ENGLISH

SUMMER HOLIDAY HOMEWORK
CLASS-XII

Writing Project

Creative Writing is a subjective creation of a picture of the world. is an expression of the realisation of the joys and sorrows, as well as a way to let one's imagination run wild. Creativity is multidimensional. It can be a trait, skill, ability, or an approach, or all of these. Writing skills are an important part of communication. Good writing skills allow you to communicate your message with clarity and ease.

Write a short story /a poem / an article on any theme. The write-up should be presented on A-4 size sheets.

The write-ups should be original. The stories/poems will be published in the school magazine as well as get a chance to feature on ‘Tell Me Your Story’-a blog which encourages young writers.

GDGPS

Summer Holiday Home Work (2018-19)

Class: XII

Subject: Economics

Sandeep Garg's Micro Economics Book:-

Scanner: Unit 2: Consumer's Equilibrium and Demand

From Page No. R.2 to Page No. R.7 (Q.No.1 to Q.No.54)

G.D.Goenka Public School, Siliguri.

Holiday homework:

Class= 12 Hum.

Subject: Geography

Map Activities: Prepare a folder :(Use colors and Index)

HUMAN GEOGRAPHY

1. Chapter 2 to 4

- Largest and smallest country of each continent in area.
- Countries having smallest and largest population of each continent.
- Countries having low/high growth rate of population.
- Area having low/high density of population of each continent

INDIA-PEOPLE AND ECONOMY

1. Chapter 1to 4:

- States having largest and smallest area.
- States having largest and smallest population.
- States having highest and lowest density of population 2011.
- States having highest and lowest growth rate of population 2011.
- States having highest and lowest rural population 2011.
- States having highest and lowest urban population 2011.
- States having highest and lowest participation rate.
- States having highest and lowest literacy rate.
- States having highest and lowest female literacy rate.

Class XII, Hindi Holiday Homework 2018-19

- नमक एवं डायरी के पन्ने अध्याय को पढ़कर मुख्य पात्रों के बारे में जानकारी प्राप्त करें और कक्षा में चर्चा करें।

G.D.Goenka Public School, Siliguri

History Holiday Home Work

Class- XII

Session 2018-19

Make a Project on any one of the topics listed below-

1. The Harappan Civilisation.
2. Buddha's Path to Enlightenment.
3. Accounts of India as left by any foreign traveller. (Any one)
4. Bhakti and Sufi Movements.
5. The Revolt of 1857.
6. "Mahatma Gandhi"- A legendary soul.

- Present your project in lace files (practical files).
- Use appropriate pictures to illustrate your project work.

G.D.GOENKA PUBLIC SCHOOL, SILIGURI
SUMMER HOLIDAY HOMEWORK
CLASS :XII
Subject – Informatics Practices (065)

Students will be making a power point presentation on Network and Communication systems. The various topics which should be covered in the project are as follows:

- Types of Transmission Media (Both Guided and Unguided). It should contain a detailed study of the various methods of the equipment and the connectivity methods.
- Topology and its various types.(Along with the diagrams)
- Types of Network (LAN, MAN, WAN, PAN, CAN)
- Protocols and its various types and functions.
- Network Devices(Repeater, Hub, Switch, Modem etc.)

Note: The project work has to be in the form of PPT only. More emphasis to be put on flowchart and images. The soft copy of the PPT is to be brought in a pen drive.

SUMMER HOLIDAY HOMEWORK
CLASS XII
MATHEMATICS

Chapter: - Matrix and Determinants

1 marks question

Q1. Find total number of possible matrices of order 3x3 with each entry 2 or 0. Ans. 512.

Q2.IfA=$\begin{bmatrix} 4 & 2 \\ -1 & 1 \end{bmatrix}$ then find (A-2I)(A-3I). Ans. 0 . Q3. Evaluate $\begin{vmatrix} \sin x & \cos x \\ \cos x & \sin x \end{vmatrix}$ When x=π/6 Ans . -1/2.

