

Holiday Assignment – Grade 12 (2017 -2018)

Subject: English

Read the lesson 'The Enemy' from the Supplementary text 'Vistas' and answer the questions that follow. (Prepare it in the form of a booklet –A4 size)

1. A brief study about the author – Pearl S. Buck.
2. The settings and background of the story – The Enemy.
3. Give brief pen pictures of the a. **major characters**, b. **minor characters**.
4. Theme of the story
5. Discuss the different roles of Sadao –a son, a doctor, a husband, a human being, a patriot.
6. Discuss the attitude of the General based on a. Human consideration, b. lack of national loyalty, c. dereliction of duty, d. Self absorption.
7. The doctor's final solution to the problem was the best possible one in the circumstance. Do you Agree/ Disagree? Why/ Why not?
8. There are moments in life when we have to make hard choices between our role as private individuals and as citizens with a sense of national loyalty. Discuss with reference to 'The Enemy'.
9. Suggest a different ending for the story – 'The Enemy'.
10. Make a cover page for the story 'The Enemy' .

...Happy Vacation...

HOLIDAY ASSIGNMENT

CLASS 12

MATHEMATICS

I. Inverse Trigonometric Functions

1. Write the principal value of (i) $\cos^{-1}\left(\cos\frac{7\pi}{6}\right)$

(ii) $\tan^{-1}\sqrt{3} - \sec^{-1}(-2)$

2. Prove that (i) $2\tan^{-1}\left(\frac{1}{2}\right) + \tan^{-1}\left(\frac{1}{7}\right) = \sin^{-1}\frac{31}{25\sqrt{2}}$

(ii) $\cot^{-1}\left(\frac{\sqrt{1+\sin x} + \sqrt{1-\sin x}}{\sqrt{1+\sin x} - \sqrt{1-\sin x}}\right) = \frac{x}{2}, x \in \left(0, \frac{\pi}{4}\right)$

(iii) $\frac{9\pi}{8} - \frac{9}{4}\sin^{-1}\frac{1}{3} = \frac{9}{4}\sin^{-1}\frac{2\sqrt{2}}{3}$

(iv) $\cot^{-1}7 + \cot^{-1}8 + \cot^{-1}18 = \cot^{-1}3$

(v) $2\tan^{-1}\left(\frac{1}{5}\right) + \sec^{-1}\left(\frac{5\sqrt{2}}{7}\right) + 2\tan^{-1}\left(\frac{1}{8}\right) = \frac{\pi}{4}$

(vi) $\cos\left(\sin^{-1}\frac{3}{5} + \cot^{-1}\frac{3}{2}\right) = \frac{6}{5\sqrt{13}}$

(vii) $\tan\left(\frac{\pi}{4} + \frac{1}{2}\cos^{-1}\frac{a}{b}\right) + \tan\left(\frac{\pi}{4} - \frac{1}{2}\cos^{-1}\frac{a}{b}\right) = \frac{2b}{a}$

(viii) $\tan^{-1}\sqrt{x} = \frac{1}{2}\cos^{-1}\left(\frac{1-x}{1+x}\right), x \in (0,1)$

(xi) $\tan^{-1}x + \tan^{-1}\left(\frac{2x}{1-x^2}\right) = \tan^{-1}\left(\frac{3x-x^3}{1-3x^2}\right)$

3. Solve

$$(i) \tan^{-1}(x-1) + \tan^{-1} x + \tan^{-1}(x+1) = \tan^{-1} 3x$$

$$(ii) \cos^{-1}\left(\frac{x^2-1}{x^2+1}\right) + \tan^{-1}\left(\frac{2x}{x^2-1}\right) = \frac{2\pi}{3}$$

$$(iii) 2 \tan^{-1}(\sin x) = \tan^{-1}(2 \sec x), x \neq \frac{\pi}{2}$$

II. Matrices and Determinants

1. If $A = \begin{bmatrix} \cos x & \sin x \\ -\sin x & \cos x \end{bmatrix}$, find x , $0 < x < \frac{\pi}{2}$ when $A + A' = I$

2. Using elementary transformations, find the inverse of the matrix $\begin{bmatrix} 1 & 3 & -2 \\ -3 & 0 & -5 \\ 2 & 5 & 0 \end{bmatrix}$.

3. Find the values of x and y if: $2 \begin{bmatrix} 1 & 3 \\ 0 & x \end{bmatrix} + \begin{bmatrix} y & 0 \\ 1 & -2 \end{bmatrix} = \begin{bmatrix} 5 & 6 \\ 1 & 8 \end{bmatrix}$.

