CLASS - XII	COMMERCE

ENGLISH

Q1. Write a Book Review in a file/folder on "The Invisible Man" by HG Wells, as per the format given below:

S. No.	CONTENT
1	Preface
2	Particulars of the book
3	Chapter wise summary and analysis
4	Character sketch- 5 main characters
5	Evaluation of plot and structure
6	Chapterwise Summary
7	Suggestions
8	Conclusion

Attach the above table on the content page of the Book Review

MATHS

Complete the following assignment in Maths notebook

1. If $\tan^{-1}1 + \tan^{-1}(1/2) = \tan^{-1}\alpha$, find α.
2. Let $f : R - \{ - 4/3\} \rightarrow R$ be a function defined as $f(x) = 4x / 3x+4$. Find the inverse of f.
3. Evaluate $\sin [\pi - \sin^{-1} (-1)]$.
4. Prove that $\cos^2(\tan^{-1}2)+\sin^2(\cot^{-1}3) = 3/10$.
5. If a binary operation * is defined on the set Z of integers as $a*b = 3a - b$, then find the value of $(2*3)*4$.

6. Find the principal value of $\tan^{-1}[\sin(\sin^{-1}x+\cos^{-1}x)]$, x ε [-1,1] .
7. Evaluate $\sin\{ 1/2 \cos^{-1}(4/5) \}$.
8. If : R → R ,a,b,c,d ϵ R such that (a,b) *(c,d) = (ac, b + ad) Find the identity element of the function.
9. Evaluate : Cos $(\pi/3- \sin^{-1}(-\sqrt{3}/2))$.
10. Show that the function f: R → R such that $f(x) = x^2$ is neither one –one nor onto.
11. If $f(x) = e^x$ and $g(x) = \log_e x$, find fog and gof. Is fog = gof ?
12. Prove that: $4\tan^{-1}\frac{1}{5}-\tan^{-1}\frac{1}{70}+\tan^{-1}\frac{1}{99}=\frac{\pi}{4}$
13. Prove: $2\tan^{-1}(1/2) + \tan^{-1}(1/7) = \tan^{-1}(31/17)$
14. Solve for x: $\tan^{-1}2x + \tan-13x = \pi/4$
15. Prove that the function f: R →R defined as f(x) = 2x-3 is invertible and find $f^{-1}(x)$
16. Show that $\sin^{-1} 12 /13 + \cos^{-1} 4/5 + \tan^{-1} 63/16 = \pi$.
17. Show that the relation are in the set a = {x : x ϵ w, x ≤10}given by

    $R=\{(a,b): |a-b| \text{ is a multiple of } 3\}$ is an equivalence relation , find the elements related to 3.
18. Examine if the following are binary operations

    (i) a*b =a+b/2,a,b ϵ N

    (ii) a*b=a+b/2, a,b ϵ Q .
19. Prove that

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

20. Prove: $2\tan^{-1}1/2) + \tan^{-1}(1/7) = \tan^{-1}(31/17)$.
21. Solve for x: $\tan^{-1}2x + \tan^{-1}3x = \pi/4$.
22. Prove that $\tan^{-1}(1/5) + \tan^{-1}(1/7) + \tan^{-1}(1/3) + \tan^{-1}(1/8) = 1$.
23. Prove that $\tan^{-1}\left(\frac{\sqrt{1+x}-\sqrt{1-x}}{\sqrt{1+x}+\sqrt{1-x}}\right)=\frac{\pi}{4}-\frac{1}{2}\cos^{-1}x, -\frac{1}{\sqrt{2}}\le x\le 1$.

24. Prove that $\cot^{-1}\left(\dfrac{\sqrt{1+\sin x}-\sqrt{1-\sin x}}{\sqrt{1+\sin x}+\sqrt{1-\sin x}}\right)=\dfrac{x}{2}, x\in\left(0.\dfrac{\pi}{4}\right)$.

25. Prove that $\tan^{-1}\left(\dfrac{\sqrt{1+\cos x}+\sqrt{1-\cos x}}{\sqrt{1+\cos x}-\sqrt{1-\cos x}}\right)=\dfrac{\pi}{4}+\dfrac{x}{2}$.