Q4.If for matrix A, $|A|$ =3, Find $|4A|$, Where matrix A is of order 2x2. Ans. 48

Q5.Construct a 2x3 matrix whose element is given by $a_{ij}=\frac{1}{2}|-3i+j|$ Ans. $\begin{bmatrix} 1 & \frac{1}{2} & 0 \\ \frac{5}{2} & 2 & \frac{3}{2} \end{bmatrix}$

Q6.IfA=$\begin{bmatrix} \cos x & -\sin x \\ \sin x & \cos x \end{bmatrix}$ then find x such that A+A'=I. Ans. π/3.

Q7If A=$\begin{bmatrix} 0 & a & 3 \\ 2 & b & -1 \\ c & 1 & 0 \end{bmatrix}$ is a skew symmetric matrix, find the values of a,b and c. Ans . -2, 0,-3,

Q8.If A= [3 5], B= [7 3], then find non -zero matrix such that AC=BC. Ans. $\begin{bmatrix} k \\ 2k \end{bmatrix}$, Where k is any real number.

Q9. Solve for x,y such that $x\begin{bmatrix} 2 \\ 1 \end{bmatrix}+y\begin{bmatrix} 3 \\ 5 \end{bmatrix}+\begin{bmatrix} -8 \\ -11 \end{bmatrix}=0$,Ans. 1,2 Q10. If $\begin{vmatrix} 2 & x \\ x & 2 \end{vmatrix}$=0 then find x. Ans. ±2

Q11. If $\begin{bmatrix} 2x & 3 \end{bmatrix}\begin{bmatrix} 1 & 2 \\ -3 & 0 \end{bmatrix}\begin{bmatrix} x \\ 8 \end{bmatrix}=0$, find the value of x, Ans.-23/2.

Q12. The area of a triangle with vertices(-3,0),(3,0)and (0,k)is 9sq. units then find k Ans. 3.

Q13. Show that the points (a+5, a-4), (a-2, a+3) and (a, a) do not lie on straight line.

Q14.Find maximum value of $\begin{vmatrix} 1 & 1 & 1 \\ 1 & 1+\sin x & 1 \\ 1 & 1 & 1+\cos x \end{vmatrix}$, Ans. 1/2

Q15. If A is 3x3 matrix, |adjA|=16, find |A|, Ans. ±4

4/6 marks question

Q16.If A=$\begin{bmatrix} 2 & -1 & 0 \\ 4 & 7 & 8 \\ -3 & 1 & 3 \end{bmatrix}$,B=$\begin{bmatrix} 2 & 0 & 6 \\ 1 & -8 & 2 \\ -5 & 4 & 7 \end{bmatrix}$,C= $\begin{bmatrix} 0 & 9 & 3 \\ 5 & 8 & 8 \\ -3 & 6 & 3 \end{bmatrix}$,D=$\begin{bmatrix} 2 & -1 & 7 \\ 4 & 1 & 8 \\ 7 & 3 & 0 \end{bmatrix}$,then verify the following identities:-(i) A+B=B+A (ii)A+(B+D)=(A+B)+D (iii)(A+C)'=A'+C' (iv)A'+B'=B'+A' (v)(5D)'=5D' (vi)(AB)'=B'A' .

P.T.O.

(vii)(A')'=A (viii)((A')')'=A'(ix) AB≠BA (x)CD≠DC (xi)(AC)'=C'A' (xii) (BD)'=D'B' (xiii)$(A^{-1})'=(A')^{-1}$

(xiv) $(AB)^{-1}=B^{-1}A^{-1}$ (xv) $C^{-1}D^{-1} \neq D^{-1}C^{-1}$

Q17.If $\begin{bmatrix} xy & 4 \\ z+6 & x+y \end{bmatrix} = \begin{bmatrix} 8 & w \\ 0 & 6 \end{bmatrix}$ then find the values of x,y,z,w, Ans. 4,2 ,-6,-4 or2,4,-6,-4,

Q18. Express (i) $\begin{bmatrix} 1 & 3 & 5 \\ -6 & 8 & 3 \\ -4 & 6 & 5 \end{bmatrix}$ (ii) $\begin{bmatrix} 6 & 7 \\ -2 & 1 \end{bmatrix}$ as a sum of symmetric and skew symmetric matrices.

