

Class - XI

Subject - Physics

\* Short questions

- (1) State Newton's first law of motion.
- (2) Can a body in linear motion be in equilibrium?
- (3) A cricket player lowers his hands to catch the ball safely. Explain, why?
- (4) Why is it difficult to walk on sand?
- (5) A lift is going up with an acceleration  $2g$ . A man is inside the lift and his mass is  $m$ . What will be the reaction of the floor on the man?
- (6) On what factors does the coefficient of friction depend?

\* Long questions

- (1) A light string passing over a smooth pulley connects two blocks of masses  $m_1$  and  $m_2$  (vertically). If the acceleration of the system is  $g/8$ , find the ratio of the two masses.
- (2) State Newton's second law of motion. Derive a mathematical formula to calculate force if mass remains constant. Prove that it contains Newton's first law.
- (3) Prove - (a)  $v = u + at$  (b)  $s = ut + \frac{1}{2}at^2$  (c)  $v^2 = u^2 + 2as$  using integral method.
- (4) Show that path followed by a body projected at an angle  $\theta$  with the horizontal is parabolic.

J. K. Choudhary



## HOLIDAY HOMEWORK

SUB - MATHEMATICS

CLASS - XI SCIENCE

### SHORT ANSWER TYPE QUESTIONS

Q1. Find the domain and the range of the real function  $f$  defined

$$\text{by } f(x) = \frac{5}{3-x^2}$$

Q2. Convert 6 radians into degree measure.

Q3. Prove that  $\cos 2x \cos x - \cos 3x \cos 9x = \sin 5x \sin \frac{5x}{2}$

Q4. Find real  $\theta$  such that  $\frac{3+2i \sin \theta}{1-2i \sin \theta}$  is purely real.

Q5. Solve :  $\sec^2 2x = 1 - \tan 2x$

Q6. Solve the inequalities :

$$(i) \quad \frac{x}{2} \geq \frac{(5x-2)}{3} - \frac{(7x-3)}{5}$$

$$(ii) \quad \frac{(x-2)}{(x+5)} > 2$$

### LONG ANSWER TYPE QUESTIONS

(7) Find the modulus, conjugate and argument of the complex number

$$\frac{1+2i}{1-3i}$$

(8) Solve the following system of inequalities graphically:

$$x+2y \leq 10, \quad x+y \geq 1, \quad x-y \leq 0, \quad x \geq 0, \quad y \geq 0$$

(9) Find the equation of the set of points P, the sum of whose distances from A (4, 0, 0) and B (-4, 0, 0) is equal to 10.

(10) If  $\alpha$  and  $\beta$  are different complex numbers with  $|\beta| = 1$ , then

$$\text{find } \frac{|\beta - \alpha|}{|1 - \bar{\alpha}\beta|}$$





O. P. Jindal School, Palratu (Charkhand),  
Practice Sheet / Assignment.  
Session - 2022-23.

Class - xi

Subject - Physical Education.

Topic - 1. Olympism.

2. Yoga.

⇒ Short Answer Questions.

Q.no.1. Briefly Explain Ancient Olympics.

Q.no.2. Explain the Rules for Participations in Ancient  
-t Olympics.

Q.no.3. Describe the Olympic flag.

Q.no.4. How yoga is beneficial for us? Explain.

Q.no.5. Briefly Explain Yama and Niyama.

Q.no.6. What is Olympic motto?

⇒ Long Answer Questions.

Q.no.1. Describe the formation and objectives of  
International Olympic Committee.

Q.no.2. Briefly Explain Modern Olympic Games.

Q.no.3. Explain the Importance of yoga.

Q.no.4. Write the detailed note on the kinds of  
yogic kriyas.



# HOLIDAY HOME WORK

## ECONOMICS

class - XI

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▶ Long Answer Questions :-

Q1: Represent the following data relating to expenditure of family A and B with the Pie diagram:

Type of Com.	Expenditure in ₹	
	Family A	Family B
Food	300	500
Rent	200	350
Clothes	125	250
Education	110	225
Misc.	75	125
Savings	90	150

Q2: The following table shows the estimated sectoral real growth rates (percentage change over the previous year) in GDP at factor cost.

Year	Agriculture and allied sectors	Industry	Services
1994-95	5.0	9.2	7.0
1995-96	-0.9	11.8	10.3
1996-97	9.6	6.0	7.1
1997-98	-1.9	5.9	9.0
1998-99	7.2	4.0	8.3
1999-00	0.8	6.9	8.2

Represent the data as multiple time series graphs.