26. Write in simplest form: $\tan^{-1}\left(\dfrac{a\cos x-b\sin x}{b\cos x+a\sin x}\right)$.

27. If $A=\begin{bmatrix}4 & 3\\ 2 & 1\end{bmatrix}$ and $B=\begin{bmatrix}2 & 4\\ 5 & 1\end{bmatrix}$, verify $(AB)^{-1}=B^{-1}A^{-1}$.

28. Split matrix $\begin{bmatrix}3 & 1 & 1\\ 2 & 3 & 4\\ 1 & 0 & 1\end{bmatrix}$ in two matrices, one of which is symmetric and the other is skew – symmetric.

29. If $A=\begin{bmatrix}3 & 1\\ -1 & 2\end{bmatrix}$ verify A^2 - 5A + 7I = 0, hence find A^{-1}.

30. Find the inverse of $A=\begin{bmatrix}2 & 3 & 1\\ 1 & 4 & 1\\ 2 & 1 & 0\end{bmatrix}$, using elementary row transformation.

31. If $A'=\begin{bmatrix}-2 & 3\\ 1 & 2\end{bmatrix}$, $B=\begin{bmatrix}-1 & 0\\ 1 & 2\end{bmatrix}$ find (A +2B)'.

32. If $A=\begin{bmatrix}-1 & 4\\ 3 & -7\end{bmatrix}$, verify that $(A^2)'=(A')^2$.

33. If $A'=\begin{bmatrix}3 & 4\\ -1 & 2\\ 0 & 1\end{bmatrix}$ and $B=\begin{bmatrix}-1 & 2 & 1\\ 1 & 2 & 3\end{bmatrix}$ then verify that

(A + B)' = A' + B' (ii) (A – B)' = A' - B'

34. For the matrix $A=\begin{bmatrix}1 & 5\\ 6 & 7\end{bmatrix}$, verify that

(i) (A + A') is a symmetric matrix. (ii) (A – A') is a skew – symmetric matrix.

35. Using elementary column transformations, find the inverse of the following matrices:

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

36. Prove , using the properties of determinants

$(i)\begin{vmatrix}1 & 1 & 1\\ a & b & c\\ a^2 & b^2 & c^2\end{vmatrix}$ = (a – b)(b – c)(c – a) $(ii)\begin{vmatrix}a & b & c+\beta\\ a & b+\beta & c\\ a+\beta & b & c\end{vmatrix}=\beta^2(a+b+c+\beta)$

$(iii)\begin{vmatrix} a & b & c \\ ab & bc & ca \\ a^2 & b^2 & c^2 \end{vmatrix}$ = abc

$(iv)\begin{vmatrix} 1+a & 1 & 1 \\ 1 & 1+b & 1 \\ 1 & 1 & 1+c \end{vmatrix} = abc\left(1+\frac{1}{a}+\frac{1}{b}+\frac{1}{c}\right)$

$(v)\begin{vmatrix} x+y & x & x \\ 6x+4y & 4x & 6x \\ 10x+8y & 8x & 3x \end{vmatrix} = x^3$

$(vi)\begin{vmatrix} y+z & z & y \\ z & z+x & x \\ y & x & x+y \end{vmatrix} = 4xyz$

$(vii)\begin{vmatrix} a-b-c & 2a & 2a \\ 2b & b-c-a & 2b \\ 2c & 2c & 10a-6b+3c \end{vmatrix} = (a+b+c)^3$

ACCOUNTANCY

Complete the following assignment and submit in accountancy notebook.

1. Triphati and Chauhan are partners in a firm sharing profits and losses in the ratio of 3:2. Their capitals were Rs.60,000 and Rs.40,000 as on January 01, 2005. During the year they earned a profit of Rs. 30,000. According to the partnership deed both the partners are entitled to Rs. 1,000 per month as Salary and 5% interest on their capital. They are also to be charged an interest of 5% on their drawings, irrespective of the period, which is Rs. 12,000 for Tripathi, Rs. 8,000 for Chauhan. Prepare Partner's Accounts when, capitals are fixed.