Ans. (i) $\begin{bmatrix} 1 & \frac{-3}{2} & \frac{1}{2} \\ \frac{-3}{2} & 8 & \frac{9}{2} \\ \frac{1}{2} & \frac{9}{2} & 5 \end{bmatrix} + \begin{bmatrix} 0 & \frac{9}{2} & \frac{9}{2} \\ \frac{-9}{2} & 0 & \frac{-3}{2} \\ \frac{-9}{2} & \frac{3}{2} & 0 \end{bmatrix}$, (ii) . $\begin{bmatrix} 6 & \frac{5}{2} \\ \frac{5}{2} & 1 \end{bmatrix} + \begin{bmatrix} 0 & \frac{9}{2} \\ \frac{-9}{2} & 0 \end{bmatrix}$.

Q19.By ET find Inverse of (i) $\begin{bmatrix} 2 & 3 & -3 \\ -1 & -2 & 2 \\ 1 & 1 & -1 \end{bmatrix}$ Ans. Does not exist. (ii) $\begin{bmatrix} 4 & 3 \\ 3 & 2 \end{bmatrix}$ Ans. $\begin{bmatrix} -2 & 3 \\ 3 & -4 \end{bmatrix}$

Q20.**Using the matrix method solves the following system of linear equations.** x+ y+z = 6, y +3 z =**11**, x + z = 2y,Ans. **1**,2,3

Q21.If A= $\begin{bmatrix} 1 & 2 & 0 \\ -2 & -1 & -2 \\ 0 & -1 & 1 \end{bmatrix}$ find A^{-1} hence solve the system of following linear equations:-

(i)x-2y-10=0,2x-y-z-8=0,2y-z+7=0. Ans. 0,-5,-3 (ii)x+2y=3,2x+y+2z=5,y-z=0. Ans. 1, 1, 1

Q22.If A= $\begin{bmatrix} 2 & 2 & -4 \\ -4 & 2 & -4 \\ 1 & -1 & 5 \end{bmatrix}$ and B= $\begin{bmatrix} 1 & -1 & 0 \\ 2 & 3 & 4 \\ 0 & 1 & 2 \end{bmatrix}$ find AB and BA hence solve the system of linear equations:-

Y+2z=**7**,x-y=3,2x+3y+**4**z=**17**, Ans. 2,-**1**,**4**,

Q23. **Using the property of determinant, prove that following**

(i) $\begin{vmatrix} 1 & 1+p & 1+p+q \\ 2 & 3+2p & 4+3p+2q \\ 3 & 6+3p & 10+6p+3q \end{vmatrix} = 1$ *(ii)* $\begin{vmatrix} (a-x)^2 & (a-y)^2 & (a-z)^2 \\ (b-x)^2 & (b-y)^2 & (b-z)^2 \\ (c-x)^2 & (c-y)^2 & (c-z)^2 \end{vmatrix}$ = 2(a-b) (b-c) (c-a) (x-y) (y-z) (z-x)

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

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

CHAPTER : INVERSE TRIGONOMETRIC FUNCTIONS

Q1. Find the principal values of the following:- (i) $\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$ Ans. $\frac{\pi}{6}$.

(ii) $\tan^{-1}\left(\tan\frac{2\pi}{3}\right)$ Ans. $-\frac{\pi}{3}$. (iii) $\cos^{-1}[\cos(-680^0)]$ Ans. $\frac{2\pi}{9}$.

