



St. Mary's School, Dwarka
Holiday Homework
Class XII
Worksheet 4

Subject: English

General Instructions:

- 1) The work should be done neatly and in a systematic way.
- 2) The given questions are to be done in the English notebook.
- 3) Attempt all questions.

Q1. Read the passage carefully.

1. Philosophy of Education is a label applied to studying education's purpose, process, nature and ideals. It can be considered a branch of both philosophy and education. Education can be defined as the teaching and learning of specific skills, and the imparting of knowledge, judgment and wisdom, and is something broader than the societal institution of education we often speak of.

2. Plato is the earliest important educational thinker, and education is an essential element in "The Republic" (his most important work on philosophy and political theory, written around 360 B.C.). In it, he advocates some rather extreme methods: removing children from their mothers' care and raising them as wards of the state, and differentiating children suitable to the various castes, the highest receiving the most education, so that they could act as guardians of the city and care for the less able. He believed education should be holistic, including facts, skills, physical discipline, music and art. Plato believed talent and intelligence are not distributed genetically and thus can be found in children born to all classes. His proposed system of selective public education for an educated minority of the population does not follow a democratic model.

3. During the Medieval period, the idea of Perennialism was first formulated by St. Thomas Aquinas in his work "De Magistro". Perennialism holds that one should teach those things deemed to be of everlasting importance to all people everywhere, namely- principles and reasoning, not just facts (which are apt to change over time). One should teach first about people, not machines or techniques. It was originally religious, and it was only much later that a theory of secular perennialism developed.

4. During the Renaissance, the French sceptic Michel de Montaigne (1533 - 1592) was one of the first to view education critically. Unusually for his time, Montaigne was willing to question the conventional wisdom of the period, calling into question the whole edifice of the educational system, and the implicit assumption that university-educated philosophers were necessarily wiser than uneducated farm workers.

Q1. Based on the reading of the passage, choose the correct option. (1x5=5)

i. What is the main focus of the Philosophy of Education? 1

- A. The history of education
- B. The purpose, process, nature, and ideals of education
- C. The administrative aspects of educational institutions
- D. The financial aspects of education

ii. How does Plato's view on talent and intelligence differ from common genetic beliefs?

He believes_____.

1

- A. talent and intelligence are distributed based on social class.
- B. intelligence is solely a product of genetic inheritance
- C. only the upper class possesses talent and intelligence.
- D. talent and intelligence are not distributed genetically.

iii. From Plato's educational philosophy, what can be inferred about his view on societal roles?

He believed_____.

1

- A. societal roles should be inherited
- B. education should determine societal roles
- C. everyone should have the same education.
- D. education was unnecessary for societal roles.

iv. What does the term "holistic" imply in the context of Plato's educational philosophy?

- A. Focused on religious teachings
- B Exclusive to the elite class
- C. Comprehensive, including various disciplines
- D. Centered on physical discipline

v. The word, "edifice", according to Montaigne's view of the educational system means

a_____.

1

- A. large, complex system
- B. small part
- C. religious building
- D. piece of machinery

Q2. The Literary Club of Salwan Public School is staging a play based on, 'The Jungle Book'. You are Ravit/Rhea, Secretary of the Club. Draft a notice inviting the students of Std. VI-XII to audition for the same. Invent all the necessary details like date, time etc. (50 words) (4)

Q3. Read the extract and answer the questions given below. (1X5=5)

I'm just an ordinary guy named Charley, thirty-one years old, and I was wearing a tan gabardine suit and a straw hat with a fancy band; I passed a dozen men who looked just like me. And I wasn't trying to escape from anything: I just wanted to get home to Louisa, my wife. I turned into Grand Central from Vanderbilt Avenue, and went down the steps to the first level, where you take trains like the Twentieth Century. Then I walked down another flight to the second level, where the suburban trains leave from, ducked into an arched doorway heading for the subway- and got lost. That's easy to do.

i. What was Charley's destination when he entered Grand Central?