2. Anubha and Kajal are partners of a firm sharing profits and losses in the ratio of 2:1. Their capital, were Rs.90,000 and Rs.60,000. The profit during the year were Rs. 45,000. According to partnership deed, both partners are allowed salary, Rs. 700 per month to Anubha and Rs. 500 per month to Kajal. Interest allowed on capital @ 5%p.a. The drawings at the end of the period were Rs. 8,500 for Anubha and Rs. 6,500 for Kajal. Interest is to be charged @ 5% p.a. on drawings. Prepare partners capital accounts, assuming that the capital accountare fluctuating.

3. Ramesh and Suresh were partners in a firm sharing profits in the ratio of their capitals contributed on commencement of business which were Rs. 80,000 and Rs. 60,000 respectively. The firm started business on April 1, 2005. According to the partnership agreement, interest on capital and drawings are 12% and 10% p.a., respectively. Ramesh and Suresh are to get a monthly salary of Rs. 2,000 and Rs. 3,000, respectively.

The profits for year ended March 31, 2006 before making above appropriations was Rs. 1,00,300. The drawings of Ramesh and Suresh were Rs. 40,000 and Rs. 50,000, respectively. Interest on drawings amounted to Rs. 2,000 for Ramesh and Rs. 2,500 for Suresh. Prepare Profit and Loss Appropriation Account and partners' capital accounts, assuming that their capitals are fluctuating.

4. Arun, Boby and Chintu are partners in a firm sharing profit in the ratio or 2:2:1. According to the terms of the partnership agreement, Chintu has to get a minimum of Rs. 60,000, irrespective of the profits of the firm. Any Deficiency to Chintu on Account of such guarantee shall be borne by Arun. Prepare the profit and loss appropriation account showing distribution of profits among partners in case the profits for year 2006 are: (i) Rs. 2,50,000; (ii) 3,60,000.

5. Mohan, Vijay and Anil are partners, the balance on their capital accounts being Rs. 30,000, Rs. 25,000 and Rs. 20,000 respectively. In arriving at these figures, the profits for the year ended March 31, 2007 amounting to Rupees 24,000 had been credited to partners in the proportion in which they shared profits. During the tear their drawings for Mohan, Vijay and Anil were Rs. 5,000, Rs. 4,000 and Rs. 3,000, respectively. Subsequently, the following omissions were noticed:
(a) Interest on Capital, at the rate of 10% p.a., was not charged.
(b) Interest on Drawings: Mohan Rs. 250, Vijay Rs. 200, Anil Rs. 150 was not recorded in the books.
Record necessary corrections through journal entries.

6. X and Y are partners sharing profits in 5:3 ratio admitted Z for 1/10 share which he acquired equally for X and Y. Calculate new profit sharing ratio?

7. Radha and Rukmani are partners in a firm sharing profits in 3:2 ratio. They admitted Gopi as a new partner. Radha surrendered 1/3 of her share in favour of Gopi and Rukmani surrendered 1/4 of her share in favour of Gopi. Calculate new profit sharing ratio?

8. The books of Ram and Bharat showed that the capital employed on 31.12.2002 was Rs. 5,00,000 and the profits for the last 5 years : 2002 Rs. 40,000; 2003 Rs. 50,000; 2004 Rs. 55,000; 2005 Rs. 70,000 and 2006 Rs. 85,000. Calculate the value of goodwill on the basis of 3 years purchase of the average super profits of the last 5 years assuming that the normal rate of return is 10%?

9. A and B are partners in a firm sharing profits and losses in the ratio of 3:2. They decide to admit C into partnership with 1/4 share in profits. C will bring in Rs. 30,000 for capital and the requisite amount of goodwill premium in cash. The goodwill of the firm is valued at Rs, 20,000. The new profit sharing ratio is 2:1:1. A and B withdraw their share of goodwill. Give necessary journal entries?

