HOLIDAY HOMEWORK-PHYSICS CLASS XII

1.Collect information regarding Investigatory Project on any topic of your choice in Physics (preferably from XII portion) under the following headings:

a)Title of the Project

b)Objective/Purpose/Aim

c)Introduction/Theory

d)Materials Required

e)Method/Procedure

f)Observations

g)Conclusion/Result

h)Applications

i)References/Bibliography

2.Write Practical Record for 6 experiments from the following list:

SECTION–A Experiments

1 To determine resistivity of two / three wires by plotting a graph for potential difference versus current.

2. To find resistance of a given wire / standard resistor using a metre bridge.

3. To verify the laws of combination (series) of resistances using a metre bridge.

4. To compare the EMF of two given primary cells using a potentiometer.

5. To determine the internal resistance of a given primary cell using a potentiometer.

6. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.

SECTION-B Experiments

1. To find the value of v for different values of u in case of a concave mirror and to find the focal length.

2. To find the focal length of a convex mirror, using a convex lens.

3. To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v.

4. To find the focal length of a concave lens, using a convex lens.

5. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.

6. To determine the refractive index of a glass slab using a travelling microscope.

DDMS .P.Obul Reddy Public School

Holiday Home 2020

Subject Biology

Home Work For the classes VI to X and XII

Class	Topic
VI	Diet Chart
VII	Measurement
VIII	CBSE Work
IX	*Given below
X	Complete Record Work
XII	Draw and Label the diagrams

*** Class IX Home Work**

Theme: Why Do We Fall Ill

WEEK 1

• After reading Link 1, try to answer the following:

➢ Explain how different modes of transmission cause different diseases . Make a table of the different kinds of diseases, their mode of transmission and their symptoms.

➢ What kinds of diseases can be prevented by practicing hand-washing?

• After the videos in Link 2 and 3 and reading the information in Link 4, 5, 6, 7 and 8, try to answer the following:

➢ Explain how the virus can be spread.

➢ What is the correct procedure to wash hands?

➢ Explain the preventive measure for COVID-19.

➢ What can you do as an individual to avoid the spread of COVID-19?

WEEK 2

• If there is a clinical thermometer in your house, measure your body temperature by keeping it in your armpit and compare it with the room temperature. Find out from authentic sources in the internet what the normal body temperature is. Take precautionary

measure not to break the thermometer since it contains mercury. If there is no thermometer in your home, watch some videos on how body temperature or temperature in liquids is measured.

- Make your own poster about the precautionary measures to be taken in order to avoid the spread of COVID-19 and share the picture of the poster with your friends, relatives, etc.
- What changes in your lifestyle have you made to avoid contracting various diseases? Make a list on a chart paper/sheet of paper and share a picture of it with your classmates.

- Link 1: https://www.who.int/diseasecontrol_emergencies/publications/idhe_2009_london_inf_dis_transmission.pdf
- Link 2: https://www.youtube.com/watch?v=bB_Pk0Wr1Zg&t=130s
- Link 3: https://www.youtube.com/watch?v=36WwOX1yFqQ&feature=youtu.be
- Link 4: https://www.mohfw.gov.in
- Link 5: https://www.mohfw.gov.in/pdf/ProtectivemeasuresEng.pdf
- Link 6: https://www.mohfw.gov.in/pdf/ProtectivemeasuresHin.pdf
- Link 7: https://www.mohfw.gov.in/pdf/Poster_Corona_ad_Eng.pdf
- Link 8: d_Hin.pdf
- Link 9: https://www.indiatoday.in/india/story/coronavirus-cases-in-india-covid19-states-cities-affected-1653852-2020-03-09

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CHEMISTRY

Electrochemistry--Exercise questions

COMPUTER SCIENCE WITH PYTHON

Write a python program for the following:

1. Recursively to find the factorial of a natural number.

2. Recursive code to find the sum of all elements of a list.

3. Recursive code to compute the nth Fibonacci number.

4. To sort a list of elements using the bubble sort.

5. To sort a list of elements using the selection sort.

6. To determine whether a number is a perfect number or not.

7. To determine whether a number is armstrong number or not.

8. To determine whether a number is a palindrome or not.

9. To search for an element using liner search

10. To search for an element using binary search

Also explore an idea, purpose and requirements for implementing a project in Python

POLITICAL SCIENCE (CLASS XII G)

Collect the information on India's relations with the given countries in the past and present...

US

Russia

China

Isreal

Pakistan

Bangladesh

Nepal

Srilanka,

Myanmar

DDMS (AMS) P OBUL REDDY PUBLIC SCHOOL
WORK SHEET (CLASS XII)
Inverse Trigonometric Functions