1

- A. The Twentieth Century train
- B. The suburban trains
- C. The subway
- D. A different city

ii. Charley mentions passing "a dozen men who looked just like me" to_____

1

- A. emphasise his feeling of being ordinary and unremarkable

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- B. show that he was in a hurry and did not notice anyone
- C. indicate that he was in a very busy and crowded place
- D. suggest that he was in a uniformed profession

iii. What does the passage imply about the layout of Grand Central?

1

- A. It is straightforward and easy to navigate
- B. It is confusing and easy to get lost in
- C. It only has one level and is simple
- D. It is a small, uncomplicated station

iv. The author includes details about the different levels and trains to_____.

1

- A. illustrate the complexity of the station
- B. show Charley's interest in trains
- C. highlight the modernity of the station
- D. suggest that Charley is a train enthusiast

v. Choose the correct option.

1

Assertion: Charley was trying to escape from something when he got lost in Grand Central.

Reason: He wanted to avoid his responsibilities.

- A. Both the assertion and the reason are true, and the reason is the correct explanation for the assertion.
- B. Both the assertion and the reason are true, but the reason is not the correct explanation for the assertion.
- C. The assertion is true, but the reason is false.
- D. Both the assertion and the reason are false.

Q4. Answer the following questions briefly in 40-50 words.

(2x3=6)

- i.** How would you evaluate Sam's character? Elucidate any two qualities, and substantiate with evidence from the text. **2**
- ii.** Why do you think Mukesh is content to dream of cars and doesn't dream of flying a plane? **2**
- iii.** The manner of the Tiger King's death is a matter of extraordinary interest. Comment. **2**

Q5. Activity: Research any 2 types of ships that have undertaken voyages to Antarctica and their features. Design a ship unique in appearance that you would take on the voyage to your dream destination. Mention 2 features that set your ship apart from the others. (Use an A-4 size pastel sheet. **(5)**

Subject: Mathematics

2x20=40

Q1 If a matrix has 8 elements, what are the possible orders it can have? What if it has 5 elements?

Q2 Construct a 4×3 matrix whose elements are

$$(i) a_{ij} = 2i + \frac{i}{j} \quad (ii) a_{ij} = \frac{i-j}{i+j} \quad (iii) a_{ij} = i$$

Q3 If $A = \begin{bmatrix} x-y & z \\ 2x-y & \omega \end{bmatrix} = \begin{bmatrix} -1 & 4 \\ 0 & 5 \end{bmatrix}$ find x, y, z, ω .

Q4 Find a matrix X such that $2A + B + X = O$, where

$$A = \begin{bmatrix} -1 & 2 \\ 3 & 4 \end{bmatrix}, B = \begin{bmatrix} 3 & -2 \\ 1 & 5 \end{bmatrix}$$

Q5 If $A = \begin{bmatrix} 2 & -1 \\ 3 & 2 \end{bmatrix}, B = \begin{bmatrix} 0 & 4 \\ -1 & 7 \end{bmatrix}$, find $3A^2 - 2B + I$

Q6 If $A = \begin{bmatrix} \alpha & 0 \\ 1 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 0 \\ 5 & 1 \end{bmatrix}$, find the values of α for which $A^2 = B$.

Q7 Let $A = \begin{bmatrix} 2 & -1 \\ 3 & 4 \end{bmatrix}, B = \begin{bmatrix} 5 & 2 \\ 7 & 4 \end{bmatrix}, C = \begin{bmatrix} 2 & 5 \\ 3 & 8 \end{bmatrix}$

Find a matrix D such that $CD - AB = 0$.

Q8 If the matrix $A = \begin{bmatrix} 5 & 2 & x \\ y & z & -3 \\ 4 & t & -7 \end{bmatrix}$ is a symmetric matrix, find x, y, z and t .

Q9 If $A = \begin{bmatrix} 1 & 1 \\ 1 & 1 \end{bmatrix}$ satisfies $A^4 = \lambda A$, then write the value of λ .

Q10 If $S = [S_{ij}]$ is a scalar matrix such that $s_{ij} = k$ and A is a square matrix of the same order, then $AS = SA$?