10. Rajesh and Mukesh are equal partners in a firm. They admit Hari into partnership and the new profit sharing ratio between Rajesh, Mukesh and Hari is 4:3:2. On Hari's admission goodwill of the firm is valued at Rs. 36,000. Hari is unable to bring his share of goodwill premium in cash. Rajesh, Mukesh and Hari decided not to show goodwill in their balance sheet. Record necessary journal entries for the treatment of goodwill on Hari's admission.

11.. Given below is the Balance Sheet of A and B, who are carrying on partnership business on 31.12.2006. A and B share profits and losses in the ratio of 2:1.

Balance Sheet of A and B as on December 31, 2006

Liabilites (Rs.)	Amount (Rs.)	Assets	Amount
Bills Payable	10,000	Cash in Hand	10,000
Creditors	58,000	Cash at Bank	40,000
Outstanding Expenses	2,000	Sundry Debtors	60,000
		Stock	40,000
Capitals:		Plant	1,00,000
A 1,80,000		Buildings	1,50,000
B 1,50,000	3,30,000		
	4,00,000		4,00,000

C is admitted as a partner on the date of the balance sheet on the following terms:

(i) C will bring in Rs. 1,00,000 as his capital and Rs. 60,000 as his share of goodwill for 1/4 share in the profits.

(ii) Plant is to be appreciated to Rs. 1,20,000 and the value of buildings is to be appreciated by 10%.

(iii) Stock is found over valued by Rs. 4,000.

(iv) A provision for bad and doubtful debts is to be created at 5% of debtors.

(v) Creditors were unrecorded to the extent of Rs. 1,000.

Pass the necessary journal entries, prepare the revaluation account and partners' capital accounts, and show the Balance Sheet after the admission of C.

12. Ashish and Dutta were partners in a firm sharing profits in 3:2 ratio. On Jan. 01, 2007 they admitted Vimal for 1/5 share in the profits. The Balance Sheet of Ashish and Dutta as on Jan. 01, 2007 was as follows:

Balance Sheet of A and B as on 1.1.2007

Liabilites (Rs.)	Amount (Rs.)	Assets		Amount
Creditors	15,000	Land & Building		35,000
Bills Payable	10,000	Plant		45,000
Ashish Capital	80,000	Debtors	22,000	
Dutta's Capital	35,000	Less : Provision	2,000	20,000
		Stock		35,000
		Cash		5,000
	1,40,000			1,40,000

It was agreed that:

i) The value of Land and Building be increased by Rs. 15,000.

ii) The value of plant be increased by 10,000.

iii) Goodwill of the firm be valued at Rs. 20,000.

iv) Vimal to bring in capital to the extent of 1/5th of the total capital of the new firm.

Record the necessary journal entries and prepare the Balance Sheet of the firm after Vimal's admission.

Comprehensive Project (To be done on A4 Size sheets)

Roll No. 1 to 10

On 1st April, 2012, Mrs. Niharika Singh started a gym and physical Fitness centre with a capital of Rs. 14,00,000. She opened a bank account by depositing Rs. 9,60,000 in it. She purchased a building in her locality for setting up her gym, it costs Rs. 4,00,000. The payment was made through cash account. She managed to get a loan of Rs. 12,00,000 for this purpose. The loan was repayable with interest of Rs. 2,40,000 in three yearly installments. At the end of the first year, she has to repay Rs. 5,20,000 [Rs. 4,00,000 (principal) + 1,20,000 (interest)]

Niharika purchased exercising machines and equipments for Rs. 16,00,000.She gave Rs. 4,000 for electricity connection. In this tech-savy world, to run business successfully, she purchased computers worth Rs. 3,90,000 and paid a deposit of Rs. 10,000 with VSNL for internet connection. She got her gym furnished by paying Rs. 1,00,000. She made people aware about her gym by distributing pamphlets which cost her Rs. 18,000.

All payments were to be made by cheques. All the receipts were in cash to be deposited in the bank on the same day. The membership of the gym was available for Rs. 5,000 for six weeks.