1. Solve: $\sin^{-1}(1-x) + \sin^{-1} x = \cos^{-1} x$ (Ans: x = 0, 1)
2. Solve: $\cos(\sin^{-1} x) = \frac{1}{6}$ (Ans: x= $\pm\frac{\sqrt{35}}{6}$)
3. Solve: $\cos[2\sin^{-1}(-x)] = 0$ (Ans: x= $\pm\frac{1}{\sqrt{2}}$)
4. Simplify: $\sin\left[2\tan^{-1}\sqrt{\frac{1-x}{1+x}}\right]$ (Ans: $\sqrt{1-x^2}$)
5. Simplify: $\cos^{-1}\left[\frac{x+\sqrt{1-x^2}}{\sqrt{2}}\right]$ (Ans: $\sin^{-1} x - \frac{\pi}{4}$)
6. Show that: $\cot^{-1}\left[\frac{\sqrt{1+x^m}+\sqrt{1-x^m}}{\sqrt{1+x^m}-\sqrt{1-x^m}}\right] = \frac{\pi}{4} - \frac{1}{2}\cos^{-1}(x^m)$
7. Show that: $\sin^{-1}\left[\frac{\sqrt{1+x^m}+\sqrt{1-x^m}}{2}\right] = \frac{\pi}{4} + \frac{1}{2}\cos^{-1}(x^m)$
8. Find the value of (i) $\sin^{-1}\left[\sin\frac{3\pi}{5}\right]$ (ii) $\cos^{-1}\left[\cos\frac{7\pi}{6}\right]$
   (iii) $\tan^{-1}\left[\tan\frac{9\pi}{8}\right]$ (Ans: (i) $\frac{2\pi}{5}$ (ii) $\frac{5\pi}{6}$ (iii) $\frac{\pi}{8}$)
9. Find the value of the following
   i) $\cos\left(\tan^{-1}\left(\frac{24}{7}\right)\right)$ ii) $\tan\left(\sec^{-1}\left(\frac{25}{7}\right)\right)$ iii) $\sin\left(\cos^{-1}\left(\frac{3}{5}\right)\right)$
   iv) $\sin^{-1}\left(sin\left(\frac{33\pi}{7}\right)\right)$ v) $\cos^{-1}\left(cos\left(\frac{24\pi}{7}\right)\right)$ vi) $\sin\left(2sin^{-1}\left(\frac{4}{5}\right)\right)$
   (Ans: (i) $\frac{7}{25}$ (ii) $\frac{24}{7}$ (iii) $\frac{4}{5}$ (iv) $\frac{2\pi}{7}$ (v) $\frac{4\pi}{7}$ (vi) $\frac{24}{25}$)
10. Show that $\sec^2(\tan^{-1} 2) + cosec^2(\cot^{-1} 2) = 10$.
11. Simplify: $\sin^{-1}\left[x\sqrt{1-x} - \sqrt{x}\sqrt{1-x^2}\right]$ (Ans: $\sin^{-1} x - \sin^{-1}\sqrt{x}$)
12. Find the value of: (i) $\tan\left[\frac{7\pi}{12} - 2\sin^{-1}\left(\frac{1}{2}\right)\right]$ (Ans: 1)
    (ii) $\cos\left[\frac{\pi}{6} + 2\tan^{-1}(1)\right] + \sin\left[3\sin^{-1}\left(\frac{1}{2}\right) + 2\cos^{-1}\left(\frac{1}{2}\right)\right]$ (Ans: $-\frac{1}{2}$)
13. Find principal values of: (i) $\sin^{-1}\left[\sin\left(\frac{-3\pi}{4}\right)\right]$ (Ans : $\frac{-\pi}{4}$)
    (ii) $\cos^{-1}\left[\cos\left(\frac{-7\pi}{3}\right)\right]$ (Ans : $\frac{\pi}{3}$)
    (iii) $\tan^{-1}\left[\tan\left(\frac{-5\pi}{6}\right)\right]$ (Ans : $\frac{-\pi}{4}$)
    (iv) $\cos^{-1}\left[\cos\left(\frac{13\pi}{5}\right)\right]$ (Ans : $\frac{3\pi}{5}$)
14. Prove that : (i) $\sin\left[\frac{\pi}{2} - \cos^{-1} x\right] = x$ (ii) $\cos\left[\frac{\pi}{2} - \tan^{-1} x\right] = \frac{x}{\sqrt{1+x^2}}$

15. Simplify : (i) $\sin^{-1}\left[\frac{a\ \sin x+b\cos x}{\sqrt{a^2+b^2}}\right]$ (ii) $\tan^{-1}\left(\frac{5x}{1-6x^2}\right)$

(iii) $\tan^{-1}\left(\frac{ax+b}{bx-a}\right)$ (iv) $\tan^{-1}\left(\frac{x}{1+6x^2}\right)$

(v) $\tan^{-1}\left[\frac{x}{a+\sqrt{a^2+x^2}}\right]$

16. Prove that : $4\tan^{-1}\left(\frac{1}{5}\right)+\tan^{-1}\left(\frac{1}{99}\right)-\tan^{-1}\left(\frac{1}{70}\right)=\frac{\pi}{4}$

17. Prove that: $\cos^{-1}x+\cos^{-1}\left[\frac{x}{2}+\frac{\sqrt{3-3x^2}}{2}\right]=\frac{\pi}{3}$

18. Prove that : $\sin\left[\frac{1}{2}\{\sin^{-1}\left(2x\sqrt{1-x^2}\right)+\cos^{-1}(1-2y^2)\}\right]=x\sqrt{1-y^2}+y\sqrt{1-x^2}$

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

20. Solve for x: (i) $\cos(2\sin^{-1}x)=\frac{1}{9}$, $x>0$

(ii) $\sin[\cot^{-1}(x+1)]=\cos[\tan^{-1}x]$ (Ans: $\frac{2}{3}$, $-\frac{1}{2}$)

21. Prove that: $3\cos^{-1}\frac{4}{5}=\pi-\tan^{-1}\frac{117}{44}$

22. Simplify: $\cos^{-1}\left[\frac{\sqrt{9+x}+\sqrt{9-x}}{6}\right]$ (Ans: $\frac{\pi}{4}+\frac{1}{2}\cos^{-1}\left(\frac{x}{9}\right)$)