4. Evaluate: $\begin{vmatrix} a+ib & c+id \\ -c+id & a-ib \end{vmatrix}$

5. Using properties of determinants prove the following:

$$\begin{vmatrix} \alpha & \beta & \gamma \\ \alpha^2 & \beta^2 & \gamma^2 \\ \beta+\gamma & \gamma+\alpha & \alpha+\beta \end{vmatrix} = (\alpha-\beta)(\beta-\gamma)(\gamma-\alpha)(\alpha+\beta+\gamma).$$

6. Using properties of determinants prove the following:

$$\begin{vmatrix} 1+a^2-b^2 & 2ab & -2b \\ 2ab & 1-a^2+b^2 & 2a \\ 2b & -2a & 1-a^2-b^2 \end{vmatrix} = (1+a^2+b^2)^3.$$

7. Using properties of determinants prove the following:

$$\begin{vmatrix} 1 & a^2 + bc & a^3 \\ 1 & b^2 + ca & b^3 \\ 1 & c^2 + ab & c^3 \end{vmatrix} = -(a-b)(b-c)(c-a)(a^2 + b^2 + c^2).$$

8. Solve for x: $\begin{vmatrix} 3x-8 & 3 & 3 \\ 3 & 3x-8 & 3 \\ 3 & 3 & 3x-8 \end{vmatrix} = 0.$

$$2x + 3y + 3z = 5$$

9. Using matrices, solve the following system of linear equations: $x - 2y + z = -4$

$$3x - y - 2z = 3$$

III. Continuity and Differentiability

1. Show that the function f defined by $f(x) = \begin{cases} 3x-2, & 0 < x \leq 1 \\ 2x^2-x, & 1 < x \leq 2 \\ 5x-4, & x > 2 \end{cases}$

2. For what value of 'k' is the following function continuous at $x=2$?

$$f(x) = \begin{cases} 2x+1, & x < 2 \\ k, & x = 2 \\ 3x-1, & x > 2 \end{cases}$$

3. Find the relationship between 'a' and 'b' so that the function 'f' defined by

$$f(x) = \begin{cases} ax+1, & x \leq 3 \\ bx+3, & x > 3 \end{cases} \text{ is continuous at } x=3.$$

4. Show that the function $f(x) = |x-3|, x \in R$ is continuous but not differentiable at $x=3$.

5. Differentiate with respect to x.

a. $(\sin x)^x + (\cos x)^{\sin x}$

b. $(\log x)^x + x^{\log x}$

c. $(\sin x)^x + \sin^{-1} \sqrt{x}$

d. $\tan^{-1} \left[\frac{\sqrt{1+x^2} - 1}{x} \right]$

e. $\sqrt{\frac{(x-3)(x^2+4)}{3x^2+4x+5}}$

6. If $y = \sqrt{\frac{(x-3)(x^2+4)}{3x^2+4x+5}}$ then find $\frac{dy}{dx}$.

7. If $x = a \sin 2t(1 + \cos 2t)$ and $y = b \cos 2t(1 - \cos 2t)$, then show that $\left(\frac{dy}{dx}\right)_{t=\frac{\pi}{4}} = \frac{b}{a}$

8. If $x^{13}y^7 = (x+y)^{20}$, then prove that $\frac{dy}{dx} = \frac{y}{x}$

9. If $x^m y^n = (x+y)^{m+n}$ then prove that $\frac{dy}{dx} = \frac{y}{x}$

10. Prove that $\frac{d}{dx} \left[\frac{x}{2} \sqrt{a^2 - x^2} + \frac{a^2}{2} \sin^{-1} \frac{x}{a} \right] = \sqrt{a^2 - x^2}$

11. If $x = a \cos \theta + b \sin \theta$ and $y = a \sin \theta - b \cos \theta$, then show that $y^2 \frac{d^2 y}{dx^2} - x \frac{dy}{dx} + y = 0$.

12. If $y = e^x (\sin x + \cos x)$ then show that $\frac{d^2 y}{dx^2} - 2 \frac{dy}{dx} + 2y = 0$.

13. If $y = \log \left[x + \sqrt{x^2 + a^2} \right]$, show that $(x^2 + a^2) \frac{d^2 y}{dx^2} + x \frac{dy}{dx} = 0$.

14. If $x = a(\cos t + t \sin t)$ and $y = a(\sin t - t \cos t)$, $0 < t < \frac{\pi}{2}$, find $\frac{d^2 y}{dt^2}$, $\frac{d^2 y}{dt^2}$ and $\frac{d^2 y}{dx^2}$.