- Q3: Collect the views of Producers and Consumers (approximately 320 consumer and Producer), with the help of questionnaire (at least 25 questions) on the survey of "Impact of GST in the consumer market" and present the data in the form of table.
- Q4: P.E.D of two goods A and B is  $(-)$ 3 and  $(-)$ 4 respectively. Which of the two goods has higher elasticity and why?
- Q5: A consumer consumes good 'X'. Explain the effects of fall in the prices of related goods on the demand of "X". Use diagrams showing demand for good "X" on the x-axis and its price on y-axis.
- Q6: A consumer consumes only two goods X and Y whose prices are ₹5 and ₹4 respectively. If the consumer chooses a combination of the two goods with marginal utility of X equal to 4 and that of Y equal to 5, is the consumer in equilibrium? why or why not? What will a rational consumer do in this situation? Use Utility analysis.





► Short Answer Questions :-

- Q7: Explain the following:  
a) Why is an IC (i) downward sloping (ii) Convex.  
b) Why does a higher IC represent a higher level of satisfaction?
- Q8: Explain the central problem of "what to produce" with the help of an example.
- Q9: Define —  
i) Law of Demand  
ii) PPC  
iii) Law of DMU  
iv) Budget line and IC
- Q10: Draw a histogram, frequency curve and frequency polygon using an example.



कक्षा - एकादश (XI) हिंदी

दीर्घ-उत्तरीय प्रश्न

1. 'एक भारत, श्रेष्ठ भारत' विषय पर अनुच्छेद लेखन कीजिए।
2. अनियमित डाक वितरण के संबंध में पोस्टमास्टर को एक शिकायती पत्र लिखिए।
3. महेन्द्र सिंह धोनी पर फीचर लेखन कीजिए।
4. निजी होने हुए भी सार्वजनिक क्षेत्र में कुंईयों पर ग्राम समाज का अंकुश लगा रहता है। लेखन ने ऐसा क्यों कहा होगा?

लघु-उत्तरीय प्रश्न

1. राजस्थान में कुंई किसे कहते हैं? इसकी गहराई और व्यास तथा सामान्य कुंओं की गहराई और व्यास में क्या अंतर होगा?
2. धनराम गोहन को अपना प्रतिद्वंद्वी क्यों नहीं लभसता हथो?
3. मास्टर त्रिलोक सिंह के किस कथन को लेखक ने जवान की चाबुक कहा है और क्यों?
4. शिवशंभु की दो गायों की कहानी के माध्यम से लेखक क्या कहना चाहता है?
5. चंपा ने ऐसा क्यों कहा कि कलकत्ता पर बजर गिरे?
6. भाषा में झारखण्डीपन से क्या अभिप्राय है?

R.P. SINGH



Holiday Homework

Class - XI

Chemistry

Short Question:-

1. Give the main feature of Lewis approach of chemical bonding.
2. Define hybridization.
3. Give the Lewis dot structure of  $\text{HNO}_3$ ,  $\text{CO}$ ,  $\text{O}_3$ .
4. Give the main features of V.S.E.P.R Theory.
5. Draw the Resonating structure of  $\text{NO}_3^-$ ,  $\text{O}_3$ .
6. Write the significance of Octet Rule.

Long Question:-

1. In  $\text{H}_2\text{O}$ ,  $\text{H}_2\text{S}$ ,  $\text{H}_2\text{Se}$ ,  $\text{H}_2\text{Te}$  the bond angle decreases though all have the same bent shape. why?
2. Discuss the shape of the following molecule using the VSEPR model.  
(a)  $\text{BeCl}_2$  (b)  $\text{BCl}_3$  (c)  $\text{SiCl}_4$  (d)  $\text{AsF}_5$  (e)  $\text{H}_2\text{S}$
3. Which hybrid orbitals are used by carbon atom in the following molecules?  
(a)  $\text{CH}_3-\text{CH}_3$  (b)  $\text{H}_3\text{C}-\text{CH}=\text{CH}_2$  (c)  $\text{H}_3\text{C}-\text{CH}_2-\text{OH}$   
(d)  $\text{H}_3\text{C}-\text{CHO}$  (e)  $\text{CH}_3\text{COOH}$
4. (a) Describe the hybridisation in case of  $\text{PCl}_5$ . Why are the axial bond longer as compared to



to equatorial bonds?

(b) What is meant by the term bond order? Calculate the bond order of  $N_2$ ,  $O_2$ ,  $O_2^+$  and  $O_2^-$ .