23. If $\sin^{-1}x-\cos^{-1}x=\frac{\pi}{6}$ then find x. (Ans: $\frac{\sqrt{3}}{2}$)

24. Evaluate: $5sec^2\left[\tan^{-1}\left(\frac{15}{8}\right)\right]+4sin^2\left[\sec^{-1}\left(\frac{13}{5}\right)\right]$

25. Prove that: $\tan\left[\frac{1}{3}\{\tan^{-1}\left(\frac{3x-x^3}{1-3x^2}\right)+\tan^{-1}\left(\frac{3y-y^3}{1-3y^2}\right)\}\right]=\frac{x+y}{1-xy}$

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

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Continuity and Differentiability

*1.*Show that the function f(x) = $\begin{cases} \frac{\sin x}{x}+\cos x, & x>0 \\ 2, & x=0 \\ \frac{4\left(1-\sqrt{x+1}\right)}{-x}, & x<0 \end{cases}$ Is continuous at x = 0.

2. If f(x) = $\begin{cases} \frac{1-(\sin x)^3}{3(\cos x)^2}, & \text{if } x<\frac{\pi}{2} \\ a, & \text{if } x=\frac{\pi}{2} \\ \frac{b(1-\sin x)}{(\pi-2x)^2}, & \text{if } x>\frac{\pi}{2} \end{cases}$ Is continuous at $x=\frac{\pi}{2}$, then find a and b . (Ans: $a=\frac{1}{2}$, b=4)

3. If f(x) = $\begin{cases} \frac{\sqrt{1+px}-\sqrt{1-px}}{x}, & -1\leq x<0 \\ \frac{2x+1}{x-2}, & 0\leq x\leq 1 \end{cases}$ If f(x) is continuous on interval $[-1,1]$. Then find p (Ans:$\frac{-1}{2}$)

4. If f(x)= $\begin{cases} \frac{1-\cos 4x}{8x^2}, & x\neq 0 \\ k, & x=0 \end{cases}$. Then for what value of k , f(x) Is continuous ? (Ans: k=1)

5. If f(x)= $\begin{cases} \frac{x-5}{|x-5|}+a, & \text{if } x<5 \\ a+b, & \text{if } x=5 \\ \frac{x-5}{|x-5|}+b, & \text{if } x>5 \end{cases}$ Is continuous. Then find a and b.

6. Find the derivative of (i) $x^{x^{x^{\cdots^{\infty}}}}$ (ii) $\sqrt{\tan x+\sqrt{\tan x+\sqrt{\tan x+\ldots\ldots\infty}}}$

7. Differentiate : $x^{x^x}+(x^x)^x$

8.Determine a , b , c so that f(x)= $\begin{cases} \frac{\sin(a+1)x+\sin x}{x}, & x<0 \\ C, & x=0 \\ \frac{\sqrt{x+bx^2}-\sqrt{x}}{bx^{\frac{3}{2}}}, & x>0 \end{cases}$ (Ans: $a=\frac{-3}{2}$,$c=\frac{1}{2}$, $b\epsilon R$) Is continuous at x=0

9. Differentiate $\tan^{-1}\left(\frac{x}{1+\sqrt{1+x^2}}\right)$ with respect to $\sin\left(2\cot^{-1}\sqrt{\frac{1+x}{1-x}}\right)$

10.If $y=\left[\log\left(x+\sqrt{x^2+1}\right)\right]^2$, then show that $(1+x^2)\frac{d^2y}{dx^2}+x\frac{dy}{dx}=2$.

11. If $y=\sin^{-1}\left\{x\sqrt{1-x}-\sqrt{x}\sqrt{1-x^2}\right\}$ then prove that $\frac{dy}{dx}=\frac{1}{\sqrt{1-x^2}}-\frac{1}{2\sqrt{x-x^2}}$

12.Find $\frac{dy}{dx}$, when $y=10^{x^{10^x}}$ (Ans: $10^x x^{10^x}10^{x^{10^x}}\log 10\left\{\frac{1}{x}+\log 10\ \log x\right\}$)

13. If $y=\left(\sqrt{x+1}+\sqrt{x-1}\right)^m$, then prove that $(x^2-1)y_2+xy_1=\frac{1}{4}m^2y$.

14. If $\log(x^2+y^2)=2\tan^{-1}\left(\frac{y}{x}\right)$, then show that $\frac{dy}{dx}=\frac{y+x}{x-y}$

15. It is given that for the function $f(x)=x^3+bx^2+ax+5$ on $[1,3]$, Rolles theorem holds with $c=2+\frac{1}{\sqrt{3}}$. Find the values of a and b. (Ans : a=11, b=-6)

16. If f(x) = $\begin{cases} \frac{x^3+x^2-16x+20}{(x-2)^2}, & x\neq 2 \\ K, & x=2 \end{cases}$ Is continuous function , then find K (Ans: k=7)

17. Differentiate : (i) $\frac{1}{x}$ (ii)$\frac{1}{x^2}$ (iii)$\frac{1}{\sqrt{x}}$ (iv) $\sin x \log x$ (v) $\sin(\log x)$ (vi) $\sin(x \log x)$ (Vii) $|x|$
Viii) $\sin^2 x$ (ix) $\sin^2 x^2$ (x) $\log x$ (xi)$\log x^x$ (xii) $(\log x)^x$ (xiii) $\log_{10} x$ (xiv) $\log_5 \log x$