At the end of the year, the position of her business showed the following:

	Rs.
Total revenue realized (including sale of books and CDs)	19,92,000
Outstanding Electricity Charges	1,24,000
Telephone Charges	34,000
Petty Expenses	48,000
Entertainment Expenses	40,000
Maintenance Expenses	40,000
Purchase of books and CDs	2,20,000
Wages for the staff maintaining the gym	1,26,000

She appointed three trainers for the gym. They were to be paid Rs. 3,72,000 for their services. But their salaries for the year were outstanding. She withdrew Rs. 24,000 by cheque each month for her household and personal expenses. At the end of year, she paid instalment of bank loan with interest.

You are required to

a. Journalise the above transactions. Post them into ledgers and prepare Trial Balance.
b. Prepare Final Accounts of Niharika Singh.
c. Charge depreciation @ 25% on equipments and machines, 10% on furniture and fixtures and 5% on building.

Roll No. 11 to 20

On 1st April, 2012, Mrs. Niharika Singh started a gym and physical Fitness centre with a capital of Rs. 28,00,000. She opened a bank account by depositing Rs. 19,20,000 in it. She purchased a building in her locality for setting up her gym, it costs Rs. 8,00,000. The payment was made through cash account. She managed to get a loan of Rs. 24,00,000 for this purpose. The loan was repayable with interest of Rs. 4,80,000 in three yearly installments. At the end of the first year, she has to repay Rs. 10,40,000 [Rs. 8,00,000 (principal) + 2,40,000 (interest)]

Niharika purchased exercising machines and equipments for Rs. 32,00,000.She gave Rs. 8,000 for electricity connection. In this tech-savy world, to run business successfully, she purchased computers worth Rs. 7,80,000 and paid a deposit of Rs. 20,000 with VSNL for internet connection. She got her gym furnished by paying Rs. 2,00,000. She made people aware about her gym by distributing pamphlets which cost her Rs. 36,000.

All payments were to be made by cheques. All the receipts were in cash to be deposited in the bank on the same day. The membership of the gym was available for Rs. 10,000 for six weeks.

At the end of the year, the position of her business showed the following:

	Rs.
Total revenue realized (including sale of books and CDs)	39,84,000
Outstanding Electricity Charges	2,48,000
Telephone Charges	68,000
Petty Expenses	96,000
Entertainment Expenses	80,000
Maintenance Expenses	80,000
Purchase of books and CDs	4,40,000
Wages for the staff maintaining the gym	2,52,000

She appointed three trainers for the gym. They were to be paid Rs. 7,44,000 for their services. But their salaries for the year were outstanding. She withdrew Rs.48,000 by cheque each month for her household and personal expenses. At the end of year, she paid instalment of bank loan with interest.

You are required to

a. Journalise the above transactions. Post them into ledgers and prepare Trial Balance.
b. Prepare Final Accounts of Niharika Singh.
c. Charge depreciation @ 25% on equipments and machines, 10% on furniture and fixtures and 5% on building.

Roll No. 21 to 30

On 1st April, 2012, Mrs. Niharika Singh started a gym and physical Fitness centre with a capital of Rs. 42,00,000. She opened a bank account by depositing Rs. 28,80,000 in it. She purchased a building in her locality for setting up her gym, it costs Rs. 12,00,000. The payment was made through cash account. She managed to get a loan of Rs. 36,00,000 for this purpose. The loan was repayable with interest of Rs. 7,20,000 in three yearly installments. At the end of the first year, she has to repay Rs. 15,60,000 [Rs. 12,00,000 (principal) + 3,60,000 (interest)]

Niharika purchased exercising machines and equipments for Rs. 48,00,000.She gave Rs. 12,000 for electricity connection. In this tech-savy world, to run business successfully, she purchased computers worth Rs. 11,70,000 and paid a deposit of Rs. 90,000 with VSNL for internet connection. She got her gym furnished by paying Rs. 3,00,000. She made people aware about her gym by distributing pamphlets which cost her Rs. 54,000.

All payments were to be made by cheques. All the receipts were in cash to be deposited in the bank on the same day. The membership of the gym was available for Rs. 15,000 for six weeks.

