

CLASS XI
Holiday Homework (2018-19)
Somerville School, Vasundhara Enclave, Delhi-96
(Humanities Stream- XI A)

English

1. Read a novel: Prepare a chart and speak about the author and the novel.
2. Watch an English Film of your choice and present a short review. Include the name of the lead actors, directors, etc and a brief plot summary. Mention what you liked/ disliked about the film.
(Speaking Skills Activity)

History

1. History Project

Make a project on any one of the following topics: -

- a) The story of human evolution
- b) Cradle of civilizations – Mesopotamia
- c) Roman Mythology
- d) Early Empire of Rome
- e) Emergence of Islam and contributions of Caliphs
- f) Abbasids and Umayyads
- g) Genghis Khan and Mongols

Students should prepare the History Project as per the following headings:-

1. Project synopsis
2. Data/Statistical analysis/Map work
3. Analysis/explanation and interpretation
4. Bibliography

Students are encouraged to use pictures and maps. Collect information and interpret it in an interesting manner. The project should be handwritten on A4 size sheets. The project should include :cover page, table of contents, acknowledgements and bibliography.

WORKSHEET CLASS XI

THEME 1 FROM THE BEGINNING OF TIME

2 Mark Questions:

1. Explain the meaning of the fossil with the help of an example.
2. Name the various places from where the fossils of species can be dated directly or indirectly.
3. Differentiate the term hominid and hominoid.
4. Define ' Australopithecus'. How was Australopithecus different from Homo?
5. Differentiate Homo heidelbergensis from Homo - neanderthalensis.

4 Mark questions:

1. Discuss the ways of obtaining food of early humans.
2. How did the tools accumulate in one place? Explain the positive feedback mechanism.
3. When and how did spoken language develop?
4. Discuss the development of the skull size and distinctive jaws were associated with the tool - making of early human.
5. 'The development of spoken language has been seen as closely connected with art, since both are means of communication'. Evaluate.

8 Mark Questions

1. Can we compare the contemporary hunter-gathering society with the early humans? Explain with special reference to Hadza.

Map Work

On the political map of Africa, locate and label the following

- a) Chad
- b) Sudan
- c) Ethiopia
- d) South Africa
- e) Border Cave

THEME -2 WRITING AND CITY LIFE

2mark questions

1. Write the meaning of Mesopotamia and its importance in world history.
2. Write the two major necessities for urbanisation.
3. Name the four major cities of Mesopotamia.
4. Mention two major Mesopotamian legacies.

4 mark questions.

1. 'Iraq is a land of diverse environments'. Illustrate.
2. Mention the significance of Urbanism in Mesopotamia.
3. Compare one of the earliest cities 'Ur' with the Indian - town Mohenjo-Daro.
4. Mention the importance of the palace at Mari of King Zimrilim (1810 - 1760 BCE)
5. Why did an early temple look like a house?

8 mark questions

1. 'After 2000 BCE the royal capital of Mari flourished'.
2. Justify.
3. Discuss the greatest legacy of Mesopotamia to the world in scholarly tradition of time reckoning and mathematics.

Map Work:

1. Locate the following on the given outline map of world:

- a) Ur
- b) Uruk
- c) Babylon
- d) Persian Gulf
- e) Mari
- f) Babylon

Economics

Prepare a project based on CBSE guidelines.

Suggested topics are-

1. Production possibility curve
2. Demand/Supply and its determinants
3. Production Function: Returns to a factor
4. Cost function and cost curves
5. Monopoly or perfect competition or monopolistic competition or oligopoly forms of market.
6. Price Floor and Price Ceiling
7. Study of Milk cooperatives (Amul, Mother dairy)
8. Changing consumer awareness amongst households
9. Global warming

Any other relevant topic such as HDI, GST, SHG, Dis-investment policy etc.

The project report should include : Title , Index , Introduction of the theme , Elaboration, Conclusion , Credits / List of resources used / Bibliography

Political Science

A. The recently concluded **Karnataka Assembly Elections 2018** were hotly contested. Many parties were in the fray and the results have been declared. Analyse this election and submit a project report by answering the following:

1. Analyze the importance of elections in a democratic country.
2. Profile the difference between General Elections and Assembly elections.
3. Name the parties that contested the Karnataka elections and their symbols (list National and Regional both)
4. Slogans used and highlights of their campaigns
5. Discuss the controversial and contentious issues that have been a part of the recent elections.
6. Analysis of result with help of piechart.

General Instructions:

1. It should be well researched and pictorial.
2. The project must have a table of contents.
3. Title page, acknowledgements, headings and sub-headings are a must.
4. Take a print(B&W) if project is presented as a ppt.
5. It must include relevant news clippings.