18. If x= sin ($\frac{1}{a}\log y$) , then show that $(1-x^2)y_2 - xy_1 - a^2y = 0$

19. If x= a sint and y= a(cost +$\log \tan \frac{t}{2}$), then find $\frac{d^2y}{dx^2}$

20. If x=sin t , y= sin pt , prove that $(1-x^2)y_2 - xy_1 + p^2y = 0$

21. If (x –y)$e^{\frac{x}{x-y}}$ =a , then prove that $y\frac{dy}{dx} + x = 2y$.

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

23. Prove that: $\frac{d}{dx}\left(\frac{x}{2}\sqrt{a^2-x^2} + \frac{a^2}{2}\sin^{-1}\frac{x}{a}\right) = \sqrt{a^2-x^2}$

24. Discuss the applicability of Lagrange's mean value theorem for

(i) $|x|$ on $[-2,2]$

(ii)$[x]$ on $[-1,1]$

(iii) $\log x$ on $[1,e]$

(iv) $\sqrt{x^2-4}$ on $[2,4]$

25. For what values of a and b the function f(x) = $\begin{cases} x^2 , & x \le 1 \\ ax+b , & x > 1 \end{cases}$ (Ans : a=2, b=-1) is differentiable at x=1

26.Discuss the differentiability of f(x) = $\sqrt{x}$ at x=0.

27.For what values of a and b the function f(x) = $\begin{cases} x^2+2x , & x \le 0 \\ ax+b , & x>0 \end{cases}$ (Ans : a=2, b=0) is differentiable at x=0

28. If x = sin t , y = cos t then find (i) $\frac{dy}{dt}$ (ii) $\frac{dx}{dt}$ (iii) $\frac{d^2y}{dt^2}$ (iv) $\frac{d^2x}{dt^2}$ (v) $\frac{dy}{dx}$ (Vi) $\frac{d^2y}{dx^2}$ and verify whether $\frac{d^2y}{dx^2} = \frac{d^2y}{dt^2} / \frac{d^2x}{dt^2}$ 29. if x= $\theta^{\tan\theta}$ and y = $(\sin\theta)^{\cos\theta}$ then find $\frac{dy}{dx}$

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English Holiday Home Work

1. 'They talk endlessly in a spiral that moves from poverty to apathy to greed and to injustice', reflect your thoughts on the lines from the lesson *The Lost Spring* as a write up highlighting the injustice being done to the poor sections of the society. Include your suggestions to improve their condition.

2. We need a new system for the age of ecology; a system which is embedded in the care of everyone, and also in the care of Earth. Reflect on this note taking ideas from the lesson 'The Tiger King'.

3. 'That ought to set him up in a nice little hay feed grain business; he always said that's what he always wished he could do and he certainly can't go back to his old business….'

Do modern day youth have the freedom to pursue a career of their choice? Discuss keeping in mind the lesson The Third Level.

4. every individual lives a life away from dear and near due to the professional and personal reason. One struggles to set priorities while making decisions, especially when it comes to taking care of the older members of the family. While they have spent their youth and energy in giving wings to their children, they find themselves lonely in their old

age, when they need love and care the most. Guilt and the need to be available for their family and profession come in conflict with each other.

Analyse the how one's commitments come in the way of taking care of the old, in the context of the poem My Mother at Sixty-Six

5. Bring out the irony in the system of education of the slum children with reference to the poem An Elementary School Classroom in a Slum.

6. 'My last French Lesson! Why I hardly learned how to write! I should never learn anymore! I must stop there then. The problem of wastage – school dropouts and illiteracy/backwardness still plague our country. What qualities on the part of the administration, educationists and youth do you think will help to surmount this hurdle?

5. The new health crisis has thrown up more uncertainties than ever before in human history. Consequently, the education system is currently in the throes of changes, the magnitude of which was unforeseen. In the times such as these, academic learning has taken on the garb of virtual classes, webinars and the like. Is this an ideal way of imparting education? Draft a debate on the motion, 'Virtual Learning has become the New Normal'. You may choose either in favour of / against the motion.

7. With humans indoors due to coronavirus, the planet celebrates and heals itself. At present, the Earth is momentarily devoid of the man-made problems and has seen a major improvement in the quality of its

resources. Rare species of animals are valiantly walking into cities, revisiting old habitats. COVID-19 lockdown has given the earth some time to heal, and made many of us realise the importance of nature. Write an article on the need for preserving our environment and ways to sustain these practices after the quarantine ends.

General Instructions –

i. **Read and revise all the chapters of Analysis of financial statements thoroughly and answer the following.**
ii. **Answer the following questions either in A-4 sheets or Note book and submit on the re-opening day of the school.**

ANALYSIS OF FINANACIAL STATEMENS

1. Current ratio is 2:1. State the giving reasons, whether the current ratio will improve or decrease or will not change on the purchase of inventory for cash.

2. Prachi Ltd. has a proprietary ratio of 25%. Its management wanted in maintaining this ratio at 35%. What are the two choices to do so?

