and print the net bonus amount.
10) A school has following rules for grading system:
      a. Below 25 - F
      b. 25 to 45 - E
      c. 45 to 50 - D
      d. 50 to 60 – C
      e. 60 to 80 - B
      f. Above 80 - A
      Ask user to enter marks and print the corresponding grade
11) Take 10 integers from keyboard using loop and print their average value on the screen.

12) Write a program for Sum of squares of first n natural numbers
13) Program to calculate and print the sums of even and odd integers of first n natural numbers
14) Python program to check whether a number is Prime or not
15) Python Program for Fibonacci numbers
16) Python Program to check Armstrong Number.
17) Write a python program to print the square of all numbers from 0 to 1
18) Take 10 integers from keyboard using loop and print their average value on the screen.
19) Write a python program to sum the given sequence:-
$1^2 + 3^2 + 5^2 + \ldots\ldots\ldots + n^2$
20) Print the following patterns using loop :

MATHEMATICS

Q1. In the matrix $A = \begin{bmatrix} 2 & 5 & 19 & -7 \\ 35 & -2 & \dfrac{5}{2} & 12 \\ \sqrt{3} & 1 & 1 & 17 \end{bmatrix}$, write:

(i) The order of the matrix,

(ii) The number of elements,

(iii) Write the element a_{13}, a_{21}, a_{33}, a_{23}.

Q2. Construct a 2X2 matrix, $A = \begin{bmatrix} a_{ij} \end{bmatrix}$, whose elements are given by:

(i) $a_{ij} = \dfrac{(i+j)^2}{2}$,

(ii) $a_{ij} = \dfrac{i}{j}$,

(iii) $a_{ij} = \dfrac{(i+2j)^2}{2}$,

Q3. Find the values of x, y and z from the following equations:

(i) $\begin{bmatrix} 4 & 3 \\ x & 5 \end{bmatrix} = \begin{bmatrix} y & z \\ 1 & 5 \end{bmatrix}$, (ii) $\begin{bmatrix} x+y & 2 \\ 5+z & xy \end{bmatrix} = \begin{bmatrix} 6 & 2 \\ 5 & 8 \end{bmatrix}$,

(iii) $\begin{bmatrix} x+y+z \\ x+z \\ y+z \end{bmatrix} = \begin{bmatrix} 9 \\ 5 \\ 7 \end{bmatrix}$,

Q4. If $A = \begin{bmatrix} 1 & 2 & 3 \\ 2 & 3 & 1 \end{bmatrix}$, and $B = \begin{bmatrix} 3 & -1 & 3 \\ -1 & 0 & 2 \end{bmatrix}$, then find 2A–B.

Q5. If $A = \begin{bmatrix} 8 & 0 \\ 4 & -2 \\ 3 & 6 \end{bmatrix}$, and $B = \begin{bmatrix} 2 & -2 \\ 4 & 2 \\ -5 & 1 \end{bmatrix}$, then find the matrix X, such that 2A+3X=5B.

Q6. If $A = \begin{bmatrix} 1 & 1 & -1 \\ 2 & 0 & 3 \\ 3 & -1 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 1 & 3 \\ 0 & 2 \\ -1 & 4 \end{bmatrix}$, and $C = \begin{bmatrix} 1 & 2 & 3 & -4 \\ 2 & 0 & -2 & 1 \end{bmatrix}$, find A(BC), (AB)C.

Q7. If $A = \begin{bmatrix} \frac{2}{3} & 1 & \frac{5}{3} \\ \frac{1}{3} & \frac{2}{3} & \frac{4}{3} \\ \frac{7}{3} & 2 & \frac{2}{3} \end{bmatrix}$, $B = \begin{bmatrix} \frac{2}{5} & \frac{2}{5} & 1 \\ \frac{1}{5} & \frac{2}{5} & \frac{4}{5} \\ \frac{7}{5} & \frac{6}{5} & \frac{2}{5} \end{bmatrix}$, then compute 3A–5B.

Q8. Find the transpose of the following matrices:

(i) $\begin{bmatrix} 5 \\ \frac{1}{2} \\ -1 \end{bmatrix}$,

(ii) $\begin{bmatrix} 1 & -1 \\ 2 & 3 \end{bmatrix}$,

(iii) $\begin{bmatrix} -1 & 5 & 6 \\ \sqrt{3} & 5 & 6 \\ 2 & 3 & -1 \end{bmatrix}$,

Q9. If $A = \begin{bmatrix} -1 & 2 & 3 \\ 5 & 7 & 9 \\ -2 & 1 & 1 \end{bmatrix}$, and $B = \begin{bmatrix} -4 & 1 & -5 \\ 1 & 2 & 0 \\ 1 & 3 & 1 \end{bmatrix}$, then verify that