(iv) $\sin^{-1}\left[\cos\left(\sin^{-1}\frac{1}{2}\right)\right]$ Ans. $\frac{\pi}{3}$. (v) $\sin^{-1}\left[\cos\left(\frac{43\pi}{5}\right)\right]$ Ans. $-\frac{\pi}{10}$.

(vi) $\tan^{-1}\left(\sin\left(-\frac{\pi}{2}\right)\right)$ Ans. $-\frac{\pi}{4}$. (vii) $\tan^{-1}(\tan(-4))$ Ans. -4

Q2.Evaluate:- (i) $\cos\left(\cos^{-1}\left(-\frac{\sqrt{3}}{2}\right)+\frac{\pi}{6}\right)$ Ans. -1 (ii) $\sin\left(\frac{\pi}{2}-\sin^{-1}\left(-\frac{\sqrt{3}}{2}\right)\right)$ Ans. 1

Q3. Find the value of cot ($\sin^{-1}x$) Ans. $\frac{\sqrt{1-x^2}}{x}$ Q4.Find the domain of $\sin^{-1}2x$ Ans. $\left[-\frac{1}{2}\quad\frac{1}{2}\right]$

Q5. Find the domain of $\sin^{-1}(-x^2)$ Ans. $[-1\quad 1]$ Q6. Find the domain of $\sin^{-1}(x)+\cos x$ Ans. $[-1\quad 1]$

Q7. Find the greatest and least values of $\left(\sin^{-1}x\right)^2+\left(\cos^{-1}x\right)^2$ Ans. $\frac{5\pi^2}{4}\quad,\frac{\pi^2}{8}$

Q8. Prove that $\tan^{-1}\left(\frac{1}{4}\right)+\tan^{-1}\left(\frac{2}{9}\right)=\frac{1}{2}\cos^{-1}\left(\frac{3}{5}\right)=\sin^{-1}\left(\frac{1}{\sqrt{5}}\right)$.

Q9. Find the domain of $\cos^{-1}(x^2-4)$ Ans. $\left[\sqrt{5}\quad-\sqrt{3}\right]\cup\left[\sqrt{3}\quad\sqrt{5}\right]$

4/6 marks question

Q10. Prove that $2\sin^{-1}\frac{3}{5}-\tan^{-1}\frac{17}{31}=\frac{\pi}{4}$ Q11. Show that $\cos\left(2\tan^{-1}\frac{1}{7}\right)=\sin\left(4\tan^{-1}\frac{1}{3}\right)$

Q12. Prove that $\cot\left(\frac{\pi}{4}-2\cot^{-1}(3)\right)$ =7 Q13. Show that $2\left(\tan^{-1}(-3)\right)=-\frac{\pi}{2}+\tan^{-1}\left(-\frac{4}{3}\right)$

Q14. $\tan^{-1}\left[\frac{\sqrt{1+x^2}-\sqrt{1-x^2}}{\sqrt{1+x^2}+\sqrt{1-x^2}}\right]=\alpha$ then prove that $x^2=\sin 2\alpha$.

Q15. Prove that $\tan^{-1}\left[\frac{\sqrt{1+x^2}+\sqrt{1-x^2}}{\sqrt{1+x^2}-\sqrt{1-x^2}}\right]=\frac{\pi}{4}+\frac{1}{4}\cos^{-1}x^2$

P.T.O.

Q16. Prove that $\cot^{-1}\left(\frac{ab+1}{a-b}\right) + \cot^{-1}\left(\frac{bc+1}{b-c}\right) + \cot^{-1}\left(\frac{ca+1}{c-a}\right) = 0$.