3. Cash proceeds from issue of debentures are shown under cash flow from investing activity. Is it correct?

4. State the importance of the financial analysis for employees and trade unions.

5. State any two differences between Current ratio and Quick ratio.

6. 10% of Debentures earlier shown as a long term borrowings , redeemable within 12 months of balance sheet will be shown under (……)
   (a) Short –Borrowings
   (b) Short-term provisions
   (c) Other current liabilities
   (d) Trade payables

7. Flow of cash will result from ……
   (a) Cash withdrawn from bank
   (b) Rs. 20,000, 8% Debentures issued to vendors of machinery
   (c) Rs. 30,000 received from debtor
   (d) Cheques of Rs. 10,000 deposited into bank

8. From the following, prepare a comparative statement of profit and loss. of AB Ltd.

Particulars	31st March 2018	31st March 2019
Revenue from operations	8,00,0000	1,20,00,000
Expenses	48,00,000	84,00,000
Other income	16,00,000	14,40,000
Income tax	50%	50%

9. Comparative statement of profit and loss for the year ended 31st March, 2018 & 2019 of ABC Ltd.

Particular	Note no	31st March 2018 (Rs.)	31st March 2019 (Rs.)	Absolute change(Rs)	% of change
I. Revenue from operations		4,20,000	8,00,000	?	90.48
II. Expenses					
(a) Purchase of stock in trade		2,50,000	?	2,00,000	80
(b) Change in inventories of stock of trade		50,000	50,000	?	
(c) Other expenses		30,000	40,000	10,000	33.33
Total Expenses		3,30,000	5,40,000	2,10,000	63.64
III. Profit before tax		90,000	2,60,000	1,70,000	188.89
Less : Tax		27,000	78,000	?	188.88
IV. Profit After Tax		63,000	1,82,000	?	188.89

Complete the above comparative statement of profit and loss for the year ended 31st March, 2018 and 31st March, 2019.

10. (a) Inventory turnover ratio is 5 times. Inventory at the end is Rs.20, 000more than the inventory in the beginning. Revenue from operations is Rs.80, 000. Rate of Gross profit on cost 1/4th. Current liabilities are Rs.2, 40,000. Quick ratio is .75. Calculate current ratio. List any two uses of Return on Investment.

11. Debt to Equity Ratio of Vinod Limited is 2:1. Company purchased a Machinery of Rs. 2,00,000 by taking a long term loan. What will be the effect on ratio? A). Increase B). Decrease C). Increase & decrease in debt & equity D). No Effect

12. From the following information given below , calculate i) current ratio and ii) Debt equity ratio : Net profit of the year Rs.80,000; Fixed assets Rs.2,00,000 ; Closing inventory Rs.10,000; other current assets Rs.1,00,000; Current liabilities Rs.30,000; Equity share capital Rs.1,00,000 ; 10% Preference share capital Rs.70,000; 12% Debentures Rs.60,000 and Revenue from operations ,i.e. net sales during the year Rs.5,00,000.

13. From the following information, prepare comparative balance sheet:

Particulars	31/03/2019 (Rs.)	31/03/2018 (Rs.)
Share capital	30,00,000	22,50,000
Reserves and surplus	3,00,000	4,00,000
Long term borrowings	9,00,000	6,00,000
Short term borrowings	3,00,000	2,00,000
Fixed assets : Tangible	30,00,000	22,50,000
Intangible	9,00,000	6,00,000
Inventories	1,50,000	3,00,000
Trade receivables	1,50,000	1,00,000
Cash and cash equivalents	3,00,000	2,00,000

14. From the following Balance sheet of Rama Ltd., prepare common size Balance sheet as at 31st March 2019.

Particulars	**Note No**	**31.03.2019**	**31.03.2019**
I.EQUITIES AND LIABILITIES			
1.SHAREHOLDERS FUNDS:			
a. Share Capital		5,00,000	4,00,000
b. Reserves and Surplus		1,60,000	1,20,000
2.CURRENT LIABILITIES			
Trade Payables		1,40,000	80,000
TOTAL		**8,00,000**	**6,00,000**
II.ASSETS			
1. NON-CURRENT ASSETS			
a. Fixed assets			
i. Tangible assets		3,20,000	2,40,000
ii. Intangible assets		40,000	60,000
2. CURRENT ASSETS			
a. Inventories		1,60,000	60,000
b. Trade receivables		2,40,000	2,00,000
c. Cash and Cash equivalents		40,000	40,000
TOTAL		**8,00,000**	**6,00,000**

15. Calculate Trade Receivables Turnover Ratio in each of the following alternative cases:

Case 1: Net Credit Sales Rs.4,00, 000; Average Trade Receivables RS. 1,00,000.
Case 2: Revenue from Operations Net Sales Rs. 30,00,000; Cash Revenue from Operations, i.e., Cash Sales Rs. 6,00,000; Opening Trade Receivables Rs. 2,00,000; Closing Trade Receivables Rs. 6,00,000.

Case 3: Cost of Revenue from Operations or Cost of Goods Sold Rs. 3, 00,000; Gross Profit on Cost 25%; Cash Sales 20% of Total Sales; Opening Trade Receivables Rs. 50,000; Closing Trade Receivables Rs. 1,00,000.

Case 4: Cost of Revenue from Operations or Cost of Goods Sold Rs. 4,50,000; Gross Profit on Sales 20%; Cash Sales 25% of Net Credit Sales, Opening Trade Receivables Rs. 90,000; Closing Trade Receivables Rs. 60,000.

16. From the following information related to Naveen Ltd., Calculate Return on Investment and Total Assets to Debt Ratio from the following Information: Fixed Assets Rs. 75,00,000; Current Assets Rs. 40,00,000; Current Liabilities Rs. 27,00,000; 12% Debentures Rs. 80,00,000 and Net Profit before Interest, Tax and Dividend Rs. 14,50,000.

17. Calculate Return on Investment ROI from the following details:
Net Profit after Tax Rs. 6,50,000; Rate of Income Tax 50%; 10% Debentures of Rs. 100 each Rs. 10,00,000; Fixed Assets at cost Rs. 22,50,000; Accumulated Depreciation on Fixed Assets up to date Rs. 2,50,000; Current Assets Rs.12,00,000; Current Liabilities Rs. 4,00,000.