SHORT QUESTIONS :-

- (1) Differentiate between
  - (a) Bilateral symmetry and radial symmetry
  - (b) Open type circulatory system and closed type circulatory system.
- (2) How would you distinguish monocots from dicots?
- (3) mention two major characteristics of Kingdom protista.
- (4) What is role of fruiting body in slime moulds.
- (5) Enumerate the different mode of reproduction found in fungi with suitable examples.
- (6) What do you mean by phylogenetic classification systems?

LONG QUESTIONS.

- (7) How the life cycle of ~~Algae~~ algae is different from that of bryophytes?
- (8) What are the roles of microsporangia and megasporangia in gymnosperms.



9 write the biological name of following.

(i) pathogen of malaria

(ii) Banyan tree

(iii) Sheesham plant

(iv) python

(v) Causative agent of elephantiasis.

15. Explain briefly the following with suitable examples.

(i) in gamy

(ii) archegonium

(iii) diplontic

(iv) taxon

(v) alternation of generation.

—————>



## Holiday Homework

Class - XI

Sub: Info. Prac.

1. Short answer type questions:-

(i) What is cache memory? why is it considered crucial for a microprocessor's performance?

(ii) Python is a free and open source language? what do you understand by this feature?

(iii) what are tokens in python? How many types of tokens are allowed in python?

(iv) write a program to read three numbers in three variables and swap first two variables with the sum of first and second, second and third numbers respectively.

(v) write a program to accept three integers and print the largest of three. Make use of only if statement.

(vi) Write a program to display a menu for calculating area of a circle or perimeter of a circle.

2. Long answer type questions:-

(i) what are data types? what are python's built-in core data types?



(ii) Write a program in python to calculate and print roots of quadratic equation:  
 $ax^2 + bx + c = 0$  (~~a~~  $(a \neq 0)$ )

(iii) What is following code doing? What would it print for input as 3?

```
n = int(input("Enter an integer:"))  
if n < 1:  
    print("Invalid value")  
else:  
    p = n**4  
    print(p+5)
```

(iv) Write a program to input length of three sides of a triangle. Then check if those sides will form a triangle or not.  
(Rule is:  $a+b > c$ ;  $b+c > a$ ;  $c+a > b$ )



## Holiday Home work

Class - X (Com) Sub-maths (Applied 1)

Chapter - Limit and Continuity, permutations & combinations

### Short answer type questions

(1) Evaluate  $\lim_{x \rightarrow 3} \frac{x^3 - 3^3}{x - 3}$

(2) If  $\lim_{x \rightarrow 2} \frac{x^2 - 2^2}{x - 2} = 4$ , Is it correct.

(3) If  $\lim_{x \rightarrow 5} \frac{x^2 - 5^2}{x - 5}$  is equal to 625, find  $n$ .

(4) Evaluate  ${}^nC_{17} = {}^nC_{16}$  find  $n$

### Long Answer type Questions

Q(1) If  $f(x) = \begin{cases} x+4, & x \leq 1 \\ x-4, & x > 1 \end{cases}$  then

Examine the continuity at  $x=1$

Q(2) Evaluate  $\lim_{x \rightarrow 5} \frac{e^x - e^5}{x - 5}$

Q(3) find  $n$  if  ${}^nP_4 = 24$



Q (A) How many words meaning full or meaningful can be formed using all letters of the word ENGINEER.

Q (5) If  ${}^nC_{15} = {}^nC_{19}$  find  ${}^nC_{32}$

Q (6) Evaluate

$${}^4C_0 + {}^5C_1 + {}^6C_2 + {}^7C_3$$

Q

Sub/Teacher - Narayan K. Saha



Accountancy Class XI

- 01 Explain any four principles of Accounting.
- 02 "The role of accounting has changed over the period of time." Do you agree? Explain.
- 03 Explain any four properties of G.P.T.
- 04 Explain various steps of posting from Journal.
- 05 Show the effect of following transactions on the accounting equation: -

(a) Manoj started business with	₹
(i) cash	2 30 000
(ii) Goods	1 00 000
(iii) Buildings	2 00 000
(b) He purchased goods for cash	50 000
(c) He sold goods (costing ₹ 20 000)	35 000
(d) He purchased goods from Rahul	55 000
(e) He sold goods to Varun (costing ₹ 52 000)	60 000
(f) He paid cash to Rahul in settlement	53 000
(g) Salary paid by him	20 000
(h) Received cash from Varun in full settlement	59 000
(i) Rent outstanding	3 000
(j) Prepaid Insurance	2 000
(k) Commission received by him	13 000
(l) Amount withdrawn by him for personal use.	20 000
(m) Depreciation charge on Building -	10 000
(n) Fresh capital invested	50 000
(o) Purchased goods from Rakhe	10 000