Q17. If $\tan^{-1}(x) + \tan^{-1}(y) + \tan^{-1}(z) = \frac{\pi}{2}$ then prove that xy + yz + zx =1

Q18. If $\tan^{-1}(x) + \tan^{-1}(y) + \tan^{-1}(z) = \pi$ then prove that x + y + z =xyz

Q19. Write following function in simplest form: - (i) $\tan^{-1}\left(\sqrt{\frac{a-x}{a+x}}\right) \forall x \in (-a, a)$. Ans. $\frac{1}{2}\cos^{-1}\frac{x}{a}$

(ii) $\cos^{-1}\left(\frac{x}{\sqrt{x^2+a^2}}\right)$. Ans. $\cot^{-1}\frac{x}{a}$ (iii) $\sin^{-1}\left(\frac{x}{\sqrt{x^2+a^2}}\right)$. Ans. $\tan^{-1}\frac{x}{a}$

Q20.Prove that;- $\cos^{-1} x = 2\sin^{-1}\sqrt{\frac{1-x}{2}} = 2\cos^{-1}\sqrt{\frac{1+x}{2}} \forall |x| \le 1$

Q21.Show that: - $\cot^{-1}(7) + \cot^{-1}(8) + \cot^{-1}(18) = \cot^{-1}(3)$

Q22.Prove that:- $\tan^{-1}\left(\frac{1-x}{1+x}\right) - \tan^{-1}\left(\frac{1-y}{1+y}\right) = \sin^{-1}\left(\frac{y-x}{\sqrt{1+x^2}\sqrt{1+y^2}}\right)$

Q23.Prove that $\sec^2(\tan^{-1}2) + \operatorname{cosec}^2(\cot^{-1}3) = 15$

Q24. Find the real solution of $\tan^{-1}\sqrt{x(x+1)} + \sin^{-1}\sqrt{x^2+x+1} = \frac{\pi}{2}$ Ans . -1,0

Q25.Find the value of x which satisfy the equation $\sin^{-1}x + \sin^{-1}(1-x) = \cot^{-1}x$ Ans. 0,1/2

Q26. Solve the equation:-$\sin^{-1}6x + \sin^{-1}6\sqrt{3x} = -\pi/2$ Ans. -1/12

Q27. Solve the equation:- $\tan^{-1}(2+x) + \tan^{-1}(2-x) = \tan^{-1}\left(\frac{2}{3}\right)$ Ans.±3

Q28. *If* $\cos^{-1}\frac{x}{2} + \cos^{-1}\frac{y}{3} = \theta$, *provethat* $9x^2 - 12xy\cos\theta + 4y^2 = 36\sin^2\theta$

CLASS-12
Record File

*Athletics, Basketball, Football, Handball, Hockey, Kho Kho, Rifle Shooting, Volleyball and
Unified Basketball [CWSN (Children With Special Needs - Divyang)]

****Record File shall include:**

Practical-1:Modified AAHPER administration for all items.
Practical-2: Conduct Barrow 3 Item Test on 10 students.
Practical-3: Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.
Practical-4: Procedure for administering Senior Citizen Fitness Test for 5 elderly family members.
Practical-5: Any one game of your choice out of the list above. Labelled diagram of field & equipment (Rules,
Terminologies & Skills).

GD GOENKA PUBLIC SCHOOL, SILIGURI

Holiday homework

XII (Humanities)

In the formal registers answer the following questions: Please Note:

(i) All questions are compulsory.
(ii) 1 markers should not exceed 20 words each.
(iii) 2 markers should not exceed 40 words each.
(iv) 4 markers should not exceed 100 words each.
(v) 6 markers should not exceed 150 words each.