At the end of the year, the position of her business showed the following:

	Rs.
Total revenue realized (including sale of books and CDs)	59,76,000
Outstanding Electricity Charges	3,72,000
Telephone Charges	1,02,000
Petty Expenses	1,44,000
Entertainment Expenses	1,20,000
Maintenance Expenses	1,20,000
Purchase of books and CDs	6,60,000
Wages for the staff maintaining the gym	3,78,000

She appointed three trainers for the gym. They were to be paid Rs. 11,16,000 for their services. But their salaries for the year were outstanding. She withdrew Rs. 72,000 by cheque each month for her household and personal expenses. At the end of year, she paid instalment of bank loan with interest.

You are required to

a. Journalise the above transactions. Post them into ledgers and prepare Trial Balance.
b. Prepare Final Accounts of Niharika Singh.
c. Charge depreciation @ 25% on equipments and machines, 10% on furniture and fixtures and 5% on building.

BUSINESS STUDIES

I Each student to prepare and submit his/her allotted project report.

Following essentials are required to be fulfilled for its preparation and submission.

1. The total length of the project will be of 25 to 30 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 the title of the Project, student information, school and 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 of the visit.
- Conclusions (summarised suggestions or findings, future scope of study).
- Photographs (if any).
- Appendix.

ECONOMICS

UNIT 1 INTRODUCTION

Very short answer type questions (1 mark)

1. What is opportunity cost?
2. Define Marginal opportunity cost
3. What is meant by economizing of resources?
4. What does a left ward shift of PPC indicate?
5. What does a right ward shift of PPC indicate?
6. Price determination of a commodity is a subject matter of Micro economics or Macro economics
7. Define Marginal rate & transformation
8. Define Production Possibility Curve
9. What do you mean by an economy?
10. What will be the shape of PPC when MRT is constant

Short answer type questions of (3 - 4 marks)

1. Give difference between Micro and Macro Economics
2. Why PPC is concave to the origin
3. How PPC helps in solving central problem 'what to produce'
4. For whom to produce is a central problem of economics? Explain
5. Explain the central problem 'how to produce' with the help of an example
6. Show the following situation with PPC
   a. Fuller utilization of resources
   b. Growth of resources
   c. Under utilization of resources.
7. Explain two features of PPC with the help of imaginary schedule and diagram
8. Why does an economic problem arise? Explain reasons in brief

UNIT 2 CONSUMER'S BEHAVIOUR

Very short answer type questions (1 mark)

1. Define the following economics terms (each of one mark)
   a. Utility
   b. Law of diminishing marginal utility

c. Consumer equilibrium
d. Indifference Curve
e. Monotonic preference
f. Budget line
g. Indifference map
h. Budget set
i. Marginal rate of substitution

2. What will be the behavior of TU when MU is zero
3. State condition of consumer equilibrium in case of one commodity
4. Define slope of Indifference Curve
5. How TU is derived from MU.
6. State the law of equimarginal utility
7. Define slope of budget line

Short answer type questions (3-4 marks)

1. Explain the law of diminishing marginal utility with the help of utility schedule and diagram.
2. Explain consumers equilibrium with utility approach in case of single good.
3. State four features of indifference curve.
4. Why does two Indifference Curves not intersect each other?
5. What changes will take place in total utility when

a. MU curve remains above X-axis
b. MU curve touches X-axis
c. MU curve lies below X-axis

6. State and explain the condition of consumers equilibrium in case of two commodities by utility approach.
7. List the assumptions of Indifference Curve approach. Differentiate between ordinal and cardinal utility.
8. Why Indifference Curves are convex to the origin? Explain with the help of example and diagram.
9. A consumer consumes only two goods. For the consumer to be in equilibrium why must marginal rate of substitution be equal to the ratio of prices of two goods.
10. What do you mean by budget line? What are the reasons for change in budget line?

Long questions (6 marks)

1. Explain the conditions of consumer equilibrium with the help of the indifference curve analysis. Explain how consumers equilibrium is determined. Explain the same with the help of diagram.
2. Explain the determination of consumers equilibrium with the help of a schedule in case of two commodities by using utility approach.