- (a) A^k (b) $k + A$ (c) kA (d) kS

Q11 If A is a square matrix such that $A^2 = A$, then $(I + A)^3 - 7A$ is equal to

- (a) A (b) $I - A$ (c) I (d) $3A$

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Q12

$$\text{If } \begin{bmatrix} 1 & -1 & x \end{bmatrix} \begin{bmatrix} 0 & 1 & -1 \\ 2 & 1 & 3 \\ 1 & 1 & 1 \end{bmatrix} \begin{bmatrix} 0 \\ 1 \\ 1 \end{bmatrix} = 0, \text{ find } x.$$

Q13

$$\text{If } A = \begin{bmatrix} 3 & 1 \\ -1 & 2 \end{bmatrix} \text{ and } I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}, \text{ then find } \lambda \text{ so that } A^2 = 5A + \lambda I.$$

Q14

$$\text{If } A = \begin{bmatrix} 1 & 1 \\ 0 & 1 \end{bmatrix}, \text{ prove that } A^n = \begin{bmatrix} 1 & n \\ 0 & 1 \end{bmatrix} \text{ for all positive integers } n.$$

Q15

$$\text{If } A = \begin{bmatrix} \cos \theta & i \sin \theta \\ i \sin \theta & \cos \theta \end{bmatrix}, \text{ then prove by principle of mathematical induction that}$$

$$A^n = \begin{bmatrix} \cos n\theta & i \sin n\theta \\ i \sin n\theta & \cos n\theta \end{bmatrix} \text{ for all } n \in \mathbb{N}.$$

Q16

$$\text{If } A = \begin{bmatrix} 1 & 2 & 2 \\ 2 & 1 & -2 \\ a & 2 & b \end{bmatrix} \text{ is a matrix satisfying } AA^T = 9I_3, \text{ then find the values of } a \text{ and } b.$$

Q17

$$\text{If } A = \begin{bmatrix} \cos \theta & \sin \theta \\ \sin \theta & \cos \theta \end{bmatrix}, \text{ then find the values of } \theta \text{ satisfying the equation } A^T + A = I_2.$$

Q18

$$\text{Find the values of } x, y, z \text{ if the matrix } A = \begin{bmatrix} 0 & 2y & z \\ x & y & -z \\ x & -y & z \end{bmatrix} \text{ satisfy the equation } A^T A = I_3.$$

Q19

$$\text{Express the matrix } A = \begin{bmatrix} 3 & 2 & 3 \\ 4 & 5 & 3 \\ 2 & 4 & 5 \end{bmatrix} \text{ as the sum of a symmetric and a skew-symmetric matrix.}$$

Q20 Let A and B be symmetric matrices of the same order. Then, show that

(i) $A + B$ is a symmetric matrix

(ii) $AB - BA$ is a skew-symmetric matrix

(iii) $AB + BA$ is a symmetric matrix

Project -1

Make a project on Matrices and their applications (ex- coding and decoding, cryptography).

Project -2

Learn how to use Microsoft, Excel for addition , subtraction, and transpose of matrices. Make a soft copy of the same and paste screenshot of the output on the file along with project.