15. If $x = a \sin t$ and $y = a \left(\cos t + \log \tan \frac{t}{2} \right)$ then find $\frac{d^2 y}{dx^2}$.

IV. Application of Derivatives

Exercise 6.5 Q.No. 17 - 29 and Exercise 6.6 Q.No 8 - 18

HOLIDAY ASSIGNMENT

CLASS X11

PHYSICS

CHAPTER – 8 . Electromagnetic waves

Write short notes on:-

Applications and uses of various electromagnetic waves.

Electromagnetic spectrum.

HOLIDAY ASSIGNMENT.
Class XII - Chemistry.

Prepare notes on polymers and Chemistry in Everyday Life

SUMMER HOLIDAY ASSIGNMENT

BIOLOGY XII

1. Environmental Issues
2. National Parks and Wild Life Sanctuaries in India
3. Biodiversity
4. Record work to be completed as per discussed in class

ACCOUNTANCY CLASS XII HOLIDAY ASSIGNMENT 2017 - 2018
QUESTIONS FROM T.S.GREWAL DOUBLE ENTRY BOOK KEEPING 2017 EDITION

S.N	TOPIC	QUESTION NUMBERS	PAGE NO
1	BASIC CONCEPTS	67 TO 73	1.91 - 1.93
		86 TO 92	1.95 - 1.96
	VALUE BASED QUESTIONS	1 TO 5	1.96 - 1.97
2	CHANGE IN PSR	28 TO 31	3.38 - 3.39
3	ADMISSION	23 TO 29 , 31, 32	S.50 - S.59
4	RETIREMENT	15, 16, 17, 19, 20	S.70 - S.75
		49, 50	5.90 - 5.91
5	DEATH	77,78	5.100 - 5.101
		25 TO 34	S.75 - S.87
6	DISSOLUTION	10 TO 15	S.99 - S.103

Class XII
Business Studies

(2017- 2018)

Project 1

Analysis of scientific management principles by F.W.Taylor and administrative principles by Henry Fayol and their implementation in real life at Indomie Factory, Dammam

Presentation and Submission of Project Report

Following essentials are required to be fulfilled for the preparation and submission of the project:

1. The total length of the project will be of 30to 35 pages.
2. The project should be handwritten.
3. The project should be presented neatly in spiral bound book form
4. The project report should be developed in the following sequence-
 - Cover page should include the title of the Project, student information, school and year. (can be typed)
 - Certificate (typed)
 - List of contents.
 - Acknowledgements and preface (acknowledging the institution, the places visited and the persons who have helped). (typed)
 - Introduction.
 - Topic with suitable heading.
 - Photographs or relevant pictures
 - Appendix

Last date for submission of the project: September 14th 2017

List of Contents

- **About Indomie**
- **Your experience and Observations at Indomie**
- **Henry Fayol – a brief profile**
- **Principles of General Management**
- **Application of principles of Fayol at Indomie**
- **Questionnaire 1**
- **F.W.Taylor – a brief profile**
- **Principles and techniques of scientific management**
- **Application of principles and techniques of Taylor at Indomie**
- **Questionnaire 2**
- **Conclusion**
- **References**

Marketing Project: 2
CLASS - XII
Packaging

You are required to identify the following :

- 1) The levels of packaging
- 2) Timeline of packaging developments
- 3) Innovations in packaging regarding the following :
 - a) The changes in transportation of fruits and vegetables such as cardboard crates being used in place of wooden crates, etc. Reasons for above changes.
 - b) Milk being supplied in glass bottles, later in plastic bags and now in tetra pack and through vending machines.
 - c) Plastic furniture [doors and stools] gaining preference over wooden furniture.
 - d) The origin of cardboard and the various stages of changes and growth.
 - e) Brown paper bags packaging to recycled paper bags to plastic bags and cloth bags.
 - f) Re use of packaging [bottles, jars and tins] to attract customers for their products.
 - g) The concept of pyramid packaging for milk.

- 4) Types of Packaging : consumer package ,bulk package industrial and dual use package (including shrink wrap, vaccum packaging, shock mount packaging etc.)
- 5) Cost being borne by the consumer/manufacturer.
- 6) Branding through Packaging
- 7) Advertising through Packaging
- 8) Materials used for packaging.