18. i. Cost of Revenue from Operations Cost of Goods Sold
Rs. 2, 20, 000; Revenue from Operations Net Sales Rs.3,20,000; Selling Expenses Rs. 12,000; Office Expenses Rs. 8,000; Depreciation Rs. 6,000. Calculate Operating Ratio.

ii. Revenue from Operations, Cash Sales Rs.4,00,000; Credit Sales Rs. 1,00,000; Gross Profit Rs. 1,00,000; Office and Selling Expenses Rs. 50,000. Calculate Operating Ratio.

19. Calculate Gross Profit Ratio from the following data: Average Inventory Rs.3,20,000; Inventory Turnover Ratio 8 Times; Average Trade Receivables Rs. 4,00,000; Trade Receivables Turnover Ratio 6 Times; Cash Sales 25% of Net Sales.

20. A company earns Gross Profit of 25% on cost. For the year ended 31st March, 2017 its Gross Profit was Rs. 5,00,000; Equity Share Capital of the company was Rs. 10,00,000; Reserves and Surplus Rs. 2,00,000; Long-term Loan Rs.Rs.3,00,000 and Non-current Assets were Rs.10,00,000.

Compute the 'Working Capital Turnover Ratio' of the company

ACCOUNTANCY HOLIDAY HOME WORK - THE END.

P.T.O. FOR BUSINESS STUDIES HOLIDAY HOME WORK

(FROM PAGE 6 TO PAGE 9)

DDMS (A.M.S.) P.OBUL REDDY PUBLIC SCHOOL

CLASS - XII BUSINESS STUDIES - HOLIDAYS HOME WORK (MARKETING) (2020-21)

General Instructions –

i. **Read and revise the chapter 11. Marketing thoroughly and answer the following.**

ii. **Answer the following questions either in A-4 sheets or Note book and submit on the re-opening day of the school.**

Q. No	Question Description
1.	Identify the concept from the following bits A to E: A. Shreemaya Hotel in Indore was facing a problem of low demand for its rooms due to off season. The Managing Director (MD) of the hotel, Mrs. Sakina was very worried. She called upon the Marketing Manager, Mr.Kapoor for his advice. He suggested, that the hotel should announce an offer of '3 Days and 2 Nights hotel stay packaged with free breakfast and one day religious visit to Omkarehswar and Mahakaleshwar Temples'. The MD liked the suggestion very much. Identify the promotional tool, which can be used by the hotel, through which large number of prospective pilgrimage tourists, all over the country and also abroad, can be reached, informed and persuaded to use the incentive. B. Royal sports enterprises procure variety of goods, articles, sports materials like bat, ball, wickets, gloves, helmet, t-shirt, pair of shoes from different sources and deliver them to customers, cricket boards etc. Identify the function of above middlemen. C. It is similar to advertising, in the sense that it is a non-personal form of communication. However, as against advertising it is a non-paid form of communication. It generally takes place when favourable news is presented in the mass media about a product or service. Identify the concept. D. It refers to planning, organising, directing and control of the activities which facilitate exchange of goods and services between producers and consumers or users of products and services. It involves performance of various functions such as analysing and planning the marketing activities, implementing marketing plans and setting control mechanism. These functions are to be performed in such a way that organisation's objectives are achieved at the minimum cost. It is nothing but management of the marketing function. It is generally is related to creation of demand. Identify the concept. E. A brand or part of a brand that is gives legal protection to the product. Identify the concept.

2	Good Living Ltd. manufactures mosquito repellent tablets. These tablets are packed in strips of 12 tablets each. Each of these strips are packed in a cardboard box, 48 such boxes are then placed in a big corrugated box and delivered to various retailers for sale. State the purpose of packaging the tablets in a corrugated box.
3	Who is a marketer? State the 4 Ps of Marketing.
4	Identify the concept from the following: i) It refers to producing goods of predetermined specifications, which helps in achieving uniformity and consistency in the output. It ensures the buyers that goods conform to the predetermined specifications, quality, price and packaging and reduces the need for inspection, testing and evaluation of the products. ii) It is the process of classification of products into different groups, on the basis of some of its important characteristics such as quality, size, etc. It is particularly necessary for products which are not produced according to predetermined specifications, such as in the case of agricultural products, say wheat, oranges, etc. Grading ensures that goods belong to a particular quality and helps in realising higher prices for high quality output. iii) It provides basis for distinguishing the product of a firm with that of the competitor, which in turn, helps in building customer's loyalty and in promoting its sale.
5	What is the role of marketing in a firm?
6	Distinguish between personal selling and advertising.
7	Identify the concept from the following: A) During the earlier days of industrial revolution, the demand for industrial goods started picking up but the number of producers were limited. As a result, the demand exceeded the supply. Selling was no problem. Anybody who could produce the goods was able to sell. It was believed that profits could be maximised by producing at large scale, thereby reducing the average cost of production. It was also assumed that consumers would favour those products which were widely available at an affordable price. Thus, availability and affordability of the product were considered to be the key to the success of a firm. B) Mere availability and low price of the product could not ensure increased sale and as such the survival and growth of the firm. Thus, with the increase in the supply of the products, customers started looking for products which were superior in quality, performance and features.