Subject: Computer Science

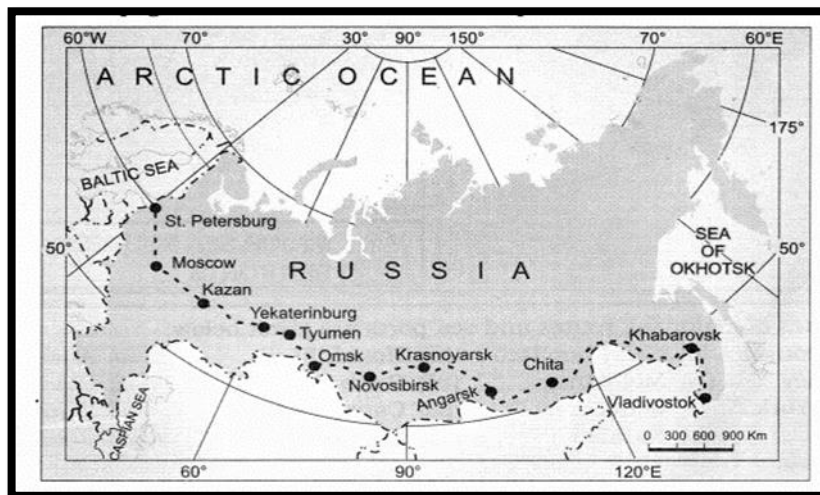
| | |
|-------------------------------------------------------------------------|---|
| Q.1 What is protocol? How many types of protocols are there? | 2 |
| Q.2 What is the difference between networking and remote networking? | 2 |
| Q.3 What is point-to-point protocol? | 2 |
| Q.4 How gateway is different from router? | 2 |
| Q.5 What is the role of network administrator? | 2 |
| Q.6 What is the difference between baseband and broadband transmission? | 2 |
| Q.7 What are the difference between domain and workgroup? | 2 |
| Q.8 What is the differences between POP3 and IMAP Mail Server? | 2 |
| Q.9 Name different layer of the ISO OSI Model. | 3 |
| Q.10 What is FDM? Give example. | 3 |
| Q.11 Describe the following in brief: | 3 |
| i) MOSAIC ii) USENET iii) WAIS | |

Subject: Psychology

- Q1. Define self. 1
- Q2. In value assessment we try to determine the _____ values of a person. 1
- Q3. Define personality. 2
- Q4. People who are confident, can solve problems, confront the things that frighten them and nurture themselves are all qualities of which Behavioural aspect of self. Write a note on it. 2
- Q5. Rita is learning music. Many times, she has to miss her favourite serial as she has to go for music classes. Also, she wakes up early to practice despite her love her sleep. Which concept from the chapter self and personality can you link to this situation? 2
- Q6. Which concept of self is based on Bandura's social learning theory? Write a note on it. 2
- Q7. If a psychologist is evaluating you by asking your response to ink blots, which form of assessment is the psychologist using? List any two features of this form of assessment. 3
- Q8. Is there difference between self-actualization and a fully functioning individual? Support your answer with the help of examples. 4
- Q9. Distinguish between type and trait approach of personality. Give suitable examples. 4
- Q10. What is meant by delay in gratification? Discuss the technique used for self-control. 4

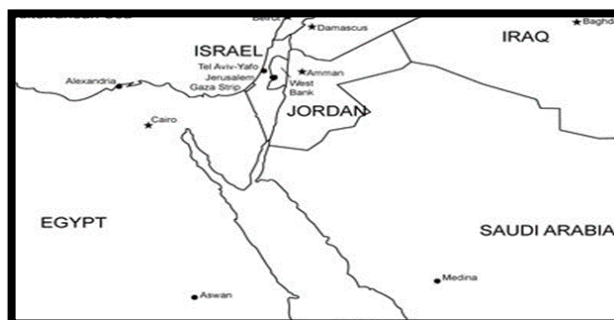
Subject: Geography

Q1. Study the map carefully and answer the questions that follow: -



- (i) Name the railway line shown in the map. 1
- (ii) Name two ocean coasts which are being connected by this line. 1
- (iii) Write significance of this railway line. 1

Q2. Study the map carefully and answer the questions that follows-

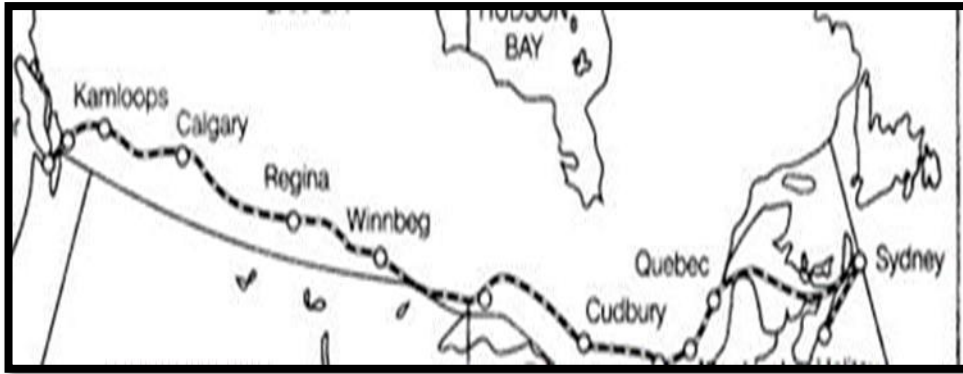


- 1. Identify the type of waterway 1
- 2. Name the seas connected through this waterway 1
- 3. Name the end ports of this waterway 1