Q.1.What was the Cuban missile crisis? (1)
Q.2. Name any two countries belonging to CIS which are oil and gas producers (1)
Q.3.What is meant by US hegemony in world politics? (1)
Q.4. Mention two new members of European Union (1)
Q.5. Mention any two objectives of SAARC. (1)
Q.6. Who is the present Secretary General of UN? (1)
Q.7. Mention any two military features of Cold War. (2)
Q.8. Why did Soviet Bloc break up? (2)
Q.9.What was 9/11 event? Write about US response to the incident. (2)
Q.10.What led to the formation of EU? (2)
Q.11. Suggest any two measures to have good relations with Pakistan. (2)
Q.12. Why are International Organisations like UN required? (2)
Q.13.What are basic choices that a country has when faced with war? (2)
Q.14.What was India's response to Cold War? Explain. (4)
Q.15. Examine any four factors which to the disintegration of former Soviet Union. (4)
Q.16. Explain US hegemony as hard power. (4)
Q.17.What were the objectives behind formation of ASEAN? (4)
Q.18. 'Democracy is becoming the first choice of people of South Asia'. Justify this statement. (4)
Q.19.Why do some countries question the issue of India's inclusion as a permanent member of UNSC? (4)
Q.20. Write a note on confidence building. How is it a means of avoiding war? (4)
Q.21. How far is it true to say that international alliances during cold war era were determined by requirements of super powers and calculations of smaller states. Explain. (6)
Q.22. Describe any three reasons for disintegration of USSR. (6)
Q.23. Analyse role of USA in global war on terrorism after 9/11. (6)
Q.24. Mention 3 major factors responsible for making EU a political force more than an economic one. (6)
Q.25. Analyse the common problems of South Asian countries. (6)

G.D GOENKA PUBLIC SCHOOL
HOLIDAY HOMEWORK- PHYSICS
CLASS XII SCIENCE

General Instructions:

A. Start Planning and do some active Research for Investigatory project in Physics, and submit the same in July. Cet the synopsis approved beforehand by your teacher.

B. All students are required to complete the following work, from the prescribed NCERT text book (Part-I). It should be written in a SEPARATE [older and submitted to the concerned teacher in July.

1. Chapter 2. Q. No.'s 2. 1 to 2.28 (Page No's - 87-90)
2. Chapter 3. Q. No.'s 3. 1 to 3. 13 (Page No's - 127-128)
3. Chapter 4. Q. No.'s 4. 1 to 4. 18 (Page No's - 169- 17O)

C. All activities as per given list to be written in the Activity (Brown) file,

D. Assignments on Electrostatics an Current Electricity (enclosed) to be done in H.W copy.

G.D GOENKA PUBLIC SCHOOL
HOLIDAY HOMEWORK- CHEMISTRY
CLASS XII- SCIENCE

Solving all questions of chapter 1,2,3,4 of NCERT

G.D GOENKA PUBLIC SCHOOL
HOLIDAY HOMEWORK- BIOLOGY
CLASS XII- SCIENCE

General Instructions:

1. *All experiments to be written in the practical file.*
2. *Prepare a project work on any relevant topic on biology on your choice .*
3. *The given assignments to be done in Biology notebook.*

TOPIC–Human Reproduction

Very Short Answer Questions
[1mark]

1. What is acrosome?
2. What are the male and female gametes called?
3. Name the part of female reproductive system where foetus develops.
4. Why does failure of testes to descend into the scrotum cause sterility?
5. At what stage is the embryo implanted in the uterus?
6. Name the tissue which lines the inner surfaces of fallopian tube.
7. Expand HCG and FSH.

Short AnswerQuestions
[2 marks]

8. State any two differences between spermatogenesis and oogenesis.
9. What is corpus luteum? Under what conditions does it undergo degeneration?
10. Why do meiosis and mitosis occur in germ cells?
11. Distinguish between blastula and gastrula.
12. Why are the testes of human males considered extra abdominal? What is the significance of this condition?
13. How is milk production regulated by hormones in human female? Explain.
14. Describe the function of the following:

(i) Vas deferens (ii) Scrotum (iii) Seminiferous tubules.

15. Draw a labeled diagram of the microscopic structure of a human sperm.
16. Briefly describe the stages of spermatogenesis in human male.
17. Draw a diagrammatic, labeled sketch of a sectional view of human ovary.
18. Explain the events in a normal woman during her menstrual cycle on the following days: (a) Pituitary hormone levels from 8 to 12 days.

(b) Uterine events from 13 to 15 days.

(c) Ovarian events from 16 to 23 days.

