



# DELHI PUBLIC SCHOOL, RANCHI

## Assignment

2018-2019

XII

## ECONOMICS

### SECTION- A

1. What do you mean by the production possibility of an economy?
2. What happens to budget set if both the prices and income double?
3. Explain the problem of whom to produce.
4. Distinguish between inferior goods and normal goods.
5. What is opportunity cost? Explain it with the help of an example.
6. How is demand for a good affected by fall in price of other goods? Explain.
7. A consumer buys certain quantity of a good at a price of Rs. 10 per unit. When the price falls to Rs. 8 per unit he buys 40 percent more quantity. Calculate price elasticity of demand.
8. Explain the meaning of price elasticity of demand. What will be the price elasticity of demand in the following cases:
  - (i) A rise in the price of commodity increases the total expenditure on it.
  - (ii) A fall in the price of commodity increases the total expenditure on it.
  - (iii) A change in price does not change the total expenditure.
9. Explain the concept of marginal rate of substitution with the help of a schedule. What will be the reaction of the consumer when (i) price ratio of two goods is higher than marginal rate of substitution and (ii) price ratio of two goods is lower than the marginal rate of substitution?
10. Distinguish between “change in demand” and “Change in quantity demanded” with the help of diagrams.
11. How is demand for a commodity affected by changes in the price of related goods? Explain with help of diagrams.

### SECTION- B

12. What is consumption function? Explain.
13. Define statutory liquidity ratio.
14. When will GDP of an economy be greater than GNP
15. Should the following be treated as final expenditure or intermediate expenditure? Give reasons for your answer.
  - (i) Expenditure on maintenance by a firm.
  - (ii) Expenditure on free education provided by the government.
  - (iii) Payment of electricity bill by school.
16. State whether the following are factor income or transfer income. Give reasons for your answer.
  - (i) Bonus given by the employer to the employees.
  - (ii) Interest received by a household on its deposit in the bank.
  - (iii) Income from indirect tax.

17. Calculate the value of output from the following data.

	Items	Rs. In lakh
i.	Subsidy	10
ii.	Intermediate consumption	150
iii.	Net Addition to stock	(-) 13
iv.	Depreciation	30
v.	Excise Duty	20
vi.	NVA <sub>FC</sub>	250

18. Explain the problem of double counting. What are the methods to avoid this problem?
19. Explain the implications of Fiscal Deficit. Can there be fiscal deficit without revenue deficit?

20. Distinguish between:-

- (i) Revenue Expenditure and Capital Expenditure
- (ii) Direct Tax and Indirect Tax

21. How are the following treated while estimating national income of India? Give reasons for your answer:

- (i) Family members working free on the farm owned by the family.
- (ii) Rent paid by the embassy of Japan in India to a resident in India.
- (iii) Payment of interest on borrowings by general government.
- (iv) Transport expenses by a firm

22. From the following data calculate:

- (a)  $GNP_{MP}$  and (b) Net National Disposable Income

Sl. No.	Items	(Rs. In lakhs)
(i)	Compensation of employees	4000
(ii)	Rent	800
(iii)	Profit	1500
(iv)	Undistributed profit	400
(v)	Mixed Income of self employed	1800
(vi)	Net exports	(-)30
(vii)	Net Domestic Capital Formation	900
(viii)	Gross Domestic Fixed Capital Formation	1000
(ix)	Change in stock	50
(x)	Interest	900
(xi)	Net Indirect Tax	500
(xii)	Net Current Transfer from ROW	60
(xiii)	Net factor income to abroad	(-)80

23. From the following data calculate:

- (a)  $NDP_{MP}$  and (b) Factor Income to abroad

Sl. No.	Items	(Rs. In lakhs)
(i)	Change in stocks	20
(ii)	Government final consumption expenditure	280
(iii)	Private final consumption expenditure in the domestic market	600
(iv)	Exports	80
(v)	Imports	60
(vi)	Direct purchases abroad by resident households	60
(vii)	Factor income abroad	20
(viii)	Indirect taxes	40
(ix)	Subsidies	10
(x)	Net Capital Formation	200
(xi)	Consumption of fixed capital	20
(xii)	National Income	1110