THEORY OF DEMAND AND ELASTICITY OF DEMAND

Very short answer type questions (1 mark)

1. Define the following economic terms (each of 1 mark)
   a. Demand
   b. Individual demand
   c. Market demand
   d. Demand function
   e. Demand schedule
   f. Elasticity of demand
   g. Normal good
   h. Inferior good
   i. Complimentary goods
   j. Substitute goods
2. How is market demand schedule derived from individual demand schedule?
3. What causes an upward movement along a demand curve?
4. Why is demand for water inelastic?
5. When is demand elastic?
6. When is demand of a good called inelastic?
7. If the number of consumers increase, in which direction will the demand curve shift
8. If the slope of a demand curve is parallel to X-axis, what will be the elasticity of demand
9. Give two examples of normal goods and inferior goods.
10. Arise in price of a good results in a decrease in expenditure of it. Is its demand elastic or inelastic?

Short answer type question (3-4 marks)

1. Distinguish between the following
    a. Normal goods and Inferior goods (with examples)
    b. Complementary and Substitute goods (with examples)
    c. Change in demand and Change in quantity demanded (with diagram)
    d. Expansion of demand and Increase in demand (with diagram)
    e. Contraction of demand and decrease in demand (with diagram)
2. Explain in brief
    a. Factors of right ward shift of demand curve
    b. Factors of left ward shift of demand curve.
3. Explain the total expenditure method of finding price elasticity of demand.
4. What will be the slope of demand curve under the following situations, Show with diagram
    a. Perfectly elastic demand
    b. Perfectly inelastic demand
    c. Unit elastic demand

5. When price of a good is Rs. 7 per unit a consumer buys 12 units. When price falls to Rs.6 per unit he spends Rs. 72 on the good. Calculate price elasticity of demand by using the percentage method. Comment on the likely shape of demand curve based on this measure of elasticity.

6. A consumer buys 10 units of a good at a price of Rs. 9 per unit. At price of Rs. 10 per unit he buys 9 units. What is price elasticity of demand? Use expenditure approach comment on the likely shape of demand curve on the basis of this measure of elasticity.

7. A consumer buys 20 units of a good at a price of Rs. 5 per unit. He is incurs an expenditure of Rs. 120 when he buys 24 units. Calculate price elasticity of demand of the percentage method. Comment on the likely shape of demand curve based on this information.

8. Price elasticity of good X is known to be thrice that of Good Y. If price of the Good X increases by 20% and price of the good Y decreases by 40% then calculate percentage charges in demand in both the cases.

9. The price elasticities of demand for good X and Y are known to be 1 and 2 respectively. Price of X arises by 5% while that of good Y falls by 5%. What are the percentage changes in the quantities demands of X and Y.

10. The price elasticity of good X or Y are equal. The demand of X rises from 100 units to 150 units due to a 20 percent fall in its price. Calculate the percentage rise in demand of Y, it its price falls by 8 percentage.

Long questions (6 marks)

1. State and explain in brief factors affecting price elasticity of demand.
2. What is law of demand? Explain with the help of demand schedule and diagram. What are its assumptions?
3. With the help of diagram, explain the effect of following changes on demand of a commodity
   a. A fall in the income of a buyer
   b. A rise in price of complementary good
   c. A fall in price of substitute good
   4. Why does demand curve slope downwards to the right?
   5. With the help of diagram, explain the effect of following changes on demand of a commodity
   d. A rise in the income of a buyer
   e. A fall in price of complementary good
   f. A rise in price of substitute good

PHYSICAL EDUCATION

Complete the following reports in Record File

1. Write benefits of Yoga asnas (10), Swiss ball and Pollymetric.
2. Athletics – Middle and Long Distance runs and Throws. (The events must be other than from those administered under Physical Fitness Test).
3. Draw a neat diagram of the Field/ Court of any one Game of choice (Athletics, Basketball, Football, Handball, Hockey, Kho Kho and Volleyball). Write its history, rules & regulations, terminologies and important tournaments.
4. Measure Resting Heart Rate and Respiratory Rate of ten members from family or neighbourhood for three weeks and show graphical representation of the data.

Happy Holidays!