	C) Marketing orientation implies that focus on satisfaction of customer's needs is the key to the success of any organisation in the market. It assumes that in the long run an organisation can achieve its objective of maximisation of profit by identifying the needs of its present and prospective buyers and satisfying them in an effective way. All the decisions in a firm are taken from the point of view of the customers. In other words, customer's satisfaction becomes the focal point of all decision making in the organisation.
8	Distinguish between marketing and selling.
9	"You don't close a sale; you open a relationship if you want to build a long-term, successful enterprise." It involves oral presentation of message in the form of conversation with one or more prospective customers for the purpose of making sales. Explain the importance of the above concept to business men.
10	If products were sold by generic names, it would be very difficult for the marketers to distinguish their products from that of their competitors. Thus, most marketers give a name to their product, which helps in identifying and distinguishing their products from the competitors' products. Identify the concept and explain its advantages to customers.
11	Explain the importance of packaging.
12	Explain the functions of labeling
13	"Every time I travelled, people asked me to bring them chips, khakra and pickles from all over the country," says Anoushka. Finally, she and her colleague, Sumeet, decided to make a business out of it. They launched a facebook page, asked people what they wanted, and they came up with a list of about 100 places and tied up with two dozen vendors to begin with. They were servicing people from Jaipur who wanted spices from Kerala, people from Panipat who wanted halwa from Jammu and people from Delhi who ordered for fresh tea leaves from Darjeeling. Through their business they wished to bridge the gap between sellers and buyers. The business is now worth millions. Explain the important activities that Anoushka and Sumeet will have to be involved in for making the goods available to the customers at the right place, in the right quantity and at the right time.
14	It is perhaps the most commonly used tool of promotion. It is an impersonal form of communication, which is paid for by the marketers (sponsors) to promote some goods or service. The most common modes of this tool are 'newspapers', 'magazines', 'television', and 'radio'. Explain role of the above concept.

15	A sales man should have various attributes or qualities in order to be effective and efficient in his job. What are the qualities of good salesman?
16	Explain the role or functions of public relations.
17	Choice of appropriate channel of distribution is a very important marketing decision, which affects the performance of an organisation. Whether an organisation will adopt direct marketing channels or long channels involving number of intermediaries is a strategic decision. The choice of channels depends on various factors. Explain the factors affecting this concept.
18	Marketing is concerned with exchange of goods and services from producers to consumers or users in such a way that maximises the satisfaction of customers' needs. From the view point of management function, numbers of activities are involved under this concept. Explain its activities or functions of this concept.
19	Your manager assigned a task of fixing price to a product. There are number of factors affecting pricing. Explain the factors affecting price determination of a product.
20	They smoothen the flow of goods by creating possession, place and time utilities, facilitate movement of goods by overcoming various time, place and possession barriers that exist between the manufacturers and consumers. They perform various important functions. Explain the functions of this concept.

THE END

HOLIDAY HOMEWORK FOR GRADE XII (ECONOMICS) MAY 2020

NUMERICAL PROBLEMS OF NATIONAL INCOME

1. Calculate net value added at market price of a firm: -

ITEMS	(Rs. IN THOUSAND)
i. Sale	700
ii. Change in stock	40
iii. Depriciation	80
iv. Net in direct taxes	100
v. Purchasse of machinery	250
vi. Purchase of intermediate product.	400

2. Calculate net value added at market price of a firm: -

ITEMS	(Rs. IN THOUSAND)
i. Sale	300
ii. Change in stock	-10
iii. Depreciation	20
iv. Net in direct taxes	30
v. Purchase of machinery	100
vi. Purchase of intermediate product.	150

3. From the following data, calculate ' National income' by (a) Income method (b) Expenditure method: -

ITEMS	***(Rs. IN Crores)***
1. Interest	*150*
2. Rent.	*250*
3. Government final consumption expenditure	*600*
4. Private final consumption expenditure	*1200*
5. Profit	*640*
6. Compensation of employees	*1000*
7. Net factor income from abroad.	*30*
8. N I T	*60*
9. Net export.	*(-) 40*
10. CFC	*50*
11. Net domestic capital formation.	*340*

4. Calculate' National income' by the expenditure method and Income method.: -

ITEMS	***(Rs. in Crores)***
i. Net Indirect taxes	*120*
ii. Net factor income to abroad.	*10*
Iii Wages salaries	*320*
iv. Rent	*35*
v. Wages and Salaries	*40*
Vi. Rent	*15*
vii. Private final consumption expenditure	*500*
viii. Interest	*60*
ix. Change in stock	*-10*
x. Social security contribution by employers	*30*
xi. Government final consumption expenditure.	*100*
xii. Profit	*50*
xiii. Net Export.	*0*

5. Calculate National income by Income method and Expenditure method : .

ITEMS	***(Rs. in Crores)***
i. Profit,	*200*
ii. Private final consumption expenditure,	*440*
iii. Government final consumption expenditure,	*250*
iv., Compensation of employee,	*350*
v. Gross domestic capital formation,	*90*
vi. Consumption of fixed capital,	*20*
vii. Net export	*- 20*
viii. Interest,	*60*
ix. Rent,	*70*
x. Net factor income from abroad,	*50*
xi. Net indirect taxes,	*60*

6.

From the following data about a firm 'X' for the year 2000-01, calculate the net value added at a market price during the year.