## ACCOUNTANCY

1. Give two items that appear on the debit side of partner's current account.
2. Vinay and Naman are partners sharing profits in the ratio of 4:1. Their capitals were Rs. 90,000 and Rs.70,000 respectively. They admitted Prateek for 1/3<sup>rd</sup> share in the profits. Prateek brought Rs. 1,00,000 as his capital. Calculate the value of Firm's goodwill.
3. B Ltd., issued Rs. 6,00,000, 8% Debentures at a discount of 6%. The debentures were redeemable in four equal annual installments. Pass necessary journal entries for issue of debentures and prepare 'Discount on Issue of Debentures Account' for four years. Show your workings clearly.
4. Ajay, Bhavana and Shreya were partners sharing profits in the ratio 2:2:1. On 1<sup>st</sup> July,2017 Shreya died. The books of accounts are closed on 31<sup>st</sup> March every year. Sales for the year 2016-17 amounted to Rs.5,00,000 and that from 1<sup>st</sup> April to 30<sup>th</sup> June, 2017 were Rs. 1,40,000. The rate of profit during the past three years had been 10% on sales. Since Shreya's legal representative was her only son, who is specially abled, it was decided that the profit for the purpose of settling Shreya's account is to be calculated as 20% on sales.

(a) Calculate Shreya's share of profits till the date of her death and pass necessary Journal entry for the same.

(b) Also, state the value highlighted in the above para.

5. Sangam Ltd., invited applications for 80,000 equity shares of Rs. 10 each at par. The amount was payable as follows:-

On Application	Rs. 2
On Allotment	Rs. 4
On First and Final Call	Rs. 4

Applications for 1,00,000 shares were received. Allotment was made on pro-rata basis to all the applicants. Excess money received on applications was adjusted towards allotment dues. Satnam, who had applied for 1,000 shares, failed to pay the allotment money and his shares were immediately forfeited. Harnam did not pay the first and final call on 800 shares allotted to him. His shares were also forfeited. All the forfeited shares were reissued at Rs.12 per share as fully paid-up.

Pass necessary journal entries in the books of Sangam Ltd., for the above transactions.

5. A,B and C were partners sharing profits and losses in the ratio of 4:3:2 respectively. B retired when the capitals of A,B and C before the necessary adjustments stood at Rs. 2,19,500, Rs. 1,14,000 and Rs. 1,16,500 respectively. On the date of retirement, firm's goodwill was valued at Rs. 2,16,500 respectively and loss on revaluation of assets and liabilities was Rs. 27,000, general reserve Rs. 63,000 and the cash and bank balance on that date was Rs. 1,86,000. B was to be paid through cash brought in by A and C in such a way as to make their capitals proportionate to their new profit and loss sharing ratio of 5:3. Calculate the amount of cash to be paid off or to be brought in by the continuing partners assuming that a minimum cash and bank balance of Rs. 1,00,000 was to be maintained and pass the necessary journal entries.
6. From the following information, calculate the amount of medicines to be debited to the Income and Expenditure Account of National Hospital for the year ended 31<sup>st</sup> March,2018:

	Rs.
Stock of medicines as on 1 <sup>st</sup> April,2017	2,47,000
Stock of medicines as on 31 <sup>st</sup> March, 2018	3,69,000
Creditors for medicines as on 1 <sup>st</sup> April, 2017	17,85,000
Creditors for medicines as on 31 <sup>st</sup> , March, 2018	19,37,000
Paid to creditors for medicines during the year Ended 31 <sup>st</sup> March, 2018	20,00,000

7. The assets other than cash and bank transferred to Realisation Account are of Rs. 1,00,000. 50% of the assets are taken by a partner Atul, at a discount of 20%; 40% of the remaining assets were sold at a profit of 30% on cost; 50% of the balance being obsolete, realized nothing and the remaining assets are handed over to a creditor, in full settlement of his claim. You are required to record the journal entries for realization of assets.

## CHEMISTRY

### (Biomolecules)

1. Name the purines present in DNA ?
2. Write the name of linkage joining two amino acids ?
3. Name the base that is found in nucleotide of RNA ?
4. Deficiency of which vitamin causes survey ?
5. What type of linkage is responsible for the formation of proteins?
6. Describe what do you understand by primary and secondary structure of proteins?
7. What are the essential and non essential amino acids? Give one example of each.
8. Name two water soluble vitamins, their sources and diseases caused by their deficiency in diet ?
9. What is meant by denaturation of proteins ?
10. Define the following terms with two examples:
  - a) Nucleotide
  - b) Essential amino acids
11. Name the different type of RNA found in the cell. Mention their functions.
12. Define the following giving one example of each.
  - i) Peptide linkage
  - ii) Primary structure
  - iii) Denaturation
13.
  - i. What the structural difference between a nucleoside and nucleotide
  - ii. "The two strands of DNA are not identical but are complementary". Explain.
14. What are anomers ? Explain with help of an example .
15. Define the following giving one example of each .
  - i) Zwitter ion
  - ii Glycosidic linkage

### (Polymers)

1. Write the distinguishing feature between homopolymers and copolymers.
2. What is the difference between the two notations Nylon-6 and Nylon 6,6?
3. What is meant by copolymerization?
4. Write the name of monomer of neoprene.
5. Write the names of the monomer of the polymer  
[ NH-(CH<sub>2</sub>)<sub>6</sub> -NH-CO(CH<sub>2</sub>)<sub>4</sub>-CO- ]
6. Which of the following is the fibre?  
Nylon, Neoprene , PVC
7. Distinguishing between homopolymers and copolymers with an example of each.