(i) $(A+B)' = A' + B'$, $(A-B)' = A' - B'$,

Q10. Using elementary row transformations, find the inverse of each of the following matrices, if it exists:

(i) $\begin{bmatrix} 1 & -1 \\ 2 & 3 \end{bmatrix}$, (ii) $\begin{bmatrix} 3 & 10 \\ 2 & 7 \end{bmatrix}$, (iii) $\begin{bmatrix} 6 & -3 \\ -2 & 1 \end{bmatrix}$,

(iv) $\begin{bmatrix} 2 & -3 & 3 \\ 2 & 2 & 3 \\ 3 & -2 & 2 \end{bmatrix}$, (v) $\begin{bmatrix} 2 & 0 & -1 \\ 5 & 1 & 0 \\ 0 & 1 & 3 \end{bmatrix}$, (vi) $\begin{bmatrix} 3 & -1 & -2 \\ 2 & 0 & -1 \\ 3 & -5 & 0 \end{bmatrix}$, (vii) $\begin{bmatrix} 1 & 3 \\ 2 & 7 \end{bmatrix}$,

Q11. Compute the adjoint of the matrix:

(i) $\begin{bmatrix} 1 & 4 & 5 \\ 3 & 2 & 6 \\ 0 & 1 & 0 \end{bmatrix}$, (ii) $\begin{bmatrix} 1 & 1 & 1 \\ 2 & 1 & -3 \\ -1 & 2 & 3 \end{bmatrix}$,

Q12. Find the inverse of each of the following matrices:

(i) $\begin{bmatrix} 1 & 2 & 3 \\ 2 & 3 & 1 \\ 3 & 1 & 2 \end{bmatrix}$,

(ii) $\begin{bmatrix} 2 & -1 & 1 \\ -1 & 2 & -1 \\ 1 & -1 & 2 \end{bmatrix}$,

(iii) $\begin{bmatrix} 2 & 0 & -1 \\ 5 & 1 & 0 \\ 0 & 1 & 3 \end{bmatrix}$

$$(iv) \quad \begin{bmatrix} 0 & 0 & -1 \\ 3 & 4 & 5 \\ -2 & -4 & -7 \end{bmatrix},$$

$$(v) \quad \begin{bmatrix} 0 & 1 & -1 \\ 4 & -3 & 4 \\ 3 & -3 & 4 \end{bmatrix},$$

$$(vi) \quad \begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos x & \sin x \\ 0 & \sin x & -\cos x \end{bmatrix},$$

$$(vii) \quad \begin{bmatrix} 1 & 3 & 3 \\ 1 & 4 & 3 \\ 1 & 3 & 4 \end{bmatrix},$$

$$(viii) \quad \begin{bmatrix} 2 & 3 & 1 \\ 3 & 4 & 1 \\ 3 & 7 & 2 \end{bmatrix},$$

PHYSICAL EDUCATION

Q1   What do you mean by asana?
Q2   Messenger contraindications of Paschimottanasana
Q3   Discuss any two benefits of Paschimottanasana.
Q4   Discuss the two contraindications of Trikonasana.
Q5   Discuss the procedure of Pawanmuktasana.
Q6   State the contraindication of Gomukhasana and Bhujangasan.
Q7   Discuss asana and preventive measures in detail?
Q8   Explain the procedure of Paschimottanasana.
Q9   What do you mean by diabetes? Discuss the procedure, benefits and contraindications of Bhujangasana.
Q10   What is hypertension? Discuss the benefits and contraindications of ArdhaChakrasan and Vajrasana .

HINDI CORE

सभी प्रश्न अनिवार्य है-

प्रश्न- 1 निम्नलिखित में से किसी एक विषय पर लगभग 150 शब्दों में फीचर लिखिए-

    1. आज की तनावपूर्ण जीवन-शैली।
    2. महानगरों में बढ़ते अपराध।
    3. शहरों का दमघोटू वातावरण।

प्रश्न-2 आपके क्षेत्र में खाली पड़ी जमीन पर वन-महोत्सव के समय बहुत से पौधे लगाए गए, परंतु यह पौधे देख रेख एवं सिंचाई की कमी के कारण सूख कर आधे हो गए हैं। उद्यान विभाग के वरिष्ठ अधिकारी को पत्र लिखकर उनकी उचित देखरेख हेतु पत्र लिखिए।

प्रश्न-3 निम्नलिखित प्रश्नों के उत्तर लिखिए-

    1. पत्रकारिता का मूल तत्व क्या हैं?
    2. पत्रकारिता किसे कहते हैं?
    3. पत्रकारिता के मूल्यों को स्पष्ट कीजिए?