Presentation and Submission of Project Report

Following essentials are required to be fulfilled for the preparation and submission of the project:

1. The total length of the project will be of 20 to 25 pages.
2. The project should be handwritten.
3. The project should be presented in a neat folder.
4. The project report should be developed in the following sequence-
 - Cover page should include title of Project, student Information, school & 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
- Conclusions (summarized suggestions or findings, future scope of study).
- Photographs or relevant pictures
- Appendix

Last date for submission of the project: September 10th 2017

Certificate

This is to certify that Ms.....of Class XII.....of
International

Indian School, Dammam has completed her project file under my
supervision.

She has taken proper care and shown utmost sincerity in the completion of
the project. I certify that this project is upto my expectations and as per
guidelines issued by the CBSE.

.....

Signature

Internal Examiner

.....

Signature

External Examiner

Leena Saluja

INTERNATIONAL INDIAN SCHOOL DAMMAM

ECONOMICS CLASS XII

PROJECT 2017-18

TOPIC- MONOPOLISTIC COMPETITION

Monopolistic competition refers to a market situation in which there are large number of firms which sell closely related but differentiated products

Example products like soap, tooth paste, automobile industry, soft drinks, tea etc..

MODE OF PRESENTATION

The project should contain a minimum of 25 pages :

First page : Name of the student, Class and section, Year, Name of the project, class roll number

Second Page ----- Certificate

Third page ----- Preface

Fourth Page- - Acknowledgement

Fifth page ----- contents with page number

Scope of the project (Any 3 products)

Following essentials are required to be fulfilled in the project :

- Meaning and definition
- Application of the concept
- Diagrammatic explanation
- Numerical explanations related to concepts
- Students own views/ perceptions /opinions and learning from the topic.

Eco-Coordinator

Jancy John Joseph



HOLIDAY ASSIGNMENT
HOME SCIENCE – CLASSES XI & XII

Complete the Practical Record

Complete the Project work & submit after the holidays

Munshi

HSc Coordinator

INTERNATIONAL INDIAN SCHOOL, DAMMAM

Girls Secondary Section

Holiday Assignment 2017-18

Computer Science - Class XII

Write short notes on the following concepts:

Evolution of Networking: ARPANET, Internet, Interspace Different ways of sending data across the network with reference to switching techniques (Circuit and Packet switching).

Data Communication terminologies: Concept of Channel, Bandwidth (Hz, KHz, MHz) and Data transfer rate (bps, Kbps, Mbps, Gbps, Tbps).

Transmission media: Twisted pair cable, coaxial cable, optical fiber, infrared, radio link, microwave link and satellite link.

Network devices: Modem, RJ45 connector, Ethernet Card, Router, Switch, Gateway, wifi card.

Network Topologies and types: Bus, Star, Tree, PAN, LAN, WAN, MAN.

Network Protocol: TCP/IP, File Transfer Protocol (FTP), PPP, SMTP, POP3 Remote Login (Telnet), and Internet Wireless/Mobile Communication protocol such as GSM, CDMA, GPRS, and WLL.

Mobile Telecommunication Technologies : 1G, 2G, 3G and 4G; Mobile processors;

Electronic mail protocols such as SMTP, POP3

Protocols for Chat and Video Conferencing VOIP

Wireless technologies such as Wi-Fi and WiMax

Network Security Concepts:

Threats and prevention from Viruses, Worms, Trojan horse, Spams

Use of Cookies, Protection using Firewall, https;

India IT Act, Cyber Law, Cyber Crimes, IPR issues, hacking.

Introduction To Web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML); Hyper Text Transfer Protocol (HTTP); Domain Names; URL; Website, Web browser, Web Servers; Web Hosting, Web Scripting - Client side (VB Script, Java Script, PHP) and Server side (ASP, JSP, PHP), Web 2.0 (for social networking)

E-commerce payment transactions using online banking, mobile banking and payment apps and services.

Handwritten copies to be submitted by September 30.

INTERNATIONAL INDIAN SCHOOL, DAMMAM

Girls Secondary Section

Holiday Assignment

Informatics Practices - Class XII

1. Students are required to develop a project using Java Netbeans and MySql. The project should be an application in any one of the following domains : e-Governance/e-Business/e-Learning (with GUI front-end and corresponding back-end).