19. What happens to corpus luteum in human female if the ovum is (i) fertilized (ii) not fertilized?

LongAnswerQuestions
[5marks]

20. Give a schematic representation of oogenesis in human female indicating the chromosomal number at each step. Mention at what stage of female life does each phase occurs.
21. Explain the role of ovarian hormones in inducing changes in the uterus during menstrual cycle. What triggers release of oxytocin at the time of parturition?
22. Draw a diagram of human female reproductive system and label any ten parts in it.
23. (a) Describe the events of oogenesis with the help of schematic representation. (b) Write two differences between oogenesis and spermatogenesis.
24. Mention the site of fertilization of a human ovum. List the events that follow the sequence until the implantation of the blastocyst.
25. (a) Draw a sectional view of a seminiferous tubule of human. Label sertoli cell, spermatagonia and leydig cell on it and write their functions
    (b) Explain the role of pituitary and sex hormones in the process of spermatogenesis.

TOPIC–SexualReproductioninfloweringplants

Very Short Answer Questions
[1 MARKS]

1. Name the component cell of the 'egg apparatus' in an embryo sac.
2. Which cells degenerate after fertilization in an embryo sac?
3. Name the triploid tissue in the seed.
4. What is self – incompatibility?
5. Which technical term is used for the transfer of pollen grains from the anther of one flower to the stigma of another flower on the same plant?
6. What is the function of germ pore?
7. Banana is a parthenocarpic fruit whereas oranges show polyembryony. How are they different from each other with respect to seeds?

Short Answer Questions
[2marks]

8. What is meant by monosporic development of a female gametophyte?
9. What is triple fusion? Where and how does it take place? Name the nuclei involved in triple fusion.
10. Why pollen grains are well preserved as fossils?
11. Draw a labelled diagram of L.S. of an apple.
12. List two strategies that a bisexual chasmagamous flower can evolve to prevent self pollination.
13. Draw a diagram of a typical dicot embryo and label any four part including the reduced suspensor.

14. Describe in sequence the process of microsporogenesis in angiosperms.
15. Differentiate between:

(a) Hypocotyl and epicotyls (b) Coleoptile and coleorrhiza (Perisperm and pericarp.

16. What is meant by emasculation? When and why does a plant breeder employ this technique?
17. How many haploid cells are present in a mature female gametophyte of a flowering plant? Name them.
18. Write the difference between the tender coconut water and the thick, white kernel of a mature coconut and their ploidy.
19. Name the cell from which the endosperm of coconut develops. Give the characteristic features of endosperm of coconut.
20. What is apomixes? How is the phenomenon useful to the farmer?

<u>LongAnswerQuestions</u>
[5 marks]

21. With a neat labelled diagram, describe the parts of a mature angiospermic embryo sac. Mention the role of synergids.
22. (a) Explain the process of double fertilization in angiosperms.

(b) List the changes each part of the fertilized ovule undergoes to develop into a seed.

23. (a) With the help of a labelled diagram depict the organization of a typical embryo sac just after double fertilisation.

(b) How are seeds advantageous to angiosperms?

24. (a)Draw a diagram of a ferilised embryo sac of a dicot flower. Label all its cellular components.

(b)Explain the development of a mature embryo from this embryo sac.

25. Angiosperm flowers may be monoecious, cleistogamous or show self – incompatibility. Describe the characteristic features of each one of them and state which one of these flowers promotes inbreeding and outbreeding respectively.