(05)

Journalise the following transaction in the books of Sanjans:-

January, 2017.		₹
01.	Cash in hand.	6000
	Cash at Bank	55000
	Stock of goods.	40000
	Due to Rohan	6000
	Due from Tarun	10000
03.	Sold goods to Karun.	15000
04.	Cash sales-	10000
06.	Goods sold to Heena -	5000
07.	Purchased goods from Rupali°	30000
10.	Goods returned from Karun.	2000
11.	Cash received from	13000
15.	cheque given to Rohan	6000
16.	Cash received from Heena.	3000
20.	Cheque received from Tarun.	10000
22.	Cheque received from Heena.	2000
23.	Cash given to Rupali°	18000
26.	Paid cartage	1000
27.	Salary	8000
28.	Cash sales	7000
30.	Sanjans Took goods for personal use-	4000
30.	cheque given to Rupali°	12000
31.	Paid General expenses	500.

(06)

Post above transaction into the ledger.

(07)

Prepare double column cash Book for January 2017:-

Jan. 01.		₹
	Cash in hand	3500
	Bank overdraft	2300
03.	Goods purchase for cash	1200
05.	paid wages	200
10.	Cash sales	8000
15.	deposited into Bank	6000
22.	Sold goods for cheque which was deposited into Bank same day ₹ 2000	



25	paid Rent by cheque	1200
28	Draw from Bank for personal use	1000
31	Bought goods by cheque	1000

(08) Enter the following transaction in the Purchase Journal (Book) of M/s Ganga Traders of July 2017.

01 Bought from Rahul Traders as per Invoice no. 20041.

40 Register @ ₹ 60 each

80 Gel Pens @ ₹ 15 each.

50 note Books @ ₹ 20 each.

SGST @ 8%

CST @ 8%

Trade discount 10%.

15 Bought from Global Stationers as per Invoice no. 1132

40 Ink Pens @ ₹ 8 each

50 files @ ₹ 10 each

20 Color Books @ ₹ 20 each

IGST 12%

Trade discount 5%.

23 Purchased from Lamba Furniture as per Invoice as No. HH 3201

2 chairs @ 600 per chair.

1 Table @ 1000 per table.

25. Bought from Mr Mumbai Traders as per Invoice no. 1111.

10 Paper Rim @ ₹ 10 per coil

400 drawing sheets @ ₹ 20 per coil

20 packets water colour @ ₹ 40 per packet.

SGST 9%

CST 9%

Trade discount 25%



09

Post into ledger from Subsidiary Book (Ques to 08).

10

Record the following transaction in the with a weekly imprest ₹ 500.  
2017.

January		₹
24	Stationery	100
25	Bus fare	12
	Cartage	40
26	Taxi fare	80
27	Wages to casual labour	90
29	Postage	80



1. Make a chart of 4 columns to mention the title, author's name and list of characters with relations, of the chapters of Prose section of both the books (Hornbill & Snapshot)

e.g.

Sl. No.	Title	Author's Name	List of characters
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2. Write the chapter highlights of the stories/articles read in your text books.  
[Express in 10 major events]
3. Write all the literary devices used in the (various poems that you have read so far) poems of your text book. Write with examples.
4. You have just moved to Kolkata. You wish to hire a place to stay. Place an advertisement in the classified columns of a local newspaper giving your requirements and other details.
5. Answer the following questions in 30-40 words:-
  - (i) The poem 'The Voice of the Rain' reflects the comparison of rain and music. Explain.
  - (ii) Tut was buried in March - April. How did Carter conclude this?



(iii) How many people were there in the boat?  
What was the adventurous task taken by them?

(iv) Who was Mrs. Fitzgerald? What does she advise  
Mrs. Pearson?

— x —



O. P. Jindal School  
Balkudra

Geepawale Vacation Home assignment

Class XI Sec. C Sub. B-SF

- 01 Define commerce and explain any four functions of it.
- 02 Define Business. Explain any three features of it.
03. Describe the privileges of private company over Public company.
- 04
- 05 Explain in brief, various factors to be kept in mind before starting a business.
- 06 Differentiate between Sole proprietorship, Partnership and Joint stock Co. (any six)
- 07 Define J.H.F and Explain any five merits of it.
- 08 Explain any three merits and three demerits of Co-operative society.
- 09 Distinguish between Memorandum of Association and Articles of Association.
- 10 Explain various factors to be kept in mind before selection of the form of Business.