Q3. Study the given map carefully and answer the questions that follows: -

- 1. Identify the railway line in the given map. 1
- 2. Name the terminal station to east and the west coast 1
- 3. Mark the oceans lying to the east and west of the terminal stations. 1

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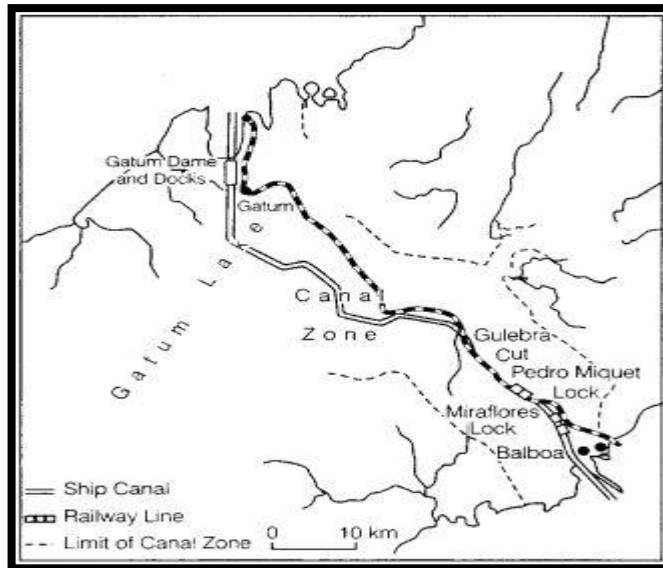
Q4 Study the given map and answer the questions: -

1. Name the type of waterway and name the countries served by this waterway. 1
2. Why it is considered important for Europe. 1



Q5 Study the map carefully and answer the questions:-

1. Identify the canal Zone and write its importance. 1
2. Name the terminal points of this canal zone and the connecting seas. 1
3. Explain is the lock system of this canal. 1



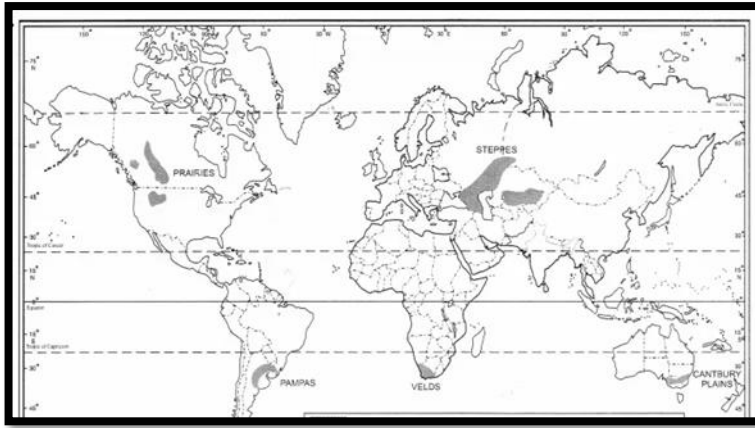
Q6 Study the given map and answer the questions that follows-

1. Identify the type of agriculture practiced in the shaded areas 1
2. Write the characteristics associated with this type of practice 1