Particular	**₹ in crores**
Sales	90
Closing stock	25
Opening stock	15
Indirect taxes	10
Depreciation	20
Intermediate consumption	40
Purchase of raw materials	15
Rent	5

7. Calculate intermediate consumption from the following data:

Particular	₹ in crores
Value of Output	200
Net value added at factor cost	80
Goods and services tax (GST)	15
Subsidy	5
Depreciation	20

8. Find Net National Product at Market Price.

S.no.	Contents	(Rs. in Crores)
(i)	Personal Taxes	200
(ii)	Wages and Salaries	1,200
(iii)	Undistributed Profit	50
(iv)	Rent	300
(v)	Corporate Tax	200
(vi)	Personal Income	2,000
(vii)	Interest	400
(viii)	Net Indirect Tax	300
(ix)	Net Factor Income from Abroad	20
(x)	Profit	500
(xi)	Social Security Contribution by Employers	250

9. From the following data, calculate "Net Value Added at Factor Cost"

S.no.	Content	(Rs. in Lakhs)
(i)	Sales	400
(ii)	Change in Stock	(-) 20
(iii)	Intermediate consumption	200
(iv)	Net indirect taxes	40
(v)	Exports	50
(vi)	Depreciation	70

10. Calculate the Net National Product at Market Price from the given details

S.no.	Contents	(Rs. in Crores)
(i)	Mixed income of self-employed	8,000
(ii)	Depreciation	200
(iii)	Profit	1,000
(iv)	Rent	600
(v)	Interest	700
(vi)	Compensation of employees	3,000
(vii)	Net indirect taxes	500
(viii)	Net factor income to abroad	60
(ix)	Net exports	(-) 50
(x)	Net current transfers to abroad	20

11. If the Real GDP is Rs. 400 and Nominal GDP is Rs. 450, calculate price index (base=100)

12. Calculate Value of output from the following data:-

i) NVA fc	100 laks
ii) Intermediate consumption	75
iii) Excise duty	20
iv) Subsidy	5
v) Depreciation	10

HIGHER ORDER THINKING QUESTIONS

13. 'Machine purchased is always a final good' do you agree? Give reason for your answer.

14. 'Tertiary sector mostly produces final goods' comment.

15. Explain that Domestic territory is bigger than the political frontiers of a country.

16. Calculate Gross value added at factor cost of a firm: -

ITEMS	(Rs. IN LAKHS)
i. Value of output	300
ii. Change in stock	30
iii. Depreciation	20
iv. Net in direct taxes	30
v. Intermediate cost	200
vi. Export	15

17. Saving is both a virtue as well as vice. Explain How?

18. RBI has reduced CRR from 4.25% to 4%. Will this help in controlling inflation in India?

19. Out of the Bank rate policy and open market operations, which will you prefer in India?

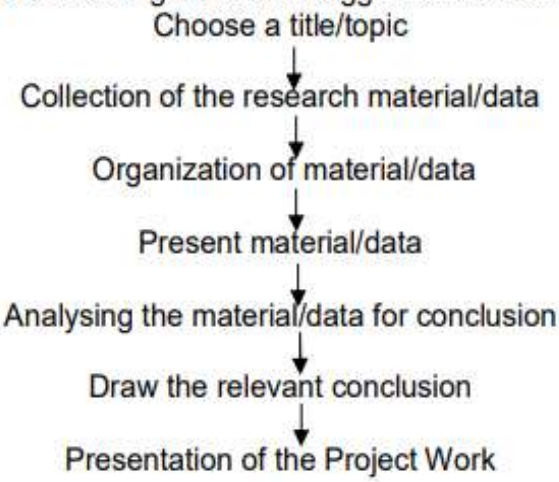
20. Which of the following is a bank?

(i) Post office saving banks (ii) LIC (iii) UTI (iv) IDBI

Guidelines for Project Work in Economics (Class XII)

Scope of the project:

Learners may work upon the following lines as a suggested flow chart:



Expected Checklist:

- Introduction of topic/title
- Identifying the causes, consequences and/or remedies
- Various stakeholders and effect on each of them
- Advantages and disadvantages of situations or issues identified
- Short-term and long-term implications of economic strategies suggested in the course of research
- Validity, reliability, appropriateness and relevance of data used for research work and for presentation in the project file
- Presentation and writing that is succinct and coherent in project file
- *Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.*

Mode of presentation/submission of the Project:

At the end of the stipulated term, each learner will present the research work in the Project File to the External and Internal examiner. **The questions should be asked from the Research Work/ Project File of the learner. The Internal Examiner should ensure that the study submitted by the learner is his/her own original work.** In case of any doubt, authenticity should be checked and verified.

Marking Scheme :

Marks are suggested to be given as –

S. No.	Heading	Marks Allotted
1.	Relevance of the topic	3
2.	Knowledge Content/Research Work	6
3.	Presentation Technique	3
4.	Viva-voce	8
	Total	20 Marks

Suggestive List of Projects: The topics has already been shared with the students via Google Classroom.

---------- **THE END** ----------

DDMS P OBUL REDDY PUBLIC SCHOOL

Holiday Home-Work 2020-2021

CLASS - XII **MARKS - 20**

Physical Education

GUIDELINES:

- The project should be of **15-20 pages A4 size white pages** (approx.),
- Only hand-written.
- Must add pictures relevant for the topic
- Cover page and index
- Must submit in **file folders**
- Creativity will carry extra marks

Instructions : Students need to attempt all topics compulsory given below that can even refer any additional material relevant to the topic.

1. what do you mean by knock out tournament? Draw the fixture of 19 teams on knockout basis.

2. What do you mean by specifiv sports programmes?Explain health run and run for unity in detail.

3.What do you mean by combination tournament? Explain withexamples.

4. Discuss the various tasks required for conductingsportstournament. Briefly explain the duties of various committees in the tournament.

5. Define extramurals. Write its objectives and principals extramurals.