INTERNATIONAL INDIAN SCHOOL, DAMMAM

Girls Secondary Section

Holiday Assignment

POLITICAL SCIENCE - Class XII

Students are required to make a POWERPOINT PRESENTATION (PPT)

OR A BOOKLET for ANY ONE of the following topics.

- a. Globalisation
- b. Challenges of Nation Building
- c. India's External Relations
- d. Rise of Popular Movements
- e. Recent Developments in Indian Politics.

Holiday Assignment (2017-18)

Class XII

Subject Psychology

Develop a Case Profile

The main objective of preparing a case profile is to understand the individual in totality. This would further help in establishing the cause and effect relationship more accurately. Prepare a case profile of an individual-

- A) Who has excelled in areas like sports, academics, music etc.
- B) Having special needs like Learning disability, Autism, Down's syndrome etc.
- C) Those with interpersonal social problems i.e, poor body image, obesity, temper tantrums, substance abuse, not getting along with peers, withdrawn etc.

Find out the background information and developmental history of the individual.

Suggested format:

Kindly refer: CBSE Psychology Text Book CLASS XII –NCERT Publication. Page No. 199

Submit your case profile by September 17th 2017.

Holiday Assignment (2017-18)

Class XII

Subject Psychology

Develop a Case Profile

The main objective of preparing a case profile is to understand the individual in totality. This would further help in establishing the cause and effect relationship more accurately. Prepare a case profile of an individual-

- D) Who has excelled in areas like sports, academics, music etc.
- E) Having special needs like Learning disability, Autism, Down's syndrome etc.
- F) Those with interpersonal social problems i.e, poor body image, obesity, temper tantrums, substance abuse, not getting along with peers, withdrawn etc.

Find out the background information and developmental history of the individual.

Suggested format:

Kindly refer: CBSE Psychology Text Book CLASS XII –NCERT Publication. Page No. 199

Submit your case profile by September 17th 2017.

GEOGRAPHY

CLASS XII POWER POINT PRESENTATION TOPICS 2017-18

1. AGRICULTURE [CEREALS AND PULSES]
2. AGRICULTURE [FIBRE CROPS]
3. AGRICULTURE [TEA AND COFFEE]
4. GREEN REVOLUTION AND THE IMPACTS
5. PROBLEMS OF INDIAN AGRICULTURE
6. RAIN WATER HARVESTING
7. CLASSIFICATION OF MINERALS – NON METALLIC [COAL, PETROLEUM & NATURAL GAS]
8. NON CONVENTIONAL SOURCES OF ENERGY
9. CLASSIFICATION OF INDUSTRIES
10. COTTON TEXTILE INDUSTRY
11. IRON AND STEEL INDUSTRY
12. SUGAR INDUSTRY
13. LIBERALISATION, PRIVATIZATION AND GLOBALISATION
14. SUSTAINABLE DEVELOPMENT
15. INDIRA GANDHI CANAL PROJECT
16. LAND TRANSPORT [ROADWAYS]
17. LAND TRANSPORT [RAILWAYS]
18. LAND TRANSPORT [WATERWAYS]
19. LAND TRANSPORT [AIRWAYS]
20. IMPORTS AND EXPORTS
21. SEA PORTS
22. WATER POLLUTION
23. AIR POLLUTION
24. NOISE POLLUTION
25. LAND DEGRADATION AND URBAN WASTE DISPOSAL
26. SLUMS AND THEIR PROBLEMS
27. TOURISM OF INDIA
28. TYPES OF SETTLEMENTS [RURAL]
29. TYPES OF SETTLEMENTS [URBAN]
30. WATER SHED MANAGEMENT
31. OILSEEDS
32. COMMUNICATION
33. MIGRATION AND CONSEQUENCES
34. NUCLEAR ENERGY
35. TOURISM OF SAUDI ARABIA
36. TOURISM OF ASIA
37. TOURISM OF EUROPE
38. TOURISM OF AFRICA
39. RIVER POLLUTION
40. CLASSIFICATION OF TOWNS
41. CLASSIFICATION OF MINERALS – METALS
42. TOURISM OF NORTH AMERICA

SUMMER HOLIDAY ASSIGNMENT 2017

BIOTEC CLASS -12

- PROJECT WORK TO BE COMPLETED
- PREVIOUS YEAR QUESTION PAPER
- NUMERICALS

SUMMER HOLIDAY ASSIGNMENT 2017

BIOTEC CLASS -11

- RECORD WORKS TO BE COMPLETED
- DRAW THE STRUCTURE OF BIOMOLECULES IN A4 SHEET PAPER