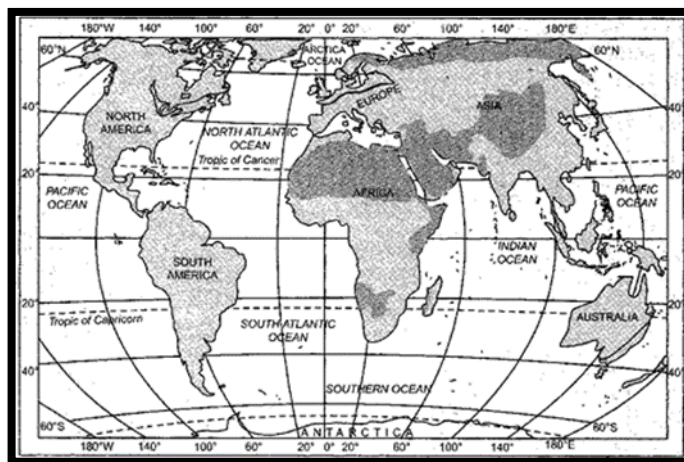


- Q7
1. Identify the type of cultivation 1
 2. Name the major crops cultivated in these areas. 1
 3. 'Low yield per acre but high yield per person' justify the statement. 1

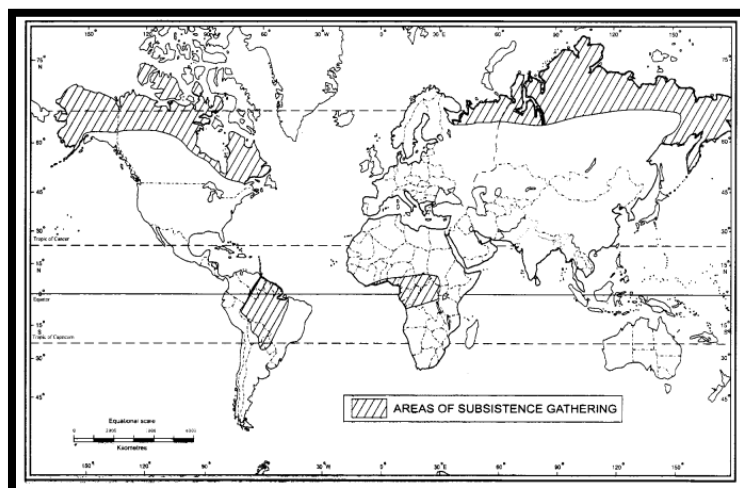
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Q8 Identify the region where this type of agriculture is practiced. Give a reason for the decreasing trend. 1



Q9 Look at the map given below identify the type of activity practiced and write important characteristics of this type of cultivation. 1



Q10 Identify and write the characteristics of this type of economic activity

1



Subject: History

Answer the following questions:

1. Name the two types of sources through which we come to know about Buddha and his teachings. 1
2. Mention four places associated with the life of the Buddha. 1
3. What do you mean by Tri -ratna? 1
4. What do you understand by Kutagrahashala ? 1
5. Mention any two features of the administrative system of the Mauryan Empire. 2
6. How was the fate of Amaravati stupa different from the Sanchi stupa? 2
7. Mention the internal functioning of the Buddhist Sanghas. 3
8. Explain briefly the notions of kingship during Kushana and Gupta empire. 3
9. What was the Budha Sangha? Discuss its characteristics. 3
10. Explain the agricultural practices followed by the cultivators to increase productivity from C 600 BCE to 600 CE. 8

Subject: Political Science

Objective: - To enable the students to know about the inventions of new concepts in world politics and constitution of India.

- To develop 21st century managerial skills of co-ordination, self-direction and time management.
- To understand contemporary political issues in context to our past.

To develop a global perspective and an international outlook.

Research Activity: - Research and collect the information on recent revolution of political ideas in the world and India, in the following areas.

- Comparison between NITI Aayog and Planning Commission and their contribution in India's Development.
- Health Epidemic – A new source of security threat

Assignment: - Project Work

Project Ideas

- Green politics, need of the hour
- Superpower – The American view of world.
- Is soft politics a novel way of resolving deadlocks?
- Political Impact on Indian Legislations.
- Political Impact on India's international standing.
- Indian political stand on United Nations General Assembly 2022.
- Relevance of SAARC as a forum of regional cooperation.
- Division of Germany with special focus on the construction and dismantling of the Berlin wall.
- CIS- Central Asian Republics.
- Arab Spring
- Crisis in Middle East with special focus on Operation Desert Storm, Operation Iraqi Freedom, Iraq today.
- European Union and BREXIT.
- BRICS
- India's Nuclear Policy.
- U.S. dominance in World politics in the Post-Cold War era.
- India's role in Non-Aligned Movement.
- Civil Society Movements - Role and participation in India.
- Relevance of the United Nations in a Unipolar World.
- Understanding Resource Geopolitics and Environment degradation
- India's external relations -Critical analysis of the foreign policy of India especially with its immediate neighbours (Pakistan, China, Sri Lanka, Nepal, Myanmar)
- Popular movements in the post-Independence era and their outcomes.
- Project on the role played by the regional aspirations in backing the secessionist and insurgency movement in India
- India's response to ASEAN as a dialogue partner.