B. Read and revise the following chapters:

Chapter 1 – **Constitution why and how** – Functions of the constitution, Three factors for effective constitution, how the constitution was made, objective resolution, provisions borrowed from different constitutions, philosophy of the constitution.

Chapter 2 – **Rights in the Indian constitution** – Fundamental rights, NHRC, Directive Principles of State policy, Fundamental duties.

Chapter 1- **Introduction to the Political Theory**- Meaning of politics, need for Political theory, why should we study it?

C. Read the **newspaper daily**, especially the editorial page.

Psychology

Project on Different Methods of Psychological Enquiry- Based on NCERT Ch-2 Methods of Enquiry in Psychology

Physical Education

Ch1-Changing Trends and Careers in Physical Education

- Q1) Define physical education according to Brownell.
- Q2) What is sports journalism?
- Q3) List the careers in communication media.
- Q4) List the objectives of physical education and explain any one of them.
- Q5) Describe in detail the various physical education courses available in India.
- Q6) Elucidate any three soft skills required in the field of physical education.
- Q7) Name the careers available in the field of physical education in India. Discuss the performance-related careers in detail.

Q8) Write short notes on any two of the following:

- (a) Career in book writing.
- (b) Career in sports photography.
- (c) Career in sports industry.

Q9) Discuss the changing trends in physical education in India.

Ch2 Olympic Movement

Q1) What is Olympic Movement?

Q2) What are Olympic Awards? Write down the Olympic Oath.

Q3) What do you mean by 'CITIUS, ALTIUS and FORTIUS' ?

Q4) Briefly write about the awards of Ancient Olympic Games.

Q5) Discuss the main function of IOC.

Q6) Discuss about the symbol and motto of Modern Olympics Games.

Q7) Discuss the general rules related to the organisation of CBSE Sports competition.

Q8) Elucidate about the development of values through Olympic Movement.

Q9) Elucidate in detail about International Olympic Committee.

Q10) Explain about Rajiv Gandhi Khel Ratna Award in detail.

Ch3- Physical Fitness, Wellness and Lifestyle

Q1) What is the meaning of physical fitness and wellness?

Q2) Define flexibility and endurance.

Q3) What do you understand by coordinative abilities?

Q4) What do you understand by muscular endurance?

Q5) Discuss the role of maintaining a healthy weight in preventing health threats through lifestyle changes.

Q6) Discuss any three components of positive lifestyle.

Q7) Define strength and discuss its types in brief.

Q8) Define physical fitness and wellness. Elaborate the importance of physical fitness and wellness in detail.

Q9) What do you understand by the term 'lifestyle'? Elucidate the importance of positive/ healthy lifestyle in detail.

Q10) Discuss the components of health-related physical fitness in brief.

Q11) Last year, your school organised a programme, 'Run for Unity'. All the students and teachers of your school were involved in this race. Such runs promote unity, peace and harmony among the people. After covering a distance of two kilometers, one student suddenly experienced chest pain. He complained to a teacher regarding the pain. Immediately some of the teachers, who were running beside him, took him to the doctor for necessary check up. His blood pressure was measured and ECG was also performed. Doctor said that it was not due to heart problem. It was surely the problem of second wind which is a usual phenomenon for an individual who does not practice to run a race.

Based on the above passage, answer the following questions:

1. What is physical fitness?
2. What values did the teachers show by taking the student to the doctor immediately?
3. Was the student physically fit? Explain.

Applied Art

Q1. Describe the historical as well as artistic aspects of the following sculptures

- Male Torso
- Dancing Girl
- Mother Goddess

Q2. Explain the compositional aspects of rock painting

- 'Wizards Dance'
- Roaring Animal of Bhambetka

Q3. How have the paintings of pre-historic time helped us to understand the daily life activities and the state of mind of the people of that time? Explain with suitable example.

Q4. What are the aesthetical values found in the

- Earthenware of Indus Valley civilization.
- Unicorn bull of seals found in IVC

Mathematics

Q.1: If A is the void set ϕ then P(A) has just one element ϕ that is $P(\phi) = \{ \phi \}$, show that

$$n\{P\{P\{P(P(\phi))\}\} = 4$$

Q.2: Express $2 \cos 4x \sin 2x$ as an algebraic sum of sines and cosines.