G.D GOENKA PUBLIC SCHOOL
HOLIDAY HOMEWORK- COMPUTER SCIENCE
CLASS XII- SCIENCE
Networking

Questions carrying 1 / 2 Marks

1. Write one advantage of star topology ? Also illustrate how five computers can be connected with each other using star topology of network.
2. Give one example of each of URL and Domain name.
3. Name two open source software along with its application.
4. Write one advantage of bus topology ? Also illustrate how five computers can be connected with each other using bus topology of network.
5. Name two proprietary software along with their application.
6. Differentiate between packet switching and message switching technique in network communication.
7. What is VoIP?
8. Name two client side script and two server side script.
9. Compare open source software and proprietary software.
10. In networking, what is WAN ? How is it different from LAN?
11. What are cookies?
12. What is the function of modem?
13. What is a repeater?
14. What is web 2.0?
15. Differentiate between XML and HTML.
16. What was the goal of ARPANET in computer network?
17. Write the full forms of the following

i) GNU
ii) XML
iii) FTP
iv) FSF
v) GSM
vi) CDMA
vii) TDMA
viii) HTTP
ix) ARPANET
x) WLL
xi) NFS
xii) Mbps
xiii) URL
xiv) HTML
xv) ISP

HOLIDAY HOMEWORK
CLASS XII
ACCOUNTANCY (055)

Questions and Illustrations from the text book – Double Entry Book Keeping by T.S. Grewal- Analysis of Financial statements:

- **Chapter 5: Cash Flow Statement** (Unsolved Scanner Questions)
- **Model Test Paper 1** (Page No. M.1 and M.2)
- **Model Test Paper 2** (Page no. M.2 and M.3)

PROJECT WORK

- **Comprehensive** problem as discussed in class should be complete in all respects.
- **Segment Reporting**: You are required to take the result of a quarter of a listed company and analyse the performance with respect to result of the year ended and the result of the same quarter in the previous year. The analysis should include the profit and also the segment results.

HOLIDAY HOMEWORK
CLASS XII
BUSINESS STUDIES (054)

PROJECT WORK

Students should select any ONE Topic for the entire year.

I. **Project One: ELEMENTS OF BUSINESS ENVIRONMENT**
Page No. 496 and 497 of Poonam Gandhi

II. **Project Two : PRINCIPLES OF MANAGEMENT**
Page No. 498 and 499 of Poonam Gandhi

III. **Project THREE: MARKETING MANAGEMENT**
Page No. 500,501and 502 of Poonam Gandhi

IV. **Project Four: STOCK EXCHANGE**
Page No. 499 and 500 of Poonam Gandhi

Computer Science

Class - 12

Networking

Questions carrying 1 / 2 Marks

1. Write one advantage of star topology ? Also illustrate how five computers can be connected with each other using star topology of network.
2. Give one example of each of URL and Domain name.
3. Name two open source software along with its application.
4. Write one advantage of bus topology ? Also illustrate how five computers can be connected with each other using bus topology of network.
5. Name two proprietary software along with their application.
6. Differentiate between packet switching and message switching technique in network communication.
7. What is VoIP?
8. Name two client side script and two server side script.
9. Compare open source software and proprietary software.
10. In networking, what is WAN ? How is it different from LAN?
11. What are cookies?
12. What is the function of modem?
13. What is a repeater?
14. What is web 2.0?
15. Differentiate between XML and HTML.
16. What was the goal of ARPANET in computer network?
17. Write the full forms of the following
    - i) GNU
    - ii) XML
    - iii) FTP
    - iv) FSF
    - v) GSM
    - vi) CDMA
    - vii) TDMA
    - viii) HTTP
    - ix) ARPANET
    - x) WLL
    - xi) NFS
    - xii) Mbps
    - xiii) URL
    - xiv) HTML
    - xv) ISP

xvi) FLOSS
xvii) W3C

18. What is the difference between virus and worm in context to computer networking?
19. Name two common web browser.
20. What is protocol? Which protocol is used to search information from internet using an internet browser?
21. Name two switching techniques used to transfer data between two terminals (computers).
22. Distinguish between website and web browser.
23. What is bridge?
24. What is Hub?
25. What is Router?
26. How is coaxial cable different from optical fibre?
27. What is the significance of Cyber Law?
28. How is Hacker different from Cracker?
29. Give two advantages and two disadvantages of each of the topology.
30. Define each of
    i) Circuit Switching
    ii) Packet Switching
    iii) Message Switching