



# SUMMER VACATION

## Holiday Homework

### Grade – XII (Science)





Summers again and its time for a break. Let us break the monotony of doing the home assignments by completing them under the guidance of their teachers and parents. **The summer vacation begins from 27<sup>th</sup> May,2022 and school will reopen on 4<sup>th</sup> July,2022. Parents can download holidays homework from school's website i.e [www.lotusvalley.edu.in](http://www.lotusvalley.edu.in) or Ecare- App.**

Here are few suggestions for parents:-

- Make sure that you are spending quality time with your wards. It is very important to keep their anxiety at minimum.
- Giving them small responsibilities in household chores will aid them to be independent.
- Teach them the importance of moral values in their life.

Also students can :-

- Read book, May it be fairy books, encyclopedia or comic books. Explore the imaginative world and go on a fantasy tour.
- Run, exercise, sweat! Channelize your energy and enjoy playing indoor games.
- Enhance communication skills by conversing with your friends and family in English.
- Explore the culture and heritage of the world by visiting heritage sites virtually. Download the app "Google Earth" and enjoy virtual tours around the Earth.

**Wish you all a fun filled, safe and healthy holidays ahead!**



### Instructions for completing assignments-

- All the assignments are to be done in subject notebook with proper date and headings.
- The written part should be neatly presented in student's handwriting. Take the help of your parents if necessarily required.
- Remember a well presented 'Holiday Homework' fetches your marks and appreciation of your teachers and classmates. It carries 10 marks.
- Revise all the work done in class till date.

### ENGLISH

#### Speaking activity

- a) Drug Addiction and Youth
- b) Consumer Rights and Consumer Awareness
- c) Indian Democracy and Media Responsibility
- d) Donate for a noble cause
- e) All Entrance Tests should be abolished
- f) Rising Crime Rates- Value Based Education is the only answer

### **An Elementary School Classroom in a Slum**

Far from gusty waves these children's faces.

Like rootless weeds, the hair torn round their pallor:

- 1 The tall girl with her weighed-down head. The paperseeming boy, with rat eyes.

Answer the following.

- (a) The children's faces wore signs of their rootless condition. (True/False)
- (b) The tall girl bows her head with the burden of studies. (True/False)
- (c) From which type of landscape is the location described in these lines, far from?
- (d) \_\_\_\_\_ in the boy's face have been compared to a rat.

- 2 ...Open-handed map

Awarding the world its world. And yet, for these  
Children, these windows, not this map, their world,  
Where all their future's painted with a fog,  
A narrow street sealed in with a lead sky  
Far far from rivers, capes, and stars of words.

Answer the following.

- (a) For the children in the classroom the only world that they know of is outside their classroom windows. (True/False)
- (b) The map in the classroom is pinned to the window of the classroom. (True/False)
- (c) The school is located in a \_\_\_\_\_ street.
- (d) The future of the children is dull and has been compared to a \_\_\_\_\_.

- 3 Surely, Shakespeare is wicked, the map a bad example,  
With ships and sun and love tempting them to steal—  
For lives that slyly turn in their cramped holes  
From fog to endless night? On their slag heap, these children  
Wear skins peeped through by bones and spectacles of steel  
With mended glass, like bottle bits on stones.

Answer the following.

- (a) The map is a bad example for the children as it tempts hopes in the children. (True/False)
- (b) After seeing ships and sunshine, the children's minds are slyly turning in their cramped \_\_\_\_\_.
- (c) The children's living quarters are described as \_\_\_\_\_ heaps.
- (d) What metal is used to make the children's spectacle frames?

- 4 What changes does the poet hope for in the lives of slum children?
- 5 What message does Stephen Spender convey through his poem 'An Elementary School Classroom in a Slum'?
- 6 What is the theme of the poem?

7 How does the poet describe the classroom walls? What do they symbolize?

Or

What do you think is the colour of 'sour cream'? Why do you think the poet has used this expression to describe the classroom walls?

8 How is the world depicted on the classroom walls different from the world of slum children?

Or

The walls of the classroom are decorated with the pictures of 'Shakespeare', 'buildings with domes', 'World maps' and beautiful valleys. How do these contrast with the world of these children?

9 What does the poet want for children of the slums? How can their lives be made to change?

10 What does the world of the slum children consist of?

### **Journey to the End of the Earth**

What emotions did the author experience when she reached Antarctica at last?

1

2 What is the visual experience in Antarctica?

3 How has Antarctica sustained itself and managed to remain pristine?

4 What are the reasons for the success of the Students on Ice programme?

5 What is that beauty of balance that a trip to Antarctica unfolded to the author?

6 Why does the author conclude the chapter by saying that a lot can happen in a million years, but what a difference a day makes?

7 Why is it necessary to remain fully equipped while walking on ice?

8 What is the significance of the title 'Journey to the End of the Earth'?

9 What makes Antarctica an ideal subject of study?

10 The author states that her Antarctic experience was full of epiphanies, but the best occurred just short of the Antarctic Circle of 65–55 degrees south? Explain.

### **The Third Level**

What does the narrator think of Grand Central? What does it symbolize?

1

2 What strange things did the narrator see when he reached the third level of Grand Central?

3 What did the narrator do to make sure that he was actually at the third level of Grand Central?

4 Why did the narrator turn towards the ticket windows? Why did he run back from there?

- 5 What did the narrator do the next day?
- 6 Why could Charley not be convinced by his distractions that the third level was only a wish fulfilment?
- 7 What happened to the narrator's psychiatrist friend Sam Weiner? What do you deduce from it?
- 8 What had Sam Weiner written on the paper in the first-day cover?
- 9 *But that's the reason, he said, and my friends all agreed. Everything points to it, they claimed. My stamp collecting, for example; that's a 'temporary refuge from reality.' Well, maybe, but my grandfather didn't need any refuge from reality; things were pretty nice and peaceful in his day, from all I hear, and he started my collection. It's a nice collection too, blocks of four of practically every U.S. issue, first-day covers, and so on. President Roosevelt collected stamps too, you know.* (a) Which place is referred to as the Third Level in the story of the similar name? (i) The Grand Central Station of London (ii) The Grand Airport of London (iii) The Grand Central Airport of New York (iv) The Grand Central Station of New York (b) Stamp collecting hobby is known by another name. What is it? (i) Philately (ii) Calligraphy (iii) Landscaping (iv) Sculpting (c) What do the first-day covers refer to? (i) cover of the book (ii) a gift pack (iii) an envelope with a stamp on the first day of its release (iv) a hard-bound book (d) What does the phrase 'temporary refuge from reality' mean in the story? (i) A temporary escape from reality (ii) A shelter home (iii) An escape for a long period (iv) A forever escape from reality
- 10 *Now, I don't know why this should have happened to me. I'm just an ordinary guy named Charley, thirty-one years old, and I was wearing a tan gabardine suit and a straw hat with a fancy band; I passed a dozen men who looked just like me. And I wasn't trying to escape from anything; I just wanted to get home to Louise, my wife.*

*I turned into Grand Central from Vanderbilt Avenue, and went down the steps to the first level, where you take trains like the Twentieth Century. Then I walked down another flight to the second level, where the suburban trains leave from, ducked into an arched doorway heading for the subway — and got lost.*

(a) What had happened to 'I'?

- (i) He was becoming forgetful.
- (ii) He wasn't feeling too well.
- (iii) He had forgotten his way.
- (iv) He had lost his office files.

(b) Charley's age as mentioned in the extract is \_\_\_\_\_.

- (i) early thirties
- (ii) mid-thirty
- (iii) late thirties
- (iv) late twenties

(c) Where was Charley headed towards?

- (i) Mall
- (ii) Theatre
- (iii) Home
- (iv) Church

(d) Charley passed by a \_\_\_\_\_ men who looked just like him.

- (i) few
- (ii) many
- (iii) half-a-dozen
- (iv) dozen

## PHYSICS

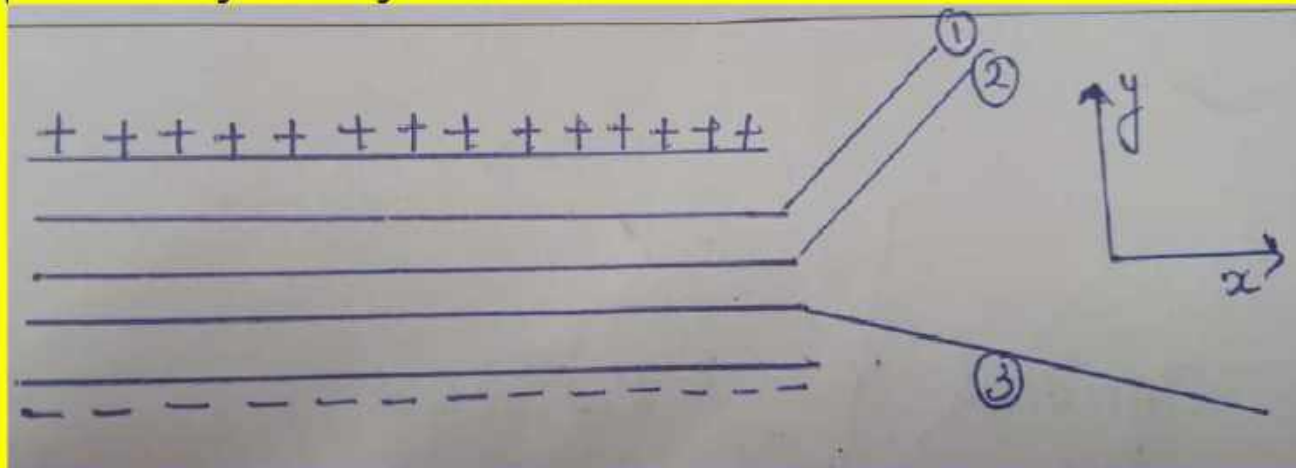
Q1. a. Explain the meaning of statement 'electric charge of Body is quantised'.

b. Why can one ignore quantisation of electric charge when dealing with macroscopic i.e large scale charges?

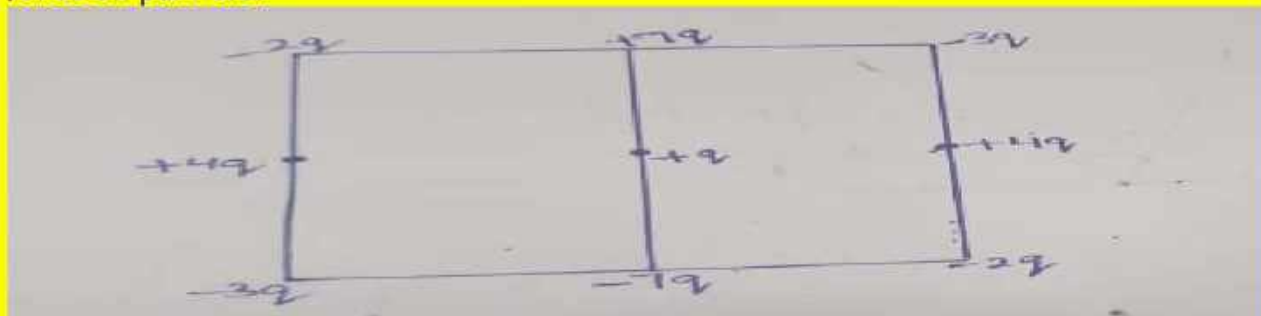
Q2. Coloumb's Law in Vector form:

Q3. States Superposition principal with proof:

Q4. Fig. Shows tracks of three charged static field. Five sign of three charges, which particle has highest charge to mass ratio?



Q5. A particle carrying charge  $+q$  is held at the centre of square of each side 1 mts. It is surrounded by eight charges arranged on square as shown in fig. If  $Q=2 \mu\text{C}$ . What is net force on particle?



Q6. Two charges  $5 \times 10^{-8} \text{ C}$  and  $-3 \times 10^{-8} \text{ C}$  are located 16 cm. apart. At what position on the line joining the two charges is the electric potential zero? Take the potential at infinity to be zero.

Q7. Electric field Intensity due to a dipole:

a. On Axial Line.

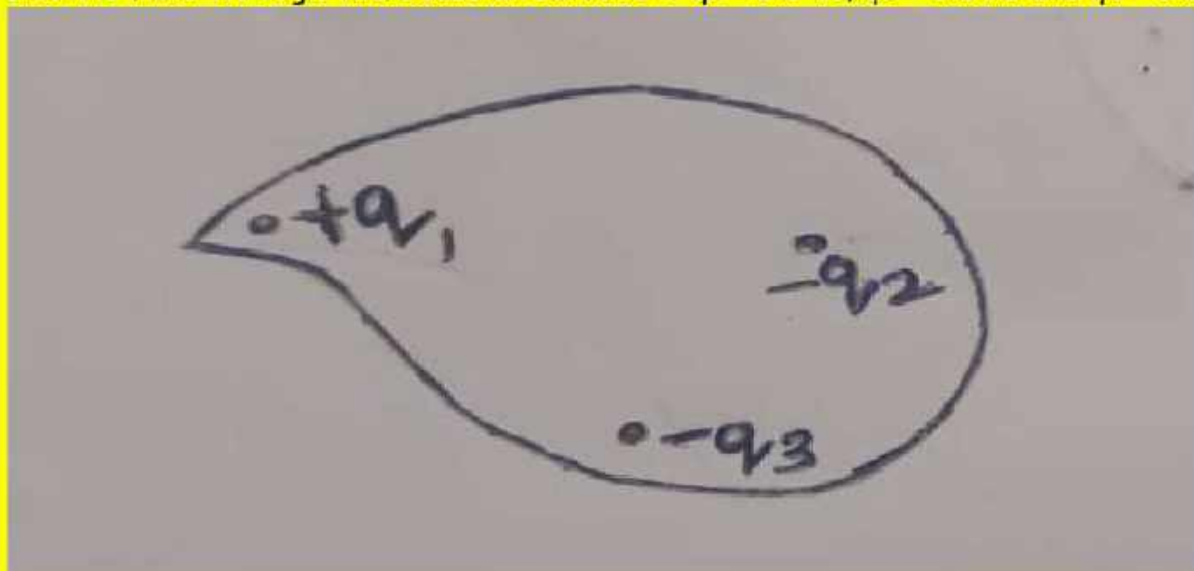
b. On Equatorial Line.

c. At any Point

Q8. Torque Acting on Dipole in Uniform Electric field.

Q9. State and explain Gauss theorem for electrostatic.

Q10. Given fig. Shows three charges enclosed by Gaussian surface. What is the flux of electric field through the Gaussian surface if  $q_1=+3.0 \text{ nC}$ ,  $q_2=-6.0 \text{ nC}$  and  $q_3=-3.0 \text{ nC}$ .





### SOLUTIONS

16. What are ideal solutions? What type of solutions are generally ideal?
17. What is non-ideal solution. What types of deviations from ideal behavior are shown by mixture of (i) ethanol and cyclohexane (ii) chloroform and acetone? Give reason for such deviations.
18. What is azeotropic mixture?
19. What is the sign  $\Delta H$  and  $\Delta V$  for non-ideal solution showing (i) positive deviation (ii) negative deviation. Explain.
20. What are colligative properties? What is their use?
21. Define osmosis. Who discovered this phenomenon?
22. Which method is used for osmosis pressure measurement?
23. Which colligative property is preferred for molar mass determination of macromolecules and why?

### BIOLOGY

**Complete Practical file till 5 experiments.**

**Do the given assignment in a separate holiday's homework notebook**

#### ASSIGNMENT QUESTIONS

1. Lactational Amenorrhea is a method of contraception. Justify. What is the maximum effectiveness of this method in terms of period/duration?
2. How are non-medicated IUD'S different from hormone-releasing IUD'S? Give examples.
3. How does Cu-T act as a contraceptive?
4. What are Test tube babies? Are they different from normal babies?
5. What does GIFT represent?
6. Explain the structure of megasporangium and female gametophyte with diagram.
7. Even though microspore has 2 male gametes why a plant requires 10 microspores to fertilize 10 ovules.
8. Design the various steps that you would plan to combine desirable characters of 2 species. What are such experiments called?
9. Draw LS of flower showing growth of pollen tube.
10. Draw a dicot embryo before and after a heart-shaped embryo is formed.
11. Give reasons why:
  - a. Pollen products are sold in the market
  - b. Yucca moth deposits its eggs in the ovary locule of yucca plant.
  - c. Pollen of the wrong type does not germinate on stigma.
  - d. Active research is on to understand genetics of apomixis.
  - e. Pollens are well preserved in fossils.
12. a. Due to congenital defect, a woman does not have fimbriae in the fallopian tube. How will it affect her?
  - b. What is the difference between spermiogenesis and spermiation?
13. What is the role of LH in a human male and female?
14. Justify giving reasons:
  - a. Corpus luteum secretes large amounts of progesterone if egg is fertilized.
  - b. During pregnancy there is an increase in the levels of hormones like estrogens,



progesterons , cortisol ,prolactin,thyroxine etc in maternal blood.

c. Colostrum is absolutely essential for the newborn.

d. Placenta can be referred to as ' transporting organ '.

15. List out the sequence of events after fertilization to implantation of the human embryo .
16. How many primary follicle will be there at the time of puberty in the human ovary
17. Explain how Mendel carried out the hybridization experiment in pea plant .
18. What is the meaning of chromosomes? Why was it named so?
19. How did Morgan use symbols for his dihybrid cross .Explain with examples?
20. Give an example of an insect in which the sex determination is similar to man .Justify why ?
21. Give the aminoacid sequence of HbA peptide upto the 7 aminoacid in a normal haemoglobin .
22. Give appropriate names for the following :
  - a. DNA wrapped round histone octomere.
  - b. Beads on string structure in nucleus
  - c. Transcriptionally active chromatin .
23. When heat killed S strain was treated with enzyme 'X' and mixed with live R strain and injected into mice ,there was no transformation .Explain the above result and identify 'X ' .
24. When a virus is grown in radioactive phosphorus medium why is the radioactivity detected only in its DNA?
25. State the various conclusions derived by Griffith in his experiment .

### PHYSICAL EDUCATION

Make a project report on yoga

### Information Technology

Revise Employability Skills - IV

### Music Vocal

प्रश्न 1 निम्नलिखित पर संक्षिप्त टिप्पणी कीजिए।

अलंकार कन खटका मीड आलाप तान।

प्रश्न 2 राग भैरव का संपूर्ण परिचय लिखिए।

प्रश्न 3 रागों के समय सिद्धांत के विषय में विस्तार से लिखिए।

प्रश्न 4 झप ताल रूपक ताल धमार ताल का परिचय 1 गुण 2 गुण 3 गुण व चौगुन सहित लिखिए।

प्रश्न 5 अपनी प्रैक्टिकल फाइल पूरी करें।

## ASSIGNMENTS

### (i). Order, Addition, Multiplication and transpose of matrices:

#### LEVEL I

1. If a matrix has 5 elements, what are the possible orders it can have? [CBSE 2011]
2. Construct a  $3 \times 2$  matrix whose elements are given by  $a_{ij} = \frac{1}{2}i - 3j$
3. If  $A = \begin{bmatrix} 1 & 2 & 3 \\ 3 & 1 & 3 \end{bmatrix}$ ,  $B = \begin{bmatrix} 2 & 3 & 1 \\ 1 & 0 & 2 \end{bmatrix}$ , then find  $A - 2B$ .
4. If  $A = \begin{bmatrix} 2 & 1 & 4 \\ 4 & 1 & 5 \end{bmatrix}$  and  $B = \begin{bmatrix} 3 & -1 \\ 2 & 2 \\ 1 & 3 \end{bmatrix}$ , write the order of  $AB$  and  $BA$ .

#### LEVEL II

1. For the following matrices  $A$  and  $B$ , verify  $(AB)^T = B^T A^T$ ,  
where  $A = \begin{bmatrix} 1 \\ -4 \\ 3 \end{bmatrix}$ ,  $B = \begin{bmatrix} -1 & 2 & 1 \end{bmatrix}$
2. Give example of matrices  $A$  &  $B$  such that  $AB = O$ , but  $BA \neq O$ , where  $O$  is a zero matrix and  $A, B$  are both non zero matrices.
3. If  $B$  is skew symmetric matrix, write whether the matrix  $(ABA^T)$  is Symmetric or skew symmetric.
4. If  $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$  and  $I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ , find  $a$  and  $b$  so that  $A^2 + aI = bA$

#### LEVEL III

1. If  $A = \begin{bmatrix} 2 & 0 & 1 \\ 2 & 1 & 3 \\ 1 & -1 & 0 \end{bmatrix}$ , then find the value of  $A^2 - 3A + 2I$
2. Express the matrix  $A$  as the sum of a symmetric and a skew symmetric matrix, where:  
 $A = \begin{bmatrix} 3 & -2 & -4 \\ 3 & -2 & -5 \\ -1 & 1 & 2 \end{bmatrix}$
3. If  $A = \begin{bmatrix} a & b \\ 0 & 1 \end{bmatrix}$ , prove that  $A^n = \begin{bmatrix} a^n & \frac{b(a^n - 1)}{a - 1} \\ 0 & 1 \end{bmatrix}$ ,  $n \in \mathbb{N}$

### (ii) Cofactors & Adjoint of a matrix

#### LEVEL I

1. Find the co-factor of  $a_{12}$  in  $A = \begin{bmatrix} 2 & -3 & 5 \\ 6 & 0 & 4 \\ 1 & 5 & -7 \end{bmatrix}$
2. Find the adjoint of the matrix  $A = \begin{bmatrix} 2 & -1 \\ 4 & 3 \end{bmatrix}$

#### LEVEL II

Verify  $A(\text{adj}A) = (\text{adj}A)A = |A|I$  if

1.  $A = \begin{bmatrix} 2 & 3 \\ -4 & -6 \end{bmatrix}$
2.  $A = \begin{bmatrix} 1 & 2 & 3 \\ 2 & 3 & 2 \\ 3 & 3 & 4 \end{bmatrix}$

### (iii) Inverse of a Matrix & Applications

#### LEVEL I

1. If  $A = \begin{bmatrix} 2 & 3 \\ 5 & -2 \end{bmatrix}$ , write  $A^{-1}$  in terms of  $A$  CBSE 2011
2. If  $A$  is square matrix satisfying  $A^2 = I$ , then what is the inverse of  $A$ ?
3. For what value of  $k$ , the matrix  $A = \begin{bmatrix} 2-k & 3 \\ -5 & 1 \end{bmatrix}$  is not invertible?

#### LEVEL II

1. If  $A = \begin{bmatrix} 3 & -5 \\ -4 & 2 \end{bmatrix}$ , show that  $A^2 - 5A - 14I = O$ . Hence find  $A^{-1}$
2. If  $A, B, C$  are three non zero square matrices of same order, find the condition on  $A$  such that  $AB = AC \Rightarrow B = C$ .

3. Find the number of all possible matrices  $A$  of order  $3 \times 3$  with each entry 0 or 1 and for which  $A \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 1 \\ 0 \\ 0 \end{bmatrix}$  has exactly two distinct solutions.

### LEVEL III

1. If  $A = \begin{bmatrix} 2 & 3 & 1 \\ -3 & 2 & 1 \\ 5 & -4 & -2 \end{bmatrix}$ , find  $A^{-1}$  and hence solve the following system of equations:  
 $2x + 3y + 5z = 11$ ,  $3x + 2y + 4z = -5$ ,  $x + y + 2z = -3$

2. Using matrices, solve the following system of equations:

a.  $x + 2y - 3z = -4$   
 $2x + 3y + 2z = 2$   
 $3x - 3y - 4z = 11$

[CBSE 2011]

b.  $4x + 3y + 2z = 60$   
 $x + 2y + 3z = 45$   
 $6x + 2y + 3z = 70$

[CBSE 2011]

3. Find the product  $AB$ , where  $A = \begin{bmatrix} 1 & -1 & 0 \\ 2 & 3 & 4 \\ 0 & 1 & 2 \end{bmatrix}$ ,  $B = \begin{bmatrix} 2 & 2 & -4 \\ -4 & 2 & -4 \\ 2 & -1 & 5 \end{bmatrix}$  and use it to solve the equations  $x - y = 3$ ,  $2x + 3y + 4z = 17$ ,  $y + 2z = 7$

4. Using matrices, solve the following system of equations:

$$\frac{1}{x} - \frac{1}{y} + \frac{1}{z} = 4$$

$$\frac{2}{x} + \frac{1}{y} - \frac{3}{z} = 0$$

$$\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 2$$

5. Using elementary transformations, find the inverse of the matrix

$$\begin{bmatrix} 1 & 2 & -2 \\ -1 & 3 & 0 \\ 0 & -2 & 1 \end{bmatrix}$$

(iv) To Find The Difference Between  $|A|$ ,  $|adjA|$ ,  $|kA|$

### LEVEL I

1. Evaluate  $\begin{vmatrix} \cos 15^\circ & \sin 15^\circ \\ \sin 75^\circ & \cos 75^\circ \end{vmatrix}$  [CBSE 2011]
2. What is the value of  $|3I|$ , where  $I$  is identity matrix of order 3?
3. If  $A$  is non singular matrix of order 3 and  $|A| = 3$ , then find  $|2A|$
4. For what value of  $a$ ,  $\begin{bmatrix} 2a & -1 \\ -8 & 3 \end{bmatrix}$  is a singular matrix?

### LEVEL II

1. If  $A$  is a square matrix of order 3 such that  $|adjA| = 64$ , find  $|A|$
2. If  $A$  is a non singular matrix of order 3 and  $|A| = 7$ , then find  $|adjA|$

4. Express  $A = \begin{bmatrix} 3 & 2 & 3 \\ 4 & 5 & 3 \\ 2 & 4 & 5 \end{bmatrix}$  as the sum of a symmetric and a skew-symmetric matrix.

5. Let  $A = \begin{bmatrix} -1 & -4 \\ 1 & 3 \end{bmatrix}$ , prove by mathematical induction that :  $A^n = \begin{bmatrix} 1-2n & -4n \\ n & 1+2n \end{bmatrix}$ .

6. If  $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$ , find  $x$  and  $y$  such that  $A^2 + xI = yA$ . Hence find  $A^{-1}$ .

7. Let  $A = \begin{bmatrix} 0 & -\tan \frac{\alpha}{2} \\ \tan \frac{\alpha}{2} & 0 \end{bmatrix}$  and  $I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ . Prove that  $I + A = (I - A) \begin{bmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{bmatrix}$ .

8. Solve the following system of equations :  $x + 2y + z = 7$ ,  $x + 3z = 11$ ,  $2x - 3y = 1$ .

9. Find the product  $AB$ , where  $A = \begin{bmatrix} -4 & 4 & 4 \\ -7 & 1 & 3 \\ 5 & -3 & -1 \end{bmatrix}$  and  $B = \begin{bmatrix} 1 & -1 & 1 \\ 1 & -2 & -2 \\ 2 & 1 & 3 \end{bmatrix}$  and use it to solve

the equations  $x - y + z = 4$ ,  $x - 2y - 2z = 9$ ,  $2x + y + 3z = 1$ .

10. Find the matrix  $P$  satisfying the matrix equation  $\begin{bmatrix} 2 & 1 \\ 3 & 2 \end{bmatrix} P \begin{bmatrix} -3 & 2 \\ 5 & -3 \end{bmatrix} = \begin{bmatrix} 1 & 2 \\ 2 & -1 \end{bmatrix}$ .

Lab Manual work

Complete 5 Lab Manual practical's discussed in Class.





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- Teach them the importance of moral values in their life.

Also students can :-

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- Run, exercise, sweat! Channelize your energy and enjoy playing indoor games.
- Enhance communication skills by conversing with your friends and family in English.

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Far from gusty waves these children's faces.

Like rootless weeds, the hair torn round their pallor:

- 1 The tall girl with her weighed-down head. The paperseeming boy, with rat eyes.

Answer the following.

- (a) The children's faces wore signs of their rootless condition. (True/False)
- (b) The tall girl bows her head with the burden of studies. (True/False)
- (c) From which type of landscape is the location described in these lines, far from?
- (d) \_\_\_\_\_ in the boy's face have been compared to a rat.

- 2 ...Open-handed map

Awarding the world its world. And yet, for these  
Children, these windows, not this map, their world,  
Where all their future's painted with a fog,  
A narrow street sealed in with a lead sky  
Far far from rivers, capes, and stars of words.

Answer the following.

- (a) For the children in the classroom the only world that they know of is outside their classroom windows. (True/False)
- (b) The map in the classroom is pinned to the window of the classroom. (True/False)
- (c) The school is located in a \_\_\_\_\_ street.
- (d) The future of the children is dull and has been compared to a \_\_\_\_\_.

- 3 Surely, Shakespeare is wicked, the map a bad example,  
With ships and sun and love tempting them to steal—  
For lives that slyly turn in their cramped holes  
From fog to endless night? On their slag heap, these children  
Wear skins peeped through by bones and spectacles of steel  
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- (d) What metal is used to make the children's spectacle frames?

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- 5 What message does Stephen Spender convey through his poem 'An Elementary School Classroom in a Slum'?
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Or

The walls of the classroom are decorated with the pictures of 'Shakespeare', 'buildings with domes', 'World maps' and beautiful valleys. How do these contrast with the world of these children?

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What emotions did the author experience when she reached Antarctica at last?

1

2 What is the visual experience in Antarctica?

3 How has Antarctica sustained itself and managed to remain pristine?

4 What are the reasons for the success of the Students on Ice programme?

5 What is that beauty of balance that a trip to Antarctica unfolded to the author?

6 Why does the author conclude the chapter by saying that a lot can happen in a million years, but what a difference a day makes?

7 Why is it necessary to remain fully equipped while walking on ice?

8 What is the significance of the title 'Journey to the End of the Earth'?

9 What makes Antarctica an ideal subject of study?

10 The author states that her Antarctic experience was full of epiphanies, but the best occurred just short of the Antarctic Circle of 65–55 degrees south? Explain.

### **The Third Level**

What does the narrator think of Grand Central? What does it symbolize?

1

2 What strange things did the narrator see when he reached the third level of Grand Central?

3 What did the narrator do to make sure that he was actually at the third level of Grand Central?

4 Why did the narrator turn towards the ticket windows? Why did he run back from there?



- 5 What did the narrator do the next day?
- 6 Why could Charley not be convinced by his distractions that the third level was only a wish fulfilment?
- 7 What happened to the narrator's psychiatrist friend Sam Weiner? What do you deduce from it?
- 8 What had Sam Weiner written on the paper in the first-day cover?
- 9 *But that's the reason, he said, and my friends all agreed. Everything points to it, they claimed. My stamp collecting, for example; that's a 'temporary refuge from reality.' Well, maybe, but my grandfather didn't need any refuge from reality, things were pretty nice and peaceful in his day, from all I hear, and he started my collection. It's a nice collection too, blocks of four of practically every U.S. issue, first-day covers, and so on. President Roosevelt collected stamps too, you know.* (a) Which place is referred to as the Third Level in the story of the similar name? (i) The Grand Central Station of London (ii) The Grand Airport of London (iii) The Grand Central Airport of New York (iv) The Grand Central Station of New York (b) Stamp collecting hobby is known by another name. What is it? (i) Philately (ii) Calligraphy (iii) Landscaping (iv) Sculpting (c) What do the first-day covers refer to? (i) cover of the book (ii) a gift pack (iii) an envelope with a stamp on the first day of its release (iv) a hard-bound book (d) What does the phrase 'temporary refuge from reality' mean in the story? (i) A temporary escape from reality (ii) A shelter home (iii) An escape for a long period (iv) A forever escape from reality
- 10 *Now, I don't know why this should have happened to me. I'm just an ordinary guy named Charley, thirty-one years old, and I was wearing a tan gabardine suit and a straw hat with a fancy band; I passed a dozen men who looked just like me. And I wasn't trying to escape from anything; I just wanted to get home to Louisa, my wife.*
- I turned into Grand Central from Vanderbilt Avenue, and went down the steps to the first level, where you take trains like the Twentieth Century. Then I walked down another flight to the second level, where the suburban trains leave from, ducked into an arched doorway heading for the subway — and got lost.*
- (a) What had happened to 'I'?
- (i) He was becoming forgetful.
- (ii) He wasn't feeling too well.
- (iii) He had forgotten his way.
- (iv) He had lost his office files.
- (b) Charley's age as mentioned in the extract is \_\_\_\_\_.
- (i) early thirties
- (ii) mid-thirty
- (iii) late thirties
- (iv) late twenties
- (c) Where was Charley headed towards?
- (i) Mail
- (ii) Theatre
- (iii) Home
- (iv) Church
- (d) Charley passed by a \_\_\_\_\_ men who looked just like him.
- (i) few
- (ii) many
- (iii) half-a-dozen
- (iv) dozen

## ACCOUNTANCY

### Assignment 1

#### Note

Complete your board project file. Complete the assignment in separate note book.

Q1) What are the essential features of a partnership?

Q2) Write the contents for partnership deed?

Q3) X and Y started business with capital of Rs. 1,00,000 and Rs. 60,000 on 1st April 2018. Y is entitled to a salary of Rs. 800 per month. Interest is allowed on capitals and is charged on drawings at 6% per annum. Profits are to be distributed equally after the above noted adjustments. During the year X withdrew Rs. 16,000 and Y withdrew Rs. 20,000. The profit for the year before allowing for the terms of the partnership deed came to Rs. 60,000. Assuming the capitals to be fixed, prepare the capital and current accounts of X and Y.

Q4) Sita and Gita are partners in a firm. Balances of their capital accounts as on 1st April, 2018 were as follows; Sita Rs. 40,000, Gita Rs. 30,000. Sita introduced Rs. 5,000 as an additional capital on 1st October 2018 and Gita introduced Rs. 7,500 as additional capital on 1st November, 2018. Sita drew capital amounting to Rs. 7,500 on 1st January 2019 and Gita withdrew capital amounting Rs. 2,500 on 1st February, 2019. They have further agreed to allow interest on capital @12% per annum. Books of the accounts of the firm are to be closed on 31st March 2019. Calculate interest to be allowed on partner's capital.

Q5) Calculate the interest on drawings of X @ 10% p.a. for the year ended 31st March, 2018 in each of the following cases:-

- If his drawings during the year were Rs. 12,000
- If he withdrew Rs. 1,000 p.m. at the beginning of every month.
- If he withdrew Rs. 1,000 p.m. at the end of every month.
- If he withdrew Rs. 1,000 p.m. In the middle of each month.
- If he withdrew the following amounts; April 30th Rs. 3,000, June 30th Rs. 2,000, October 1st Rs. 4,000, December 31st Rs. 1,500, February 1st 2,500
- If he withdrew Rs. 3,000 at the beginning of each quarter
- If he withdrew Rs. 3,000 at the end of each quarter.
- If he withdrew Rs. 3,000 during the middle of each quarter.

Q6) What are the advantages of ratio analysis?

Q7) What is:-

- Current ratio
- Liquidity ratio
- Solvency ratio

Q8) calculate current ratio from the following:-

Inventry=5000

Debtors=10000

Prepaid Rent=9000

Cash=3000

Creditors=3000

Unearned Rent=9000

Bank Overdraft=5000

Current Ratio is 2.5; working capital is Rs. 60,000. Calculate the amount of current assets and current liabilities. Ratio of current assets (Rs. 10,00,000) to current liabilities (Rs. 4,00,000) is 25 : 1. The accountant is interested in maintaining a current ratio of 2 : 1 by acquiring some current assets on credit. Suggest him the amount of current assets that should be acquired.

Q9) Inventories are Rs. 80,000; working capital Rs. 2,40,000; current assets; Rs. 40,000; calculate liquid/quick ratio.

Q10) Calculate Debt to Equity ratio from the following information:-

Total assets

Total Debts

Current Liabilities

1,25,000

1,00,000

50,000

Total Debts Rs. 15,00,000; current liabilities Rs. 5,00,000; capital employed Rs. 15,00,000.

Calculate the total assets to debt ratio.

1. The objective of \_\_\_\_\_ is to influence the others in such a way that they may act exactly as desired by their leader. (1)
2. The basic job of \_\_\_\_\_ is to establish coordination among different departments by keeping in view the objectives of the organisation. (1)
3. Policy formulation is the function of—
 

(a) top level managers	(b) middle level managers	
(c) operational managers	(d) all of these.	(1)
4. Which of the following is not the function of management?
 

(a) Staffing	(b) Coordination	
(c) Planning	(d) Directing	(1)
5. Management is considered a perfect science. (T/F) (1)
6. Which degree is essential to become a manager?
 

(a) B.Com	(b) M.Com	
(c) MBA	(d) None of these	(1)

**Q. Nos 7-10 are based on the following CASE.**

The Dabbawallas of Mumbai is the story of a SIX SIGMA business enterprise. The success of the business lies in the complex yet well-coordinated exercise that is carried out on the streets of Mumbai day after day. What is the secret behind the efficiency with which their business is conducted?

The story of the Dabbawallas begins in the kitchens of Mumbai. After they stepped out of their door, someone begins the time-consuming process of preparing the worker a fresh, home-cooked lunch. What happens next demonstrates the coordination of the Dabbawallas system. The first dabbawalla picks up the tiffins from houses and takes them to the nearest railway station. The second dabbawalla sorts out the tiffins at the railway station according to destinations and puts them in the luggage carriage. The third one travels with the dabbas to the railway stations nearest to the destinations. The fourth one picks up tiffins from the railway station and drops them off at the offices. By mid-morning, thousands of dabbawallas are bicycling through the streets of Mumbai, ensuring home-cooked and hot lunch for their customers. The whole tiffins distribution requires negligible technology. The dabbawallas rely on low capital and use cycles, wooden carriages and local trains to achieve their target. There are several groups that work independently and network with each other to achieve their goal. Each area is divided into several small distribution sectors and each sector is handled by a particular person. This person understands the address in that locality very well. Also, this perfection comes with practice. Many new employees work for months under the guidance of their seniors. Punctuality and time management are on top of the agenda for dabbawallas. Whatever be the circumstances, the dabbawallas never get delayed even by a few minutes.

7. Which concept is the basis of the success of 'Dabbawallas'?
 

(a) management	(b) coordination	
(c) efficiency	(d) cooperation	(1)
8. Identify the feature of Management—
 

(a) integrate group efforts	(b) pervasive	
(c) responsibility of all managers	(d) continuous process	(1)
9. Coordination is \_\_\_\_\_.
 

(a) function of management	(b) an objective of management	
(c) the essence of management	(d) a level of management	(1)

1. The objective of \_\_\_\_\_ is to influence the others in such a way that they may act exactly as desired by their leader. (1)
2. The basic job of \_\_\_\_\_ is to establish coordination among different departments by keeping in view the objectives of the organisation. (1)
3. Policy formulation is the function of—
 

(a) top level managers	(b) middle level managers	
(c) operational managers	(d) all of these.	(1)

4. Which of the following is not the function of management?  
 (a) Staffing (b) Coordination (1)  
 (c) Planning (d) Directing (1)
5. Management is considered a perfect science. (T/F)
6. Which degree is essential to become a manager?  
 (a) B.Com (b) M.Com (1)  
 (c) MBA (d) None of these

Q. Nos 7-10 are based on the following CASE.

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 (a) management (b) coordination (1)  
 (c) efficiency (d) cooperation
8. Identify the feature of Management –  
 (a) integrate group efforts (b) pervasive (1)  
 (c) responsibility of all managers (d) continuous process
9. Coordination is \_\_\_\_\_.  
 (a) function of management (b) an objective of management (1)  
 (c) the essence of management (d) a level of management

- (a) Harmony not discord  
 (b) Cooperation not individualism  
 (c) Science not rule of thumb  
 (d) Development of each and every person to his greatest efficiency and prosperity

10. All day long the management works side by side the volunteers helping, encouraging and smoothing the way for them. Which style is identified in above statement?  
 (a) Paternalistic style (1)  
 (b) Technical style (1)  
 (c) Management style  
 (d) Mental revolution
11. Seema, a student of management, likes to relate what she learnt in the class to real life situation. She observed many situations. While watching educational programmes, factories manufacturing components for products like automobiles, computers and mobile phones were shown. Name the concept of Scientific Management that should be adhered to, while manufacturing components for such products. (3)

12. Difference between unity of command and unity of direction.
13. 'Aapka Vidyalaya' believes in holistic development of students and encourages team building through a mix of curricular, co-curricular and sports. A committee of ten prefects was constituted to plan different aspects of the function. They all decide to use recycled paper for decoration. There was a spirit of unity and harmony and all members supported one another. With mutual trust and belongingness the programme was systematically planned and executed. Kartik, one of the prefects, realised that unknowingly the group had applied one of the principles of management while planning and executing the programme. He was so inspired by the success of the function that he asked his father to apply the same principle in his business. His father replied that he was already using this principle.
- (a) Identify the principle of management applied for the success of the programme. (4)
- (b) State any two features of management highlighted in the above Para. (4)
14. 'Taylor's principles of scientific management and Fayol's principle of management are mutually complementary.' Do you agree to this view? Give any four reasons in support for your answer. (4)
15. Arnab, a manager of Micro Ltd., does not distribute the work amongst his subordinates, according to their capabilities. He has given the work on the basis of favouritism. Which principle is overlooked? Give some of its violating effects. (5)
16. Hina has been appointed as the Chief Organiser of a weeklong cultural event. Being a staunch follower of scientific management, she decides to execute her work by putting into practice the various techniques of scientific management. On the basis of several observations, she is able to determine that the standard time taken by the security officer at the gate to check the credentials of each visitor is 30 seconds. So, she decides to employ two persons on this job for every function along with the other necessary support staff. She considers the fact that every day, the functions will take place in three shifts of four hours each, therefore it is important to give breaks to the support staff even in a single shift to take her/his lunch etc. Moreover, on introspection, she determines that the best way to distribute refreshment boxes to the visitors will be to hand them over to them at the exit gate as it would help to save time and eliminate any kind of confusion.
- In the context of the above case, Identify and explain the various techniques of work study which have been put into practice by Hina. (5)
17. In each of the following cases, which principle of Fayol is being violated? (6)
- (a) When the manager contracts with his cousin for supply of materials, knowing that such materials are defective.
- (b) When chalks are kept in library and books in office.
- (c) A worker receiving orders from two bosses.
- (d) When no department has a separate plan of action
- (e) A subordinate habitually contacts higher authorities passing over his superior.

1. The study of movements like lifting, putting objects, sitting and changing position, etc. is known as \_\_\_\_\_ (1)
2. Rajat, the production manager of Auto India Ltd., passes on instruction regarding his departments freely and indiscriminately. Which management principle is violated here? (1)
3. Reena and Meena are working in the same organisation. They have similar experience and are performing the same task. However, they are paid at the different rate. Which principle of management is violated? (1)
4. 'Once selected, employees should be kept at their position for a minimum fixed tenure'. Which principle of management is highlighted in the statement? (1)
5. Principle of management equips the managers to foresee the cause-and-effect relationship of their decision and actions so that the wastages associated with a trial-and-error approach may be overcome. Identify the point of significance of principles of management highlighted here. (1)
6. Match the features of principles of management given under Column A with the correct statement given under Column B. (1)

Column A	Column B
(a) Cause-and-effect relationship.	(i) They do not provide readymade solutions to managerial problems.
(b) General guidelines	(ii) Application of principles of management are not dynamic in nature
	(iii) They can be used in large number of cases

**Q. Nos 7-10 are based on the following CASE.**

Sakaar Foundation is an NGO (Non -Governmental Organisation) working to improve the lives of children with medical needs, the homeless and victims of natural disasters. Apart from donations in cash, they collected dry ration, old clothes, shoes, toys, books, medicines, etc. from donors. At Sakaar Foundation's office in Lucknow the material collected is segregated, classified and put in shelves and boxes that are labelled systematically. There is a specific place for each of these items and volunteers put everything at their respective places.

The volunteers' work is divided into specific jobs like fund raising, field visits, and social media updates and so on. Each volunteer becomes specialized in his respective field, leading to the efficient utilization of human effort.

The management of Sakaar Foundation does not close its ears to any constructive suggestions made by the volunteers. There is an equal division of work and responsibility between volunteers and management. All day long the management works side by side the volunteers helping, encouraging and smoothing the way for them.

7. Each volunteer becomes specialized in his respective field, leading to the efficient utilization of human effort.
  - (a) Initiative
  - (b) Division of work
  - (c) Equity
  - (d) Authority and Responsibility(1)
8. At Sakaar Foundation's office in Lucknow the material collected is segregated, classified and put in shelves and boxes that are labeled systematically. There is a specific place for each of these items and volunteers put everything at their respective places.
  - (a) Esprit de corps
  - (b) Discipline
  - (c) Order
  - (d) Scalar chain(1)
9. The management of Sakaar Foundation does not close its ears to any constructive suggestions made by the volunteers. There is an equal division of work and responsibility between volunteers and management. Identify the scientific management
  10. Coordination is required at all levels of management in all management functions because it is \_\_\_\_\_ nature.
    - (a) continuous
    - (b) flexible
    - (c) intangible
    - (d) pervasive
  11. Is there any difference in planning, organising, staffing, directing and controlling of various organisations such as a school, a club, a restaurant and a steel plant? To which characteristic of management is this case related? (1)
  12. What does the pyramid form of levels of management indicate? (3)
  13. Rishitosh Mukerjee has recently joined AMV Ltd., a company manufacturing refrigerators. He found that his department was under-staffed and other departments were not cooperating with his department for the smooth functioning of the organisation. Therefore, he ensured that his department has the required number of employees and its cooperation with other departments is improved. (3)
    - (a) Identify the level at which Rishitosh Mukerjee was working.
    - (b) Also, state three more functions required to be performed by Rishitosh Mukerjee at this level.
  14. XYZ Power Ltd. set up a factory for manufacturing solar lanterns in a remote village as there was no reliable supply of electricity in rural areas. The revenue earned by the company was sufficient, so the company decided to increase production to generate higher sales. For this they decided to employ people from the nearby villages as very few job opportunities were available in that area. The company also decided to open schools and creches for the children of its employees. (4)

Identify and explain the objectives of management discussed above.
  15. Sanjana is the branch manager of ABC Handicrafts Pvt. Ltd. The company's objective is to promote the sales of Indian handloom and handicraft products. It sells fabrics, furnishings, readymades and household items made out of traditional Indian fabrics. Sanjana decides quantities, variety, colour and texture of all the above items and then allocates resources for their purchase from different suppliers. She appoints a team of designers and crafts people in the company, who developed some prints for bed covers in bright colours on silk. Although they looked very impressive, they were more expensive than they had planned to sell. Average customer could not afford to buy it. Praising their effort, Sanjana suggested that they should keep the silk bed covers for special occasions like Diwali and Christmas and offer the cotton bed covers on a

regular basis to keep costs under control.

Identify the functions of management which Sanjana performs by quoting the lines from the above para. (5)

16. Wardrobe India Limited is a chain of ladies' garment boutiques where most of the work is done manually. Due to the arrival of international brands in India, the company is finding it difficult to compete on two fronts - finishing and embroidery work. The production manger realised that without modern machines it would not be possible for them to survive for long. The company purchases new hi-tech modern machines from Germany. During the production process, the manger observes that the quality of production is not as per standards and very often production is disrupted due to breakdown of machines. The workers get frustrated by continuous rejection of output and start showing resistance towards new technology. To increase the efficiency of the workers, the company decides to train their workers on-the-job under the able guidance of specialists. The workers who are able to pick the skills are promoted and made in charge of the not-so-trained groups. This creates a positive impact and everybody wants to learn. Suggestions from the workers are valued and workers are encouraged to communicate freely. (7)

17. "Management is a science like physics or chemistry". Do you agree to this statement? Give reasons in support of your answer. (6)

Complete your project file.

## ECONOMICS

### Self Assessment Test 1

### National Income and Related Aggregates

Time allowed : 1 hour

Maximum Marks : 25

Q.1 What is Macroeconomics? (1 mark)

Q.2 Give any two examples of flow concept. (1 mark)

Q.3 According to a report forwarded by the Reserve Bank of India, there was a fall in rate of inflation as measured by Consumer Price Index (CPI) on year-on-year basis to 5% from 8% in the precious year. Which of the following statements represents the situation? (1 mark)

- (a) CPI has fallen (b) CPI has risen at a rate lower than the preceding year  
(c) CPI is constant (d) None of the above

Q.4 Depreciation is also known as: (1 mark)

- (a) Capital loss (b) Unforeseen obsolescence  
(c) Capital allowance (d) Both (a) and (b)

Q.5 Calculate "Intermediate Consumption" from the following data: (3 marks)

S. No.	Items	(₹ in crore)
(i)	Gross value of output	
(ii)	Net value added at factor cost (NVAfc)	300
(iii)	Subsidies	100
(iv)	Depreciation	15
		30

Q.6 Which of the following items will be included/not included while estimating Gross Domestic Product? Give valid reasons in support of your answer.

- (a) Wages received by an Indian working in the British Embassy in India.  
(b) Financial aids received from abroad after "Fani cyclone".  
(c) Purchase of second hand machinery from abroad.

Q.7 What is meant by the problem of double counting? Discuss briefly the two approaches to avoid this problem. (3 marks)

Q.8 (a) Distinguish between Real Gross Domestic Product and Nominal Gross Domestic Product. (3 marks)  
(b) "Real Gross Domestic Product is a better indicator of economic growth than Nominal Gross Domestic Product." (2 marks)

Do you agree with the given statement? Support your answer with a suitable numerical example. (4 marks)

Q.9 (a) The value of the nominal GNP of an economy was ₹2500 crore in a particular year. The value of GNP of that country during the same year, evaluated at the prices of base year, was ₹3000 crore. Calculate the value of the GNP deflator of the year in percentage terms. Has the price level risen between the base year and the year under consideration? (3 marks)

(b) Calculate compensation of employees from the following data: (3 marks)

S. No	Particulars	Amount (in ₹ crore)
i.	Profits after tax	20
ii.	Interest	45
iii.	Gross Domestic Product at Market Price	200
iv.	Goods and Services Tax	10
v.	Consumption of Fixed Capital	50
vi.	Rent	25
vii.	Corporate Tax	5

### Self Assessment Test 2

### National Income and Related Aggregates

Time allowed : 1 hour

Maximum Marks : 25

- Q.1 Define an intermediate good. (1 mark)
- Q.2 Wages received by an Indian working in the British Embassy in India will be included in Gross Domestic Product (GDP) of India. True/False? Give reason. (1 mark)
- Q.3 If the national income is ₹2,800 crore and NDP<sub>fc</sub> is ₹3,000 crore, which of the following option will be correct? (1 mark)
- (a) Factor income from abroad ₹500 and factor income to abroad is ₹200  
 (b) Factor income from abroad ₹400 and factor income to abroad is ₹600  
 (c) Factor income from abroad ₹600 and factor income to abroad is ₹400  
 (d) Factor income from abroad ₹700 and factor income to abroad is ₹700
- Q.4 Which of the following would be the normal resident of India? (1 mark)
- (a) An Indian working in an American embassy in India  
 (b) An Indian working in Singapore branch of an Indian bank.  
 (c) A team of German engineers in India on official job for six months.  
 (d) Five Afghan student pursuing law in India for the last four years
- Q.5 "Circular flow of income in a two sector economy is based on the axiom that one's expenditure is other's income." Do you agree with the given statement? Support your answer with valid reasons. (3 marks)
- Q.6 "India's GDP is expected to expand 7.5% in 2019-20: World Bank" — *The Economic Times*. Does the given statement mean that welfare of people of India increase at the same rate? Comment with reason. (3 marks)
- Q.7 Calculate "Depreciation" from the following data: (3 marks)

S. No.	Items	(₹ in crore)
(i)	Gross value of output	300
(ii)	Net value added at factor cost (NVA <sub>fc</sub> )	100
(iii)	Subsidies	15
(iv)	Intermediate Consumption	185

Q.8 Using numerical example, distinguish between Real National Income and Nominal National Income.

OR

Explain any three precautions while calculating GDP by Value Added Method. (6 marks)



Q.9 (a) Distinguish between net factor from abroad and net exports. (2 marks)

(b) Calculate the value of "Mixed Income of Self-Employed" from the following data : (4 marks)

S. No.	Items	(₹ in crore)
(i)	Compensation of Employees	17,300
(ii)	Interest	1,200
(iii)	Consumption of Fixed Capital	1,100
(iv)	Mixed Income of Self-Employed	?
(v)	Subsidies	750
(vi)	Gross Domestic Product at Market price	27,500
(vii)	Indirect Taxes	2,100
(viii)	Profits	1,800
(ix)	Rent	2,000

### Self Assessment Test 3

### National Income and Related Aggregates

Time allowed : 1 hour

Maximum Marks : 25

Q.1 What are 'non-monetary exchanges'?

Q.2 Define 'Value Addition'?

Q.3 When national income (product) of the current year is estimated on the basis of prices prevailing in the current year, it is called (i) \_\_\_\_\_ whereas when it is estimated on the basis of prices prevailing in the base year, it is called (ii) \_\_\_\_\_. (real national income/nominal national income) (Fill in the blanks with the correct options) (1 mark)

Q.4 If Real GDP = ₹240 crore and Price Index = 120, Nominal GDP = \_\_\_\_\_? (1 mark)

Q.5 Calculate "Gross value of output" from the following data: (3 marks)

S. No.	Items	(₹ in crore)
(i)	Net value added at factor cost (NVAfc)	100
(ii)	Depreciation	30
(iii)	Subsidies	15
(iv)	Intermediate Consumption	185

Q.6 If in a locality, a new park is developed by the municipal corporation, it will have externalities, both positive and negative. State an example each of both types of externalities with reason. (3 marks)

Q.7 Define the problem of double counting in the computation of national income. State any two approaches to correct the problem of double counting. (3 marks)

Q.8 Explain any three precautions while calculating national income by Income Distributed Method. (6 marks)

OR

Will the following be included in domestic factor income of India? Give reasons in support of your answer. (6 marks)

- (i) Compensation of employees paid by a foreign company located in India.
- (ii) Compensation of employees paid by American embassy in India to resident Indians.
- (iii) Expenditure on engine oil by car service station.

Q.9 Given the following data, find the values of 'Operating Surplus' and 'Gross Domestic Capital Formation': (6 marks)

S. No.	Items	(₹ in crore)
i	Government Final Consumption Expenditure	2,000
ii	Mixed Income of Self-Employed	1,500
iii	National Income	12,000
iv	Net Factor Income from Abroad	200
v	Operating Surplus	?
vi	Profits	500
vii	Private Final Consumption Expenditure	6,000
viii	Net Indirect Taxes	700
xi	Net Exports	1,800
x	Consumption of Fixed Capital	600
xi	Gross Domestic Capital Formation	?
xii	Wages and Salaries	6,000

### Self Assessment Test 1.1

## Chapter 1: Indian Economy on the Eve of Independence

Maximum Marks : 25

Time allowed : 1 hour

- Q.1 Arrange the following events of India before the independence in chronological order: (1 mark)
- The opening of the Suez Canal
  - Introduction of the railways
  - Second stage of demographic transition
  - Incorporation of the Tata Iron and Steel Company
- Q.2 India's demographic condition on the eve of independence was characterised by: (Choose the correct alternative) (1 mark)
- High level of literacy, high mortality rates, high life expectancy and high level of poverty.
  - Low level of literacy, low mortality rates, low life expectancy and Low level of poverty.
  - Low level of literacy, low mortality rates, high life expectancy and high level of poverty.
  - Low level of literacy, high mortality rates, low life expectancy and high level of poverty.
- Q.3 \_\_\_\_\_ is considered as one of the most important contributions of the British. (Choose the correct alternative) (1 mark)
- Construction of all-weather roads
  - Introduction of the railways in 1850
  - Introduction of electric telegraph in India
  - The postal services
- Q.4 Under the British colonial rule, the agricultural production decreased. True/False? Give reason. (1 mark)
- Q.5 One of the significant drawbacks of the industrial policy pursued by the British colonial administration was the very limited area of operation of the public sector. This sector remained confined only to the \_\_\_\_\_. (1 mark)
- Q.6 What was the focus of the economic policies pursued by the colonial government in India? What were the impacts of these policies? (3 marks)
- Q.7 What was the two-fold motive behind the systematic deindustrialisation effected by the British in pre-independent India? (3 marks)

- Q.8 Highlight the salient features of India's pre-independence occupational structure. (4 marks)
- Q.9 "Under the colonial regime, basic infrastructure such as railways, ports, water transport, posts and telegraph develop. However, the real motive behind infrastructure development was not to provide basic amenities to the people but to subserve various colonial interests."  
What objectives did the British intend to achieve through their policies of infrastructure development in India? (4 marks)
- Q.10 "The social and economic challenges before India at the time of independence were enormous."  
Do you agree with the statement? Give reasons. (6 marks)

## Self Assessment Test 1.2

### Chapter 1: Indian Economy on the Eve of Independence

Time allowed : 1 hour

Maximum Marks : 25

- Q.1 Write the correct sequence of alternatives given in Column II by matching them with respective terms in Column I: (1 mark)

Column I	Column II
A. India's first official census	(i) less than 2%
B. Introduction of the railways in India	(ii) about 7%
C. India's annual growth rate of aggregate real output during colonial period	(iii) 1850
D. Female literacy level at the time of independence	(iv) 1881

- Q.2 The opening of the Suez Canal in 1869: (Choose the correct alternative) (1 mark)
- Raised the cost of transportation between Britain and India.
  - Intensified British control over India's foreign trade.
  - Reduced the cost of transportation and made access to the Indian market easier.
  - Both (b) and (c)
- Q.3 The country's growth rate of aggregate real output during the first half of the twentieth century was only (i) \_\_\_\_\_ and per capita real output was (ii) \_\_\_\_\_. (Fill up the blanks with correct answers) (1 mark)
- Q.4 Commercialisation of agriculture helped farmers in improving their economic condition. True/False? Give reason. (1 mark)
- Q.5 Name some notable economists who estimated India's per capita income during the colonial period. (1 mark)
- Q.6 How did the restrictive policies of commodity production, trade and tariff pursued by the British colonial government affect the structure, composition and volume of foreign trade? (3 marks)
- Q.7 Although there was some evidence of a relatively higher yield of cash crops in certain areas of the country due to commercialisation of agriculture, but this could hardly help farmers in improving their economic condition. Explain why. (3 marks)
- Q.8 "The introduction of the railways in India was considered as one of the most important contributions of the British. However, the social benefits, which the Indian people gained owing to the introduction of the railways, were outweighed by the country's huge economic loss."  
Do you agree with the above statement? Give valid reasons. (4 marks)
- Q.9 Give a quantitative appraisal of India's demographic profile during the colonial period. (4 marks)
- Q.10 Underscore some of India's most crucial economic challenges at the time of independence. (6 marks)

## Chapter 1: Indian Economy on the Eve of Independence

Time allowed : 1 hour

Maximum Marks : 25

Q.1 Write the correct sequence of alternatives given in Column II by matching them with respective terms in Column I: (1 mark)

Column I	Column II
A. Focus of the economic policies pursued by the colonial government in India	(i) To use a large export surplus to make payments for the expenses incurred by an office set-up in British, expenses on war, and import of invisible items.
B. Motive of the British behind the systematic deindustrialisation in India	(ii) To reduce India to the status of a mere exporter of important raw materials for the upcoming modern industries in Britain.
C. Motive of the British behind infrastructural development in India	(iii) Protection and promotion of the economic interests of their home country then with the development of the Indian economy.
D. Motive of the British behind monopoly control over India's exports and imports	(iv) To subserve various colonial interests, e.g. mobilising the army within India and drawing out raw materials from the countryside to the nearest railway station or the port to send these to England.

- Q.2 The stagnation in the agricultural sector during the colonial rule was caused mainly because of \_\_\_\_\_ that were introduced by the colonial government. (1 mark)
- Q.3 During the second half of the 19th century, the cotton textile mills, mainly dominated by Indians, were located in (i) \_\_\_\_\_, while jute mills dominated by the foreigners were mainly concentrated in (ii) \_\_\_\_\_. (1 mark)
- Q.4 Which is regarded as the defining year to mark the demographic transition from its first to the second decisive stage? (1 mark)
- Q.5 During the British colonial rule, the various social development indicators were not quite encouraging. The overall literacy level was (i) \_\_\_\_\_. Out of this, the female literacy level was at a negligible low of about (ii) \_\_\_\_\_. (1 mark)
- Q.6 How did the Zamindari system of revenue settlement introduced by the colonial government cause immense misery and social tension among the cultivators? Why did the Zamindars adopt such an attitude? (3 marks)
- Q.7 What was the two-fold motive behind the systematic deindustrialisation effected by the British in pre-independent India? (3 marks)
- Q.8 How did the restrictive policies of commodity production, trade and tariff pursued by the colonial government adversely affect the structure, composition and volume of India's foreign trade? Explain. (4 marks)
- Q.9 Highlight the salient features of India's pre-independence occupational structure. (4 marks)
- Q.10 "During the British colonial rule, despite being the occupation of about 85% of India's population, the agriculture sector continued to experience stagnation and, not infrequently, unusual deterioration. Agricultural productivity became low."  
Do you agree with the above statement? Give valid reasons in support of your answer. (6 marks)



## Chapter 2: Indian Economy (1950-1990)

Time allowed : 1 hour

Maximum Marks : 25

- Q.1 After the independence, the state had to play an extensive role in promoting the industrial sector. The decision to develop the Indian economy on socialist lines led to the policy of the state controlling the commanding heights of the economy, as the \_\_\_\_\_ put it. (Choose the correct alternative) (1 mark)
- (a) First Five Year plan  
(b) Second Five Year plan  
(c) Third Five Year plan  
(d) Seventh Five Year plan
- Q.2 Write the correct sequence of alternatives given in Column II by matching them with respective terms in Column I: (1 mark)

Column I	Column II
A. Karve Committee, 1955	(i) To encourage farmers for adopting new HYV technology.
B. Industrial Policy Resolution, 1956	(ii) Using small-scale industries to promote rural development.
C. Import Substitution Policy	(iii) To protect the domestic firm from foreign competition.
D. Subsidies	(iv) To regulate private sector through a system of licensing to promote regional equality.

- Q.3 Match the following and choose the correct alternative: (1 mark)

1. Prime Minister	(A) The money value of all the final goods and services produced within the economy in one year
2. Gross Domestic Product	(B) Adoption of new technology
3. Modernisation	(C) Chairperson of the planning commission
4. Self-sufficiency	(D) Avoiding imports of those goods which could be produced in India itself.

- (a) 1-D, 2-A, 3-B, 4-C  
(b) 1-C, 2-A, 3-B, 4-D  
(c) 1-D, 2-A, 3-C, 4-B  
(d) 1-C, 2-B, 3-A, 4-D

- Q.4 Just a year after independence, steps were taken to abolish intermediaries and to make the tillers the owners of land. The idea behind this move was: (Choose the correct alternative) (1 mark)
- (a) to reduce the concentration of land ownership in a few hands.  
(b) that ownership of land would give incentives to the tillers to invest in making improvements.  
(c) fixing the maximum size of land which could be owned by an individual.  
(d) to reduce the vast inequality in land holding.

- Q.5 Eliminating subsidies will violate the goal of equity. True/False? Give reason. (1 mark)

- Q.6 Why was public sector given a leading role in industrial development during the planning period? (3 marks)

- Q.7 Though it is argued that there is no case for continuing with fertiliser subsidies as it does not benefit the target group and it is a huge burden on the government's finances, yet some experts believe that the government should continue with agricultural subsidies. (3 marks)

What arguments do they give in favour of giving subsidies?

- Q.8 Explain how import substitution can protect domestic industry. Why did the policy makers adopt such policy of protection? (4 marks)

- Q.9 What is the role of small scale industries in industrial development of India? Why and how has the government shielded small scale industries from the large firms? (4 marks)

- Q.10 How far the land reforms in the agriculture sector in India were successful in their implementation? Explain? (6 marks)

## ASSIGNMENTS

### (i). Order, Addition, Multiplication and transpose of matrices:

#### LEVEL I

1. If a matrix has 5 elements, what are the possible orders it can have? [CBSE 2011]
2. Construct a  $3 \times 2$  matrix whose elements are given by  $a_{ij} = \frac{1}{2}i - 3j$
3. If  $A = \begin{bmatrix} 1 & 2 & 3 \\ 3 & 1 & 3 \end{bmatrix}$ ,  $B = \begin{bmatrix} 2 & 3 & 1 \\ 1 & 0 & 2 \end{bmatrix}$ , then find  $A - 2B$ .
4. If  $A = \begin{bmatrix} 2 & 1 & 4 \\ 4 & 1 & 5 \end{bmatrix}$  and  $B = \begin{bmatrix} 3 & -1 \\ 2 & 2 \\ 1 & 3 \end{bmatrix}$ , write the order of  $AB$  and  $BA$ .

#### LEVEL II

1. For the following matrices  $A$  and  $B$ , verify  $(AB)^T = B^T A^T$ ,  
 where  $A = \begin{bmatrix} 1 \\ -4 \\ 3 \end{bmatrix}$ ,  $B = \begin{bmatrix} -1 & 2 & 1 \end{bmatrix}$
2. Give example of matrices  $A$  &  $B$  such that  $AB = O$ , but  $BA \neq O$ , where  $O$  is a zero matrix and  $A, B$  are both non zero matrices.
3. If  $B$  is skew symmetric matrix, write whether the matrix  $(ABA^T)$  is Symmetric or skew symmetric.
4. If  $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$  and  $I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ , find  $a$  and  $b$  so that  $A^2 + aI = bA$

#### LEVEL III

1. If  $A = \begin{bmatrix} 2 & 0 & 1 \\ 2 & 1 & 3 \\ 1 & -1 & 0 \end{bmatrix}$ , then find the value of  $A^2 - 3A + 2I$
2. Express the matrix  $A$  as the sum of a symmetric and a skew symmetric matrix, where:  
 $A = \begin{bmatrix} 3 & -2 & -4 \\ 3 & -2 & -5 \\ -1 & 1 & 2 \end{bmatrix}$
3. If  $A = \begin{bmatrix} a & b \\ 0 & 1 \end{bmatrix}$ , prove that  $A^n = \begin{bmatrix} a^n & \frac{b(a^n - 1)}{a - 1} \\ 0 & 1 \end{bmatrix}$ ,  $n \in \mathbb{N}$

### (ii) Cofactors & Adjoint of a matrix

#### LEVEL I

1. Find the co-factor of  $a_{12}$  in  $A = \begin{bmatrix} 2 & -3 & 5 \\ 6 & 0 & 4 \\ 1 & 5 & -7 \end{bmatrix}$
2. Find the adjoint of the matrix  $A = \begin{bmatrix} 2 & -1 \\ 4 & 3 \end{bmatrix}$

#### LEVEL II

Verify  $A(\text{adj}A) = (\text{adj}A)A = |A|I$  if

1.  $A = \begin{bmatrix} 2 & 3 \\ -4 & -6 \end{bmatrix}$
2.  $A = \begin{bmatrix} 1 & 2 & 3 \\ 2 & 3 & 2 \\ 3 & 3 & 4 \end{bmatrix}$

### (iii) Inverse of a Matrix & Applications

#### LEVEL I

1. If  $A = \begin{bmatrix} 2 & 3 \\ 5 & -2 \end{bmatrix}$ , write  $A^{-1}$  in terms of  $A$  CBSE 2011
2. If  $A$  is square matrix satisfying  $A^2 = I$ , then what is the inverse of  $A$ ?
3. For what value of  $k$ , the matrix  $A = \begin{bmatrix} 2 & -k & 3 \\ -5 & & 1 \end{bmatrix}$  is not invertible?

#### LEVEL II

1. If  $A = \begin{bmatrix} 3 & -5 \\ -4 & 2 \end{bmatrix}$ , show that  $A^2 - 5A - 14I = O$ . Hence find  $A^{-1}$
2. If  $A, B, C$  are three non zero square matrices of same order, find the condition on  $A$  such that  $AB = AC \Rightarrow B = C$ .

3. Find the number of all possible matrices  $A$  of order  $3 \times 3$  with each entry 0 or 1 and for which  $A \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 1 \\ 0 \\ 0 \end{bmatrix}$  has exactly two distinct solutions.

### LEVEL III

1. If  $A = \begin{bmatrix} 2 & 3 & 1 \\ -3 & 2 & 1 \\ 5 & -4 & -2 \end{bmatrix}$ , find  $A^{-1}$  and hence solve the following system of equations:  
 $2x + 3y + 5z = 11$ ,  $3x + 2y - 4z = -5$ ,  $x + y + 2z = -3$

2. Using matrices, solve the following system of equations:

a.  $x + 2y - 3z = -4$   
 $2x + 3y + 2z = 2$   
 $3x - 3y - 4z = 11$

[CBSE 2011]

b.  $4x + 3y + 2z = 60$   
 $x + 2y + 3z = 45$   
 $6x + 2y + 3z = 70$

[CBSE 2011]

3. Find the product  $AB$ , where  $A = \begin{bmatrix} 1 & -1 & 0 \\ 2 & 3 & 4 \\ 0 & 1 & 2 \end{bmatrix}$ ,  $B = \begin{bmatrix} 2 & 2 & -4 \\ -4 & 2 & -4 \\ 2 & -1 & 5 \end{bmatrix}$  and use it to solve the equations  $x - y = 3$ ,  $2x + 3y + 4z = 17$ ,  $y + 2z = 7$

4. Using matrices, solve the following system of equations:

$$\frac{1}{x} - \frac{1}{y} + \frac{1}{z} = 4$$

$$\frac{2}{x} + \frac{1}{y} - \frac{3}{z} = 0$$

$$\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 2$$

5. Using elementary transformations, find the inverse of the matrix

$$\begin{bmatrix} 1 & 2 & -2 \\ -1 & 3 & 0 \\ 0 & -2 & 1 \end{bmatrix}$$

*(iv) To Find The Difference Between  $|A|$ ,  $|adjA|$ ,  $|kA|$*

### LEVEL I

- Evaluate  $\begin{vmatrix} \cos 15^\circ & \sin 15^\circ \\ \sin 75^\circ & \cos 75^\circ \end{vmatrix}$  [CBSE 2011]
- What is the value of  $|3I|$ , where  $I$  is identity matrix of order 3?
- If  $A$  is non singular matrix of order 3 and  $|A| = 3$ , then find  $|2A|$
- For what value of  $a$ ,  $\begin{bmatrix} 2a & -1 \\ -8 & 3 \end{bmatrix}$  is a singular matrix?

### LEVEL II

- If  $A$  is a square matrix of order 3 such that  $|adjA| = 64$ , find  $|A|$
- If  $A$  is a non singular matrix of order 3 and  $|A| = 7$ , then find  $|adjA|$



4. Express  $A = \begin{bmatrix} 3 & 2 & 3 \\ 4 & 5 & 3 \\ 2 & 4 & 5 \end{bmatrix}$  as the sum of a symmetric and a skew-symmetric matrix.

5. Let  $A = \begin{bmatrix} -1 & -4 \\ 1 & 3 \end{bmatrix}$ , prove by mathematical induction that :  $A^n = \begin{bmatrix} 1-2n & -4n \\ n & 1+2n \end{bmatrix}$ .

6. If  $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$ , find  $x$  and  $y$  such that  $A^2 + xI = yA$ . Hence find  $A^{-1}$ .

7. Let  $A = \begin{bmatrix} 0 & -\tan \frac{\alpha}{2} \\ \tan \frac{\alpha}{2} & 0 \end{bmatrix}$  and  $I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ . Prove that  $I + A = (I - A) \begin{bmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{bmatrix}$ .

8. Solve the following system of equations :  $x + 2y + z = 7$ ,  $x + 3z = 11$ ,  $2x - 3y = 1$ .

9. Find the product  $AB$ , where  $A = \begin{bmatrix} -4 & 4 & 4 \\ -7 & 1 & 3 \\ 5 & -3 & -1 \end{bmatrix}$  and  $B = \begin{bmatrix} 1 & -1 & 1 \\ 1 & -2 & -2 \\ 2 & 1 & 3 \end{bmatrix}$  and use it to solve

the equations  $x - y + z = 4$ ,  $x - 2y - 2z = 9$ ,  $2x + y + 3z = 1$ .

10. Find the matrix  $P$  satisfying the matrix equation  $\begin{bmatrix} 2 & 1 \\ 3 & 2 \end{bmatrix} P \begin{bmatrix} -3 & 2 \\ 5 & -3 \end{bmatrix} = \begin{bmatrix} 1 & 2 \\ 2 & -1 \end{bmatrix}$ .

### Lab Manual work

Complete 5 Lab Manual practical's discussed in Class.

### PHYSICAL EDUCATION

Make a project report on yoga

### Information Technology

Revise Employability Skills – IV

### Music Vocal

प्रश्न 1 निम्नलिखित पर संक्षिप्त टिप्पणी कीजिए।

अलंकार कन खटका मीड आलाप तान।

प्रश्न 2 राग भैरव का संपूर्ण परिचय लिखिए।

प्रश्न 3 रागो के समय सिद्धांत के विषय में विस्तार से लिखिए।

प्रश्न 4 झप ताल रूपक ताल धमार ताल का परिचय 1 गुण 2 गुण 3 गुण व चौगुन सहित लिखिए।

प्रश्न 5 अपनी प्रैक्टिकल फाइल पूरी करें।



# SUMMER VACATION

## Holiday Homework

### Grade – XII (Humanities)





Summers again and its time for a break. Let us break the monotony of doing the home assignments by completing them under the guidance of their teachers and parents. **The summer vacation begins from 27<sup>th</sup> May,2022 and school will reopen on 4<sup>th</sup> July,2022. Parents can download holidays homework from school's website i.e [www.lotusvalley.edu.in](http://www.lotusvalley.edu.in) or Ecare- App.**

Here are few suggestions for parents:-

- Make sure that you are spending quality time with your wards. It is very important to keep their anxiety at minimum.
- Giving them small responsibilities in household chores will aid them to be independent.
- Teach them the importance of moral values in their life.

Also students can :-

- Read book, May it be fairy books, encyclopedia or comic books. Explore the imaginative world and go on a fantasy tour.
- Run, exercise, sweat! Channelize your energy and enjoy playing indoor games.
- Enhance communication skills by conversing with your friends and family in English.
- Explore the culture and heritage of the world by visiting heritage sites virtually. Download the app "Google Earth" and enjoy virtual tours around the Earth.

**Wish you all a fun filled, safe and healthy holidays ahead!**



### Instructions for completing assignments-

- All the assignments are to be done in subject notebook with proper date and headings.
- The written part should be neatly presented in student's handwriting. Take the help of your parents if necessarily required.
- Remember a well presented 'Holiday Homework' fetches your marks and appreciation of your teachers and classmates. It carries 10 marks.
- Revise all the work done in class till date.

### ENGLISH

#### Speaking activity

- a) Drug Addiction and Youth
- b) Consumer Rights and Consumer Awareness
- c) Indian Democracy and Media Responsibility
- d) Donate for a noble cause
- e) All Entrance Tests should be abolished
- f) Rising Crime Rates- Value Based Education is the only answer

### **An Elementary School Classroom in a Slum**

Far from gusty waves these children's faces.

Like rootless weeds, the hair torn round their pallor:

- 1 The tall girl with her weighed-down head. The paperseeming boy, with rat eyes.

Answer the following.

- (a) The children's faces wore signs of their rootless condition. (True/False)
- (b) The tall girl bows her head with the burden of studies. (True/False)
- (c) From which type of landscape is the location described in these lines, far from?
- (d) \_\_\_\_\_ in the boy's face have been compared to a rat.

- 2 ...Open-handed map

Awarding the world its world. And yet, for these  
Children, these windows, not this map, their world,  
Where all their future's painted with a fog,  
A narrow street sealed in with a lead sky  
Far far from rivers, capes, and stars of words.

Answer the following.

- (a) For the children in the classroom the only world that they know of is outside their classroom windows. (True/False)
- (b) The map in the classroom is pinned to the window of the classroom. (True/False)
- (c) The school is located in a \_\_\_\_\_ street.
- (d) The future of the children is dull and has been compared to a \_\_\_\_\_.

- 3 Surely, Shakespeare is wicked, the map a bad example,  
With ships and sun and love tempting them to steal—  
For lives that slyly turn in their cramped holes  
From fog to endless night? On their slag heap, these children  
Wear skins peeped through by bones and spectacles of steel  
With mended glass, like bottle bits on stones.

Answer the following.

- (a) The map is a bad example for the children as it tempts hopes in the children. (True/False)
- (b) After seeing ships and sunshine, the children's minds are slyly turning in their cramped \_\_\_\_\_.
- (c) The children's living quarters are described as \_\_\_\_\_ heaps.
- (d) What metal is used to make the children's spectacle frames?

- 4 What changes does the poet hope for in the lives of slum children?
- 5 What message does Stephen Spender convey through his poem 'An Elementary School Classroom in a Slum'?
- 6 What is the theme of the poem?

7 How does the poet describe the classroom walls? What do they symbolize?

Or

What do you think is the colour of 'sour cream'? Why do you think the poet has used this expression to describe the classroom walls?

8 How is the world depicted on the classroom walls different from the world of slum children?

Or

The walls of the classroom are decorated with the pictures of 'Shakespeare', 'buildings with domes', 'World maps' and beautiful valleys. How do these contrast with the world of these children?

9 What does the poet want for children of the slums? How can their lives be made to change?

10 What does the world of the slum children consist of?

### **Journey to the End of the Earth**

What emotions did the author experience when she reached Antarctica at last?

1

2 What is the visual experience in Antarctica?

3 How has Antarctica sustained itself and managed to remain pristine?

4 What are the reasons for the success of the Students on Ice programme?

5 What is that beauty of balance that a trip to Antarctica unfolded to the author?

6 Why does the author conclude the chapter by saying that a lot can happen in a million years, but what a difference a day makes?

7 Why is it necessary to remain fully equipped while walking on ice?

8 What is the significance of the title 'Journey to the End of the Earth'?

9 What makes Antarctica an ideal subject of study?

10 The author states that her Antarctic experience was full of epiphanies, but the best occurred just short of the Antarctic Circle of 65–55 degrees south? Explain.

### **The Third Level**

What does the narrator think of Grand Central? What does it symbolize?

1

2 What strange things did the narrator see when he reached the third level of Grand Central?

3 What did the narrator do to make sure that he was actually at the third level of Grand Central?

4 Why did the narrator turn towards the ticket windows? Why did he run back from there?

- 5 What did the narrator do the next day?
- 6 Why could Charley not be convinced by his distractions that the third level was only a wish fulfilment?
- 7 What happened to the narrator's psychiatrist friend Sam Weiner? What do you deduce from it?
- 8 What had Sam Weiner written on the paper in the first-day cover?
- 9 *But that's the reason, he said, and my friends all agreed. Everything points to it, they claimed. My stamp collecting, for example; that's a 'temporary refuge from reality.' Well, maybe, but my grandfather didn't need any refuge from reality; things were pretty nice and peaceful in his day, from all I hear, and he started my collection. It's a nice collection too, blocks of four of practically every U.S. issue, first-day covers, and so on. President Roosevelt collected stamps too, you know.* (a) Which place is referred to as the Third Level in the story of the similar name? (i) The Grand Central Station of London (ii) The Grand Airport of London (iii) The Grand Central Airport of New York (iv) The Grand Central Station of New York (b) Stamp collecting hobby is known by another name. What is it? (i) Philately (ii) Calligraphy (iii) Landscaping (iv) Sculpting (c) What do the first-day covers refer to? (i) cover of the book (ii) a gift pack (iii) an envelope with a stamp on the first day of its release (iv) a hard-bound book (d) What does the phrase 'temporary refuge from reality' mean in the story? (i) A temporary escape from reality (ii) A shelter home (iii) An escape for a long period (iv) A forever escape from reality
- 10 *Now, I don't know why this should have happened to me. I'm just an ordinary guy named Charley, thirty-one years old, and I was wearing a tan gabardine suit and a straw hat with a fancy band; I passed a dozen men who looked just like me. And I wasn't trying to escape from anything; I just wanted to get home to Louise, my wife.*

*I turned into Grand Central from Vanderbilt Avenue, and went down the steps to the first level, where you take trains like the Twentieth Century. Then I walked down another flight to the second level, where the suburban trains leave from, ducked into an arched doorway heading for the subway — and got lost.*

(a) What had happened to 'I'?

- (i) He was becoming forgetful.
- (ii) He wasn't feeling too well.
- (iii) He had forgotten his way.
- (iv) He had lost his office files.

(b) Charley's age as mentioned in the extract is \_\_\_\_\_.

- (i) early thirties
- (ii) mid-thirty
- (iii) late thirties
- (iv) late twenties

(c) Where was Charley headed towards?

- (i) Mall
- (ii) Theatre
- (iii) Home
- (iv) Church

(d) Charley passed by a \_\_\_\_\_ men who looked just like him.

- (i) few
- (ii) many
- (iii) half-a-dozen
- (iv) dozen

## HISTORY

Make a Project report as per Topic Allotted

- a)** Bricks, Beads and Bones—Roll No 1 to 5
- b)** Kings, Farmers and Towns—Roll No 6 to 10
- c)** Kinship, Caste and Class—Roll No 11 to 15
- d)** Thinkers, Beliefs and Buildings—Roll No 16 to 19

## History Assignment

1. List the material used to make beads in the Harappan Civilization. Describe the process by which one kind of bead was made.
2. Describe how artifacts help in identifying social differences during the Harappan period.
3. Discuss how archaeologists reconstruct the past.
4. Discuss the functions that may have been performed by rulers in Harappan society.
5. How were the Harappan cities planned?
6. Describe the administrative system of Vijayanagara Kingdom.
7. "Abdul Razzak an ambassador of Persia was impressed by the fortification of Vijayanagar Empire" Justify the statement.
8. Explain the reasons for the decline of Vijayanagara Empire.
9. How were the water requirements of Vijayanagara met?
10. What do you think was the significance of the rituals associated with the Mahanavamidibba?
11. Why was the south-Western part of Vijayanagara settlement designated as royal centre? Explain.
12. Who was Colin Mackenzie?
13. Explain the social and economic conditions of Vijayanagara.
14. Examine the role of Amaranayakas in Vijayanagara Empire?
15. Describe briefly the message and teachings of Baba Guru Nanak Ji.
16. Discuss the ways in which the Alvars, Nayanars and Virashaivas expressed critiques of the caste system.
17. Who were lingayats?
18. What are the main objectives of bhakti movement?
19. Discuss the main features of mosques.
20. Write a note on Mirabai?
21. Explain the Popular Practices of Islamic Traditions.
22. Explain the Caste System as explained by Al-Biruni?
23. Write a note on the Kitab-Ul-Hind?
24. Name the work written by Bernier. What did he write about sati system?
25. Explain giving Examples how the account of foreign travellers help in reconstructing the history of India from the 10<sup>th</sup> to 17<sup>th</sup> century?

### HINDI

#### क) वाचन गतिविधि:- (ASL) 2 से 3 मिनट

1. मीडिया का सामाजिक उत्तरदायित्व (अनुक्रमांक 1 से 5 तक)
2. पशु ना बोलने से और मनुष्य बोलने से कष्ट उठाता है। (अनुक्रमांक 6 से 10 तक)
3. सांस्कृतिक कार्यक्रम कितने सांस्कृतिक (अनुक्रमांक 11 से 15 तक)
4. मधुर वचन हैं औषधि, कटुक वचन हैं तीर (अनुक्रमांक 16 से 20 तक)

\*नोट - उपरोक्त विषयों में से अपने अनुक्रमांक के अनुसार विषय लेकर स्पष्ट भाव - भंगिमाओं सहित वाचन गतिविधि के लिए तैयार कीजिए

\*परियोजना कार्य :- अपनी पाठ्यपुस्तक से संबंधित किसी एक कवि या लेखक का जीवन परिचय, साहित्यिक परिचय तथा रचनाओं पर विस्तार पूर्वक 15 से 16 पृष्ठ की परियोजना तैयार करें। (Project File)

\* कक्षा में करवाये गए संपूर्ण विषयवस्तु की दोहराई।

#### Assignment-I

क) निम्नलिखित प्रश्नों के उत्तर 30 से 35 शब्दों में लिखिए:

- 1) कवि ने "कविता के बहाने" कविता को किसके सम्मान और क्यों माना है?
- 2) बच्चा सब घर एक कैसे कर देता है?
- 3) अपाहिज कैमरे के सामने क्यों रो पड़ता है?

4) अपाहिज से कौन सा प्रश्न बार-बार पूछा जाता है और कौन सा नहीं?

(5) लेखिका ने भक्तिन के सेवा धर्म की तुलना किससे की है क्यों?

(6) भक्तिन का स्वभाव कैसा बन गया था?

7) राजा साहब ने लुट्टन को क्यों सहारा दिया था? उसकी दुर्गति का क्या कारण था?

8) "काले मेघा पानी दे" संस्मरण के आधार पर लेखक की देशभक्ति की भावना का चित्रण कीजिए।

(ख) निम्नलिखित प्रश्नों का उत्तर 50 से 60 शब्दों में दीजिए:

1) रात्रि की विभीषिका को कौन भंग करती थी और कैसे?

2) "दिन जल्दी जल्दी ढलता है" कविता का मूल भाव व प्रतिपाद्य स्पष्ट कीजिए।

3) "बात सीधी थी पर" कविता में निहित संदेश स्पष्ट कीजिए।

4) "कविता के बहाने" कविता का केंद्रीय भाव स्पष्ट कीजिए।

5) जब शारीरिक चुनौती का सामना कर रहे व्यक्ति से उसके दुख के विषय में पूछा जाता है तो वह अपना दुख क्यों नहीं

6) मेंढक मंडली पर पानी डालने को लेकर जीजी और लेखक के विचारों में क्या भिन्नता थी?

7) भयंकर बीमारी से ग्रस्त गांव का दृश्य हृदय विदारक था कैसे? (पहलवान की ढोलक)

8) पर्दे पर किस की कीमत है? और क्यों? (कैमरे में बंद अपाहिज)

9) कैमरे में बंद अपाहिज कविता में शारीरिक चुनौती खेलते अन्यथा सक्षम लोगों के प्रति काम के रवैये पर टिप्पणी कीजिए।

10) 'बात को कील की तरह ठोकना' क्या है ऐसा क्यों किया जाता है? (बात सीधी थी)

#### Assignment- II

क) निम्नलिखित प्रश्नों के उत्तर एक दो पंक्ति में दीजिए:

1) गांव में पानी मांगने वाले बच्चों के कितने नाम थे?

2) मेंढक मंडली में कैसे कैसे बच्चे होते थे?

3) जेठ तथा आषाढ़ के मासमे वायुमंडल की दशा क्या होती थी?

(4) "कौन कहता है इन्हें इंद्र की सेना?" यह कहकर लेखक किन पर व्यंग्य करता है?

(5) जीजी ने लेखक को त्याग का क्या अर्थ समझाया?

6) "देख तू तो अभी से पढ़ लिख गया है मैंने तो गांव के मंदरसे का मुंह भी नहीं देखा।" यह बात कौन कहता है और किससे?

ख) निम्नलिखित प्रश्नों के उत्तर 30 से 35 शब्दों में दीजिए:

1) जीजी लेखक को बुआई संबंधी क्या तर्क देती है?



(2) पाठ में बताए गए अंधविश्वासों से क्या क्या हानियाँ हो सकती हैं?

3) सरकार द्वारा करोड़ों अरबों की योजनाएँ बनाई जाती हैं लेकिन उनका लाभार्थ जनसामान्य तक क्यों नहीं पहुँच पाता? (काले मेघा पानी दे)

4) यदि आप लेखक की जगह होते तो इंदरसेना पर पानी फेंकते या नहीं? तर्क सहित अपना उत्तर दीजिए।

5) 'काले मेघा पानी दे' में लेखक के वैज्ञानिक तर्क और उसकी जीजी के पारंपरिक तर्क की समीक्षा कीजिए।

ग) निम्नलिखित प्रश्नों के उत्तर 40 से 50 शब्दों में दीजिए:

1) काले मेघा पानी दे पाठ का प्रतिपाद्य बताते हुए समझाइए कि आप किसके विचारों से सहमत हैं? लेखक या जीजी।

2) 'काले मेघा पानी दे' पाठ में लेखक ने समाज की एक ऐसी समस्या का वर्णन किया है जो आज भारत देश की भयंकर समस्या है। वह कौन सी समस्या है? उसके विषय में आप कितने चिंतित हैं? बताइए।

3) लेखक ने जिस त्याग भावना को चित्रित किया है उसे स्पष्ट कीजिए। (काले मेघा पानी दे)

4) इस पाठ में चित्रित लोक आस्था पर टिप्पणी कीजिए।

5) इंदरसेना पर पानी फेंके जाने पर लेखक की मान्यता को जीजी कैसे छिन्न-भिन्न कर देती है? स्पष्ट कीजिए।

## ECONOMICS

### Self Assessment Test 1

### National Income and Related Aggregates

Time allowed : 1 hour

Maximum Marks : 25

Q.1 What is Macroeconomics? (1 mark)

Q.2 Give any two examples of flow concept. (1 mark)

Q.3 According to a report forwarded by the Reserve Bank of India, there was a fall in rate of inflation as measured by Consumer Price Index (CPI) on year-on-year basis to 5% from 8% in the previous year. Which of the following statements represents the situation? (1 mark)

- (a) CPI has fallen (b) CPI has risen at a rate lower than the preceding year  
(c) CPI is constant (d) None of the above

Q.4 Depreciation is also known as: (1 mark)

- (a) Capital loss (b) Unforeseen obsolescence  
(c) Capital allowance (d) Both (a) and (b)

Q.5 Calculate "Intermediate Consumption" from the following data: (3 marks)

S. No.	Items	(₹ in crore)
(i)	Gross value of output	300
(ii)	Net value added at factor cost (NVAfc)	100
(iii)	Subsidies	15
(iv)	Depreciation	30

Q.6 Which of the following items will be included/not included while estimating Gross Domestic Product? Give valid reasons in support of your answer.

- (a) Wages received by an Indian working in the British Embassy in India.  
(b) Financial aids received from abroad after "Fani cyclone".  
(c) Purchase of second hand machinery from abroad.

Q.7 What is meant by the problem of double counting? Discuss briefly the two approaches to avoid this problem. (3 marks)

Q.8 (a) Distinguish between Real Gross Domestic Product and Nominal Gross Domestic Product. (3 marks)

(b) "Real Gross Domestic Product is a better indicator of economic growth than Nominal Gross Domestic Product."

Do you agree with the given statement? Support your answer with a suitable numerical example. (4 marks)

Q.9 (a) The value of the nominal GNP of an economy was ₹2500 crore in a particular year. The value of GNP of that country during the same year, evaluated at the prices of base year, was ₹3000 crore. Calculate the value of the GNP deflator of the year in percentage terms. Has the price level risen between the base year and the year under consideration? (3 marks)

(b) Calculate compensation of employees from the following data: (3 marks)

S. No	Particulars	Amount (in ₹ crore)
i.	Profits after tax	20
ii.	Interest	45
iii.	Gross Domestic Product at Market Price	200
iv.	Goods and Services Tax	10
v.	Consumption of Fixed Capital	50
vi.	Rent	25
vii.	Corporate Tax	5

### Self Assessment Test 2

### National Income and Related Aggregates

Time allowed : 1 hour

Maximum Marks : 25

- Q.1 Define an intermediate good. (1 mark)
- Q.2 Wages received by an Indian working in the British Embassy in India will be included in Gross Domestic Product (GDP) of India. True/False? Give reason. (1 mark)
- Q.3 If the national income is ₹2,800 crore and NDP<sub>f</sub> is ₹3,000 crore, which of the following option will be correct? (1 mark)
- Factor income from abroad ₹500 and factor income to abroad is ₹200
  - Factor income from abroad ₹400 and factor income to abroad is ₹600
  - Factor income from abroad ₹600 and factor income to abroad is ₹400
  - Factor income from abroad ₹700 and factor income to abroad is ₹700
- Q.4 Which of the following would be the normal resident of India? (1 mark)
- An Indian working in an American embassy in India
  - An Indian working in Singapore branch of an Indian bank.
  - A team of German engineers in India on official job for six months.
  - Five Afghan student pursuing law in India for the last four years
- Q.5 "Circular flow of income in a two sector economy is based on the axiom that one's expenditure is other's income." Do you agree with the given statement? Support your answer with valid reasons. (3 marks)
- Q.6 "India's GDP is expected to expand 7.5% in 2019-20: World Bank" — *The Economic Times*. Does the given statement mean that welfare of people of India increase at the same rate? Comment with reason. (3 marks)
- Q.7 Calculate "Depreciation" from the following data: (3 marks)

S. No.	Items	(₹ in crore)
(i)	Gross value of output	300
(ii)	Net value added at factor cost (NVA <sub>f</sub> )	100
(iii)	Subsidies	15
(iv)	Intermediate Consumption	185

Q.8 Using numerical example, distinguish between Real National Income and Nominal National Income.

OR

Explain any three precautions while calculating GDP by Value Added Method. (6 marks)

Q.9 (a) Distinguish between net factor from abroad and net exports. (2 marks)

(b) Calculate the value of "Mixed Income of Self-Employed" from the following data : (4 marks)

S. No.	Items	(₹ in crore)
(i)	Compensation of Employees	17,300
(ii)	Interest	1,200
(iii)	Consumption of Fixed Capital	1,100
(iv)	Mixed Income of Self-Employed	?
(v)	Subsidies	750
(vi)	Gross Domestic Product at Market price	27,500
(vii)	Indirect Taxes	2,100
(viii)	Profits	1,800
(ix)	Rent	2,000

### Self Assessment Test 3

### National Income and Related Aggregates

Time allowed : 1 hour

Maximum Marks : 25

Q.1 What are 'non-monetary exchanges'?

Q.2 Define "Value Addition"?

Q.3 When national income (product) of the current year is estimated on the basis of prices prevailing in the current year, it is called (i) \_\_\_\_\_ whereas when it is estimated on the basis of prices prevailing in the base year, it is called (ii) \_\_\_\_\_. (real national income/nominal national income) (Fill in the blanks with the correct options) (1 mark)

Q.4 If Real GDP = ₹240 crore and Price Index = 120, Nominal GDP = \_\_\_\_\_? (1 mark)

Q.5 Calculate "Gross value of output" from the following data: (3 marks)

S. No.	Items	(₹ in crore)
(i)	Net value added at factor cost (NVA <sub>fc</sub> )	100
(ii)	Depreciation	30
(iii)	Subsidies	15
(iv)	Intermediate Consumption	185

Q.6 If in a locality, a new park is developed by the municipal corporation, it will have externalities, both positive and negative. State an example each of both types of externalities with reason. (3 marks)

Q.7 Define the problem of double counting in the computation of national income. State any two approaches to correct the problem of double counting. (3 marks)

Q.8 Explain any three precautions while calculating national income by Income Distributed Method. (6 marks)

OR

Will the following be included in domestic factor income of India? Give reasons in support of your answer. (6 marks)

(i) Compensation of employees paid by a foreign company located in India.

(ii) Compensation of employees paid by American embassy in India to resident Indians.

(iii) Expenditure on engine oil by car service station.

Q.9 Given the following data, find the values of 'Operating Surplus' and 'Gross Domestic Capital Formation': (6 marks)

S. No.	Items	(₹ in crore)
		2,000
i	Government Final Consumption Expenditure	1,500
ii	Mixed Income of Self-Employed	12,000
iii	National Income	200
iv	Net Factor Income from Abroad	?
v	Operating Surplus	500
vi	Profits	6,000
vii	Private Final Consumption Expenditure	700
viii	Net Indirect Taxes	1,800
xi	Net Exports	600
x	Consumption of Fixed Capital	?
xi	Gross Domestic Capital Formation	6,000
xii	Wages and Salaries	

### Self Assessment Test 1.1

## Chapter 1: Indian Economy on the Eve of Independence

Maximum Marks : 25

Time allowed : 1 hour

- Q.1 Arrange the following events of India before the independence in chronological order: (1 mark)
- The opening of the Suez Canal
  - Introduction of the railways
  - Second stage of demographic transition
  - Incorporation of the Tata Iron and Steel Company
- Q.2 India's demographic condition on the eve of independence was characterised by: (Choose the correct alternative) (1 mark)
- High level of literacy, high mortality rates, high life expectancy and high level of poverty.
  - Low level of literacy, low mortality rates, low life expectancy and Low level of poverty.
  - Low level of literacy, low mortality rates, high life expectancy and high level of poverty.
  - Low level of literacy, high mortality rates, low life expectancy and high level of poverty.
- Q.3 \_\_\_\_\_ is considered as one of the most important contributions of the British. (Choose the correct alternative) (1 mark)
- Construction of all-weather roads
  - Introduction of the railways in 1850
  - Introduction of electric telegraph in India
  - The postal services
- Q.4 Under the British colonial rule, the agricultural production decreased. True/False? Give reason. (1 mark)
- Q.5 One of the significant drawbacks of the industrial policy pursued by the British colonial administration was the very limited area of operation of the public sector. This sector remained confined only to the \_\_\_\_\_. (1 mark)
- Q.6 What was the focus of the economic policies pursued by the colonial government in India? What were the impacts of these policies? (3 marks)
- Q.7 What was the two-fold motive behind the systematic deindustrialisation effected by the British in pre-independent India? (3 marks)

- Q.8 Highlight the salient features of India's pre-independence occupational structure. (4 marks)
- Q.9 "Under the colonial regime, basic infrastructure such as railways, ports, water transport, posts and telegraph develop. However, the real motive behind infrastructure development was not to provide basic amenities to the people but to subserve various colonial interests."  
What objectives did the British intend to achieve through their policies of infrastructure development in India? (4 marks)
- Q.10 "The social and economic challenges before India at the time of independence were enormous."  
Do you agree with the statement? Give reasons. (6 marks)

## Self Assessment Test 1.2

### Chapter 1: Indian Economy on the Eve of Independence

Time allowed : 1 hour

Maximum Marks : 25

- Q.1 Write the correct sequence of alternatives given in Column II by matching them with respective terms in Column I. (1 mark)

Column I	Column II
A. India's first official census	(i) less than 2%
B. Introduction of the railways in India	(ii) about 7%
C. India's annual growth rate of aggregate real output during colonial period	(iii) 1850
D. Female literacy level at the time of independence	(iv) 1881

- Q.2 The opening of the Suez Canal in 1869: (Choose the correct alternative) (1 mark)
- Raised the cost of transportation between Britain and India.
  - Intensified British control over India's foreign trade.
  - Reduced the cost of transportation and made access to the Indian market easier.
  - Both (b) and (c)
- Q.3 The country's growth rate of aggregate real output during the first half of the twentieth century was only (i) \_\_\_\_\_ and per capita real output was (ii) \_\_\_\_\_. (Fill up the blanks with correct answers) (1 mark)
- Q.4 Commercialisation of agriculture helped farmers in improving their economic condition. True/False? Give reason. (1 mark)
- Q.5 Name some notable economists who estimated India's per capita income during the colonial period. (1 mark)
- Q.6 How did the restrictive policies of commodity production, trade and tariff pursued by the British colonial government affect the structure, composition and volume of foreign trade? (3 marks)
- Q.7 Although there was some evidence of a relatively higher yield of cash crops in certain areas of the country due to commercialisation of agriculture, but this could hardly help farmers in improving their economic condition. Explain why. (3 marks)
- Q.8 "The introduction of the railways in India was considered as one of the most important contributions of the British. However, the social benefits, which the Indian people gained owing to the introduction of the railways, were outweighed by the country's huge economic loss."  
Do you agree with the above statement? Give valid reasons. (4 marks)
- Q.9 Give a quantitative appraisal of India's demographic profile during the colonial period. (4 marks)
- Q.10 Underscore some of India's most crucial economic challenges at the time of independence. (6 marks)

## Chapter 1: Indian Economy on the Eve of Independence

Time allowed : 1 hour

Maximum Marks : 25

Q.1 Write the correct sequence of alternatives given in Column II by matching them with respective terms in Column I: (1 mark)

Column I	Column II
A. Focus of the economic policies pursued by the colonial government in India	(i) To use a large export surplus to make payments for the expenses incurred by an office set-up in British, expenses on war, and import of invisible items.
B. Motive of the British behind the systematic deindustrialisation in India	(ii) To reduce India to the status of a mere exporter of important raw materials for the upcoming modern industries in Britain.
C. Motive of the British behind infrastructural development in India	(iii) Protection and promotion of the economic interests of their home country then with the development of the Indian economy.
D. Motive of the British behind monopoly control over India's exports and imports	(iv) To subserve various colonial interests, e.g. mobilising the army within India and drawing out raw materials from the countryside to the nearest railway station or the port to send these to England.

- Q.2 The stagnation in the agricultural sector during the colonial rule was caused mainly because of \_\_\_\_\_ that were introduced by the colonial government. (1 mark)
- Q.3 During the second half of the 19th century, the cotton textile mills, mainly dominated by Indians, were located in (i) \_\_\_\_\_, while jute mills dominated by the foreigners were mainly concentrated in (ii) \_\_\_\_\_. (1 mark)
- Q.4 Which is regarded as the defining year to mark the demographic transition from its first to the second decisive stage? (1 mark)
- Q.5 During the British colonial rule, the various social development indicators were not quite encouraging. The overall literacy level was (i) \_\_\_\_\_. Out of this, the female literacy level was at a negligible low of about (ii) \_\_\_\_\_. (1 mark)
- Q.6 How did the Zamindari system of revenue settlement introduced by the colonial government cause immense misery and social tension among the cultivators? Why did the Zamindars adopt such an attitude? (3 marks)
- Q.7 What was the two-fold motive behind the systematic deindustrialisation effected by the British in pre-independent India? (3 marks)
- Q.8 How did the restrictive policies of commodity production, trade and tariff pursued by the colonial government adversely affect the structure, composition and volume of India's foreign trade? Explain. (4 marks)
- Q.9 Highlight the salient features of India's pre-independence occupational structure. (4 marks)
- Q.10 "During the British colonial rule, despite being the occupation of about 85% of India's population, the agriculture sector continued to experience stagnation and, not infrequently, unusual deterioration. Agricultural productivity became low."  
Do you agree with the above statement? Give valid reasons in support of your answer. (6 marks)



## Chapter 2: Indian Economy (1950-1990)

Time allowed : 1 hour

Maximum Marks : 25

- Q.1 After the independence, the state had to play an extensive role in promoting the industrial sector. The decision to develop the Indian economy on socialist lines led to the policy of the state controlling the commanding heights of the economy, as the \_\_\_\_\_ put it. (Choose the correct alternative) (1 mark)
- (a) First Five Year plan  
(b) Second Five Year plan  
(c) Third Five Year plan  
(d) Seventh Five Year plan
- Q.2 Write the correct sequence of alternatives given in Column II by matching them with respective terms in Column I: (1 mark)

Column I	Column II
A. Karve Committee, 1955	(i) To encourage farmers for adopting new HYV technology.
B. Industrial Policy Resolution, 1956	(ii) Using small-scale industries to promote rural development.
C. Import Substitution Policy	(iii) To protect the domestic firm from foreign competition.
D. Subsidies	(iv) To regulate private sector through a system of licensing to promote regional equality.

- Q.3 Match the following and choose the correct alternative: (1 mark)

1. Prime Minister	(A) The money value of all the final goods and services produced within the economy in one year
2. Gross Domestic Product	(B) Adoption of new technology
3. Modernisation	(C) Chairperson of the planning commission
4. Self-sufficiency	(D) Avoiding imports of those goods which could be produced in India itself.

- (a) 1-D, 2-A, 3-B, 4-C  
(b) 1-C, 2-A, 3-B, 4-D  
(c) 1-D, 2-A, 3-C, 4-B  
(d) 1-C, 2-B, 3-A, 4-D

- Q.4 Just a year after independence, steps were taken to abolish intermediaries and to make the tillers the owners of land. The idea behind this move was: (Choose the correct alternative) (1 mark)
- (a) to reduce the concentration of land ownership in a few hands.  
(b) that ownership of land would give incentives to the tillers to invest in making improvements.  
(c) fixing the maximum size of land which could be owned by an individual.  
(d) to reduce the vast inequality in land holding.

- Q.5 Eliminating subsidies will violate the goal of equity. True/False? Give reason. (1 mark)

- Q.6 Why was public sector given a leading role in industrial development during the planning period? (3 marks)

- Q.7 Though it is argued that there is no case for continuing with fertiliser subsidies as it does not benefit the target group and it is a huge burden on the government's finances, yet some experts believe that the government should continue with agricultural subsidies. (3 marks)

What arguments do they give in favour of giving subsidies?

- Q.8 Explain how import substitution can protect domestic industry. Why did the policy makers adopt such policy of protection? (4 marks)

- Q.9 What is the role of small scale industries in industrial development of India? Why and how has the government shielded small scale industries from the large firms? (4 marks)

- Q.10 How far the land reforms in the agriculture sector in India were successful in their implementation? Explain? (6 marks)



## ASSIGNMENTS

### (i). Order, Addition, Multiplication and transpose of matrices:

#### LEVEL I

1. If a matrix has 5 elements, what are the possible orders it can have? [CBSE 2011]
2. Construct a  $3 \times 2$  matrix whose elements are given by  $a_{ij} = \frac{1}{2}i - 3j$
3. If  $A = \begin{bmatrix} 1 & 2 & 3 \\ 3 & 1 & 3 \end{bmatrix}$ ,  $B = \begin{bmatrix} 2 & 3 & 1 \\ 1 & 0 & 2 \end{bmatrix}$ , then find  $A - 2B$ .
4. If  $A = \begin{bmatrix} 2 & 1 & 4 \\ 4 & 1 & 5 \end{bmatrix}$  and  $B = \begin{bmatrix} 3 & -1 \\ 2 & 2 \\ 1 & 3 \end{bmatrix}$ , write the order of  $AB$  and  $BA$ .

#### LEVEL II

1. For the following matrices  $A$  and  $B$ , verify  $(AB)^T = B^T A^T$ ,  
where  $A = \begin{bmatrix} 1 \\ -4 \\ 3 \end{bmatrix}$ ,  $B = \begin{bmatrix} -1 & 2 & 1 \end{bmatrix}$
2. Give example of matrices  $A$  &  $B$  such that  $AB = O$ , but  $BA \neq O$ , where  $O$  is a zero matrix and  $A, B$  are both non zero matrices.
3. If  $B$  is skew symmetric matrix, write whether the matrix  $(ABA^T)$  is Symmetric or skew symmetric.
4. If  $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$  and  $I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ , find  $a$  and  $b$  so that  $A^2 + aI = bA$

#### LEVEL III

1. If  $A = \begin{bmatrix} 2 & 0 & 1 \\ 2 & 1 & 3 \\ 1 & -1 & 0 \end{bmatrix}$ , then find the value of  $A^2 - 3A + 2I$
2. Express the matrix  $A$  as the sum of a symmetric and a skew symmetric matrix, where:  
 $A = \begin{bmatrix} 3 & -2 & -4 \\ 3 & -2 & -5 \\ -1 & 1 & 2 \end{bmatrix}$
3. If  $A = \begin{bmatrix} a & b \\ 0 & 1 \end{bmatrix}$ , prove that  $A^n = \begin{bmatrix} a^n & \frac{b(a^n - 1)}{a - 1} \\ 0 & 1 \end{bmatrix}$ ,  $n \in \mathbb{N}$

### (ii) Cofactors & Adjoint of a matrix

#### LEVEL I

1. Find the co-factor of  $a_{ij}$  in  $A = \begin{bmatrix} 2 & -3 & 5 \\ 6 & 0 & 4 \\ 1 & 5 & -7 \end{bmatrix}$
2. Find the adjoint of the matrix  $A = \begin{bmatrix} 2 & -1 \\ 4 & 3 \end{bmatrix}$

#### LEVEL II

- Verify  $A(\text{adj}A) = (\text{adj}A)A = |A|I$  if
1.  $A = \begin{bmatrix} 2 & 3 \\ -4 & -6 \end{bmatrix}$
  2.  $A = \begin{bmatrix} 1 & 2 & 3 \\ 2 & 3 & 2 \\ 3 & 3 & 4 \end{bmatrix}$

### (iii) Inverse of a Matrix & Applications

#### LEVEL I

1. If  $A = \begin{bmatrix} 2 & 3 \\ 5 & -2 \end{bmatrix}$ , write  $A^{-1}$  in terms of  $A$  CBSE 2011
2. If  $A$  is square matrix satisfying  $A^2 = I$ , then what is the inverse of  $A$ ?
3. For what value of  $k$ , the matrix  $A = \begin{bmatrix} 2-k & 3 \\ -5 & 1 \end{bmatrix}$  is not invertible?

#### LEVEL II

1. If  $A = \begin{bmatrix} 3 & -5 \\ -4 & 2 \end{bmatrix}$ , show that  $A^2 - 5A - 14I = O$ . Hence find  $A^{-1}$
2. If  $A, B, C$  are three non zero square matrices of same order, find the condition on  $A$  such that  $AB = AC \Rightarrow B = C$ .

3. Find the number of all possible matrices  $A$  of order  $3 \times 3$  with each entry 0 or 1 and for which  $A \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 1 \\ 0 \\ 0 \end{bmatrix}$  has exactly two distinct solutions.

### LEVEL III

1. If  $A = \begin{bmatrix} 2 & 3 & 1 \\ -3 & 2 & 1 \\ 5 & -4 & -2 \end{bmatrix}$ , find  $A^{-1}$  and hence solve the following system of equations:  
 $2x + 3y + 5z = 11$ ,  $3x + 2y + 4z = -5$ ,  $x + y + 2z = -3$

2. Using matrices, solve the following system of equations:

a.  $x + 2y - 3z = -4$   
 $2x + 3y + 2z = 2$   
 $3x - 3y - 4z = 11$

[CBSE 2011]

b.  $4x + 3y + 2z = 60$   
 $x + 2y + 3z = 45$   
 $6x + 2y + 3z = 70$

[CBSE 2011]

3. Find the product  $AB$ , where  $A = \begin{bmatrix} 1 & -1 & 0 \\ 2 & 3 & 4 \\ 0 & 1 & 2 \end{bmatrix}$ ,  $B = \begin{bmatrix} 2 & 2 & -4 \\ -4 & 2 & -4 \\ 2 & -1 & 5 \end{bmatrix}$  and use it to solve the equations  $x - y = 3$ ,  $2x + 3y + 4z = 17$ ,  $y + 2z = 7$

4. Using matrices, solve the following system of equations:

$$\frac{1}{x} - \frac{1}{y} + \frac{1}{z} = 4$$

$$\frac{2}{x} + \frac{1}{y} - \frac{3}{z} = 0$$

$$\frac{1}{x} + \frac{1}{y} + \frac{1}{z} = 2$$

5. Using elementary transformations, find the inverse of the matrix

$$\begin{bmatrix} 1 & 2 & -2 \\ -1 & 3 & 0 \\ 0 & -2 & 1 \end{bmatrix}$$

(iv) To Find The Difference Between  $|A|$ ,  $|adjA|$ ,  $|kA|$

### LEVEL I

1. Evaluate  $\begin{vmatrix} \cos 15^\circ & \sin 15^\circ \\ \sin 75^\circ & \cos 75^\circ \end{vmatrix}$  [CBSE 2011]
2. What is the value of  $|3I|$ , where  $I$  is identity matrix of order 3?
3. If  $A$  is non singular matrix of order 3 and  $|A| = 3$ , then find  $|2A|$
4. For what value of  $a$ ,  $\begin{bmatrix} 2a & -1 \\ -8 & 3 \end{bmatrix}$  is a singular matrix?

### LEVEL II

1. If  $A$  is a square matrix of order 3 such that  $|adjA| = 64$ , find  $|A|$
2. If  $A$  is a non singular matrix of order 3 and  $|A| = 7$ , then find  $|adjA|$

4. Express  $A = \begin{bmatrix} 3 & 2 & 3 \\ 4 & 5 & 3 \\ 2 & 4 & 5 \end{bmatrix}$  as the sum of a symmetric and a skew-symmetric matrix.

5. Let  $A = \begin{bmatrix} -1 & -4 \\ 1 & 3 \end{bmatrix}$ , prove by mathematical induction that :  $A^n = \begin{bmatrix} 1-2n & -4n \\ n & 1+2n \end{bmatrix}$ .

6. If  $A = \begin{bmatrix} 3 & 1 \\ 7 & 5 \end{bmatrix}$ , find  $x$  and  $y$  such that  $A^2 + xI = yA$ . Hence find  $A^{-1}$ .

7. Let  $A = \begin{bmatrix} 0 & -\tan \frac{\alpha}{2} \\ \tan \frac{\alpha}{2} & 0 \end{bmatrix}$  and  $I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$ . Prove that  $I + A = (I - A) \begin{bmatrix} \cos \alpha & -\sin \alpha \\ \sin \alpha & \cos \alpha \end{bmatrix}$ .

8. Solve the following system of equations :  $x + 2y + z = 7$ ,  $x + 3z = 11$ ,  $2x - 3y = 1$ .

9. Find the product  $AB$ , where  $A = \begin{bmatrix} -4 & 4 & 4 \\ -7 & 1 & 3 \\ 5 & -3 & -1 \end{bmatrix}$  and  $B = \begin{bmatrix} 1 & -1 & 1 \\ 1 & -2 & -2 \\ 2 & 1 & 3 \end{bmatrix}$  and use it to solve

the equations  $x - y + z = 4$ ,  $x - 2y - 2z = 9$ ,  $2x + y + 3z = 1$ .

10. Find the matrix  $P$  satisfying the matrix equation  $\begin{bmatrix} 2 & 1 \\ 3 & 2 \end{bmatrix} P \begin{bmatrix} -3 & 2 \\ 5 & -3 \end{bmatrix} = \begin{bmatrix} 1 & 2 \\ 2 & -1 \end{bmatrix}$ .

### Lab Manual work

Complete 5 Lab Manual practical's discussed in Class.

### Political Science

A. Make Project file on the following topics.

Topic	Roll Numbers
1. United Nations and its Organizations	1,5,9,13,17
2. India's Foreign Policy	2,6,10,14,18
3. Globalization	3,7,11,15,19
4. Challenges of Nation Building	4,8,12,16

### PHYSICAL EDUCATION

Make a project report on yoga

### Information Technology

Revise Employability Skills - IV

### Music Vocal

प्रश्न 1 निम्नलिखित पर संक्षिप्त टिप्पणी कीजिए।

अलंकार कन खटका मीड आलाप ताना

प्रश्न 2 राग भैरव का संपूर्ण परिचय लिखिए।

प्रश्न 3 रागो के समय सिद्धात के विषय में विस्तार से लिखिए।

प्रश्न 4 झप ताल रूपक ताल धमार ताल का परिचय 1 गुण 2 गुण 3 गुण व चौगुन सहित लिखिए।

प्रश्न 5 अपनी प्रैक्टिकल फाइल पूरी करें।