8. What is the difference between elastomers and fibres? Give one example of each >
9. What is the repeating unit in the condensation polymer obtained by combining  
 $\text{HOOCCH}_2\text{CH}_2\text{COOH}$  (succinic acid)  $\text{H}_2\text{NCH}_2\text{CH}_2\text{NH}_2$  (ethylenediamine)
10. What are biodegradable polymers? Give an example of a biodegradable aliphatic polymer.
11. Differentiate between thermoplastics and thermosetting polymers. Give one example of each.
12. Write the monomers which are used for the synthesis of following polymers:
  - i) Terylene
  - ii) Polyethene
  - iii) Bakelite
13. Give one example of each:
  - i) addition polymers
  - ii) condensation polymers

### CHEMISTRY IN EVERYDAY LIFE

1. What are limited spectrum antibiotics? Give example.
2. What are cationic and anionic detergent? Give one example of each.
3. How do antiseptics differ from disinfectants? Give one example of each.
4. What are food preservatives? Name two such substances?
5. Why is bithional added to soap?
6. Which class of drugs are used for sleeping pills?
7. Differentiate between competitive and non-competitive inhibitors.
8. Explain with an example.
  - a) What is meant by the term 'broad spectrum antibiotics'? Explain.
  - b) What are artificial sweetening agents? Give two examples.
  - c) What problem arises in using alitame as artificial sweetener?
9. What are antihistamines? Give two examples. Explain how they act on the human body?
10.
  - a) Define chemotherapy.
  - b) While antacids and anti-allergic drugs interfere with functions of histamine, why do these not interfere with the function of each other?
11. What are biodegradable and non-biodegradable detergents? Give one example of each.
12. Why are cimetidine and ranitidine better antacids than sodium bicarbonate?
13. Low level of noradrenaline causes depression. What type of drug are used to cure this problem? Name two drugs.

14. Sulpha drugs work like antibiotics but are not antibiotics. Explain.
15. Differentiate between bacteriocidal and bactericidal antibiotics and give an example for each .
16. What are the following substances? Give one example of each:-  
 a) Antacids                                      b)Analgesics                                      c)Tranquilizers                                      d)Detergents  
 e) Antifertility drugs.                                      f) Antipyretics.
17. Give one important use of Boric acid and Cresols.
18. How does aspirin prevent heart attack?
19. What is an alkaloid? Name two alkaloids which are used as analgesics.
20. Give the composition of oral contraceptives.
21. Mention the action of the following on the human body :-  
 a) Bromopheniramine                                      b) Aspirin                                      c) Rantidine                                      d)Paracetamol  
 e)Tincture of Iodine                                      f) Equanil                                      g)Aspirin                                      h)Morphine
22. How do receptors transfer messages to the cells? Explain.
23. What are antioxidants? Give an example.

## **BIOLOGY**

### **HUMAN HEALTH AND DISEASE**

1. Expand each of the following to its full form  
 a. MALT    b. CMI    c AIDS    d .NACO    e HIV
2. Name the causative agents of the following diseases  
 a. Amoebiasis    b. Malaria    c . ascariasis    d. Pneumonia
3. Why should one take an immunosuppressants agent all through his life after an organ transplantation.
- 4 Differentiate the following. give examples of each  
 A Innate and acquired immunity  
 B Active and passive immunity
5. Explain the different kinds of tumour found.
6. With the help of diagram explain how infection is caused by HIV?
7. Explain the kind of barriers present in innate immunity.
- 8.Explain the life cycle of Plasmodium.
- 9 Differentiate humoral immune system and cell – mediated immune system
- 10 Define the term vaccine. What is the principle behind vaccination.

## **FINE ART- GRAPHICS / PAINTING**

- ▶ Write a note on the Modern Trends in Indian Art.
- ▶ How modern Trends developed in Indian Art? Write answer giving example of few artists and paintings.
- ▶ Evaluate the aesthetic grandeur of *any* of the following Contemporary (Modern) Indian paintings based on its (a) Name of artist, (b) Medium & technique, (c) Subject-matter and (d) Composition

- (i) Mother and Child (Painted by Jamini Roy