Q.3: Show that:

$$\left. \begin{array}{l} \sin^2 \theta = \sin^2 \alpha \\ \cos^2 \theta = \cos^2 \alpha \\ \tan^2 \theta = \tan^2 \alpha \\ \cot^2 \theta = \cot^2 \alpha \\ \sec^2 \theta = \sec^2 \alpha \\ \operatorname{cosec}^2 \theta = \operatorname{cosec}^2 \alpha \end{array} \right\} = \cos 2\theta = \cos 2\alpha$$

Now find general solution of $\cos 2\theta = \cos 2\alpha$

$$[\text{Ans: } \theta = n\pi \pm \alpha]$$

Q.4: Show that $\tan 9^\circ - \tan 27^\circ - \tan 63^\circ + \tan 81^\circ = 4$

Q.5: The angles of a triangle are in the ratio 3:4:5. Find the smallest angle in degree and greatest in radian.

$$\left[\text{Ans: } 45^\circ, \frac{5\pi}{12} \text{ radians} \right]$$

Q.6: The distance of the moon from the earth is 38400 km . The angle of elevation moon on the earth through the eye of observer is $31'$ (31 minute). Find the diameter of the moon.

Hint: $[\because \text{angle is very small} \Rightarrow \text{Length of chord} = \text{length of arc} = \text{length of diameter} =$

$\text{Length of arc.}] \quad \left[\theta = \frac{l}{r} \right]$

$$\left[\text{Ans: } 3464 \frac{8}{63} \right]$$

Q.7: In a survey of 700 students in a college, 180 were listed as drinking Limca, 275 as drinking Mirinda and 95 were listed as both drinking Limca and Mirinda. Find how many students were drinking neither Limca nor Mirinda? [Ans: 340]

Q.8: If A and B are two sets such that $n(A \cup B) = 50$, $n(A) = 28$ and $n(B) = 32$, find $n(A \cap B)$. [Ans:

10]

Q.9: In a school there are 20 teachers who teach mathematics or physics. Of these, 12 teach mathematics and 4 teach physics and mathematics. How many teach physics? [Ans: 12]

Q.10: Let A and B be two sets such that: $n(A) = 20, n(A \cup B) = 42$ and $n(A \cap B) = 4$. Find :

(i) $n(B)$ [Ans: 26] (ii) $n(A - B)$ [Ans: 16] (iii) $n(B - A)$ [Ans: 22]

Q.11: A survey shows that 63% of the Americans like cheese, whereas 76% like apples. If $x\%$ of the Americans like both cheese and apples, find the value of x . [Ans: $39 \leq x \leq 63$]

Q.12: In a survey it was found that 21 persons liked product P_1 , 26 liked product P_2 and 29 liked product P_3 . If 14 persons liked product P_1 and P_2 ; 12 persons liked product P_3 and P_1 ; 14 persons liked product P_2 and P_3 and 8 liked all the three products. Find how many liked product P_3 only. [Ans: 11]

Q.13: In a survey of 100 students, the number of students studying various languages were found to be: English only 18, English but not Hindi 23, English and Sanskrit 8, English 26, Sanskrit 48, Sanskrit and Hindi 8, no language 24. Find:

(i) How many students were studying Hindi? [Ans: 18]

(ii) How many students were studying English and Hindi? [Ans: 3]

Q.14: In a school, there are an equal number of male and female teachers. If the total salary of the male members is sine of the number of male members and total salary of the female members is cosine of the number of female members. Represent the information in trigonometric form, if the total salary of all the teachers is Rs. 2,25,000. What value do you derive from this information? [Ans: $\sin x + \cos y = \text{Rs. } 2,25,000$; Since sine increases and cosine decreases from 0° to 90° , therefore, male teachers are earning more than female teachers. Article 14 of Indian Constitution bars discrimination only on the ground of sex.]

Q.15: Let A and B be two sets such that $n(A) = 5$ and $n(B) = 2$. If a, b, c, d, e are distinct and $(a, 2), (b, 3), (c, 2), (d, 3), (e, 2)$ are in $A \times B$, find A and B. [Ans: $A = \{a, b, c, d, e\}$ and $B = \{2, 3\}$]

Q.16: Find the domain and range of the following functions:

(i) $f(x) = x^2$ [Ans: $R: [0, \infty)$] (ii) $f(x) = \frac{3-x}{x-3}$ [Ans: $R - \{3\}; \{-1\}$]

(iii) $f(x) = \frac{x^2-1}{x-1}$ [Ans: $R - \{1\}; R - \{2\}$] (iv) $f(x) = \sqrt{9-x^2}$ [Ans: $[-3, 3]; [0, 3]$]

(v) $f(x) = \frac{|x-3|}{x-3}$ [Ans: $R - \{3\}; \{-1, 1\}$] (vi) $f(x) = \frac{1}{2 - \sin 3x}$ [Ans: $R; \left[\frac{1}{3}, 1\right]$]