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GUIDELINES FOR THE PROJECTS:

It must be emphasized that the process of doing the project is as important as the final project. Once the project/projects are chosen, there should be a process of brainstorming to make out a draft/structure for the project before embarking on research.

Internet sites could be referred, but care must be taken in selecting, using and citing these sites.

Avoid plagiarism

Marks to be awarded for content and originality and not for decorative elements and embellishments.

Projects must be the original work of the student.

Project may be supported by- Data, fact sheets, maps, articles, newspaper clips

Maximum of 25-30 page projects.

- | | | |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------|---|
| Q.1 | What is Human Rights Watch? Describe its main contribution to the field of Human Rights. | 2 |
| Q.2 | Describe the military actions taken during the Clinton era. | 2 |
| Q.3 | Describe the current state of Israel. | 2 |
| Q.4 | 'Pakistan has witnessed both civilian and democratic system'. Explain. | 2 |
| Q.5 | State any six post-Cold War changes that have necessitated reforms to make the Un work better. | 3 |
| Q.6 | 'Reforming the UN means restructuring of the Security Council'. Do you agree with this statement? Give arguments for or against this position. | 3 |
| Q.7 | Nuclear weapons as deterrence of defence have limited usage against contemporary security threats to state. Explain the statement. | 3 |
| Q.8 | Write a short note on the role and the limitations of SAARC as a forum for facilitating economic cooperation among the South Asian countries. | 3 |
| Q.9 | Examine Indo-Pak relations in the light of recent developments. | 5 |
| Q.10 | Discuss India's relations with China. | 5 |

Subject: Physical Education

Answer the following questions:

1. In which Olympics P.T. Usha secured 4th place in 400 m hurdle race? 1
(a) 1980 Olympics (b) 1984 Olympics
(c) 2016 Olympics (d) None of the above
2. In which Olympic games, Saina Nehwal and M.C. Mary Kom secured one bronze medal each? 1
(a) 2008 Olympics (b) 2012 Olympics
(c) 2016 Olympics (d) None of the above
3. In which Olympics did women participated for the first time? 1
(a) 1896 (b) 1900
(c) 1904 (d) 1908
4. Mary Kom belongs to which sports? 1
(a) Tennis (b) Wrestling
(c) Badminton (d) Boxing
5. What do you mean by specific sports programmes? Explain about health runs and run for unity in detail. 3
6. What do you mean by specific sports programmes? Explain any three. 3
7. While specifying all calculations, prepare a 'knock-out fixture' for 21 teams. 3
8. Draw a knock-out fixture of 21 teams mentioning all the steps involved. 5
9. Being the captain of the school, prepare five important committees with their responsibilities to conduct one day run for health race. 5
10. Explain the reasons for the less participation of women players in sports. 5

Subject: Economics

Answer the following questions:

- Q1. Explain the currency authority function of Central Bank. 2
- Q2. Explain lender of the last resort function of the Central Bank. 2
- Q3. Explain the banker to the government function of the Central Bank. 2
- Q4. Explain the meaning of Cash Reserve Ratio and Statutory Liquidity Ratio. 2
- Q5. State three main functions of commercial bank. Explain any one of them. 2
- Q6. Explain any two functions of a Central Bank. 3
- Q7. What is bank rate policy? How does it work as a method of credit control? 3
- Q8. What are open market operations? How do these work as a method of credit Control? 3
- Q9. State three methods of credit control used by the Central Bank. 3
- Q10. Explain any two main functions of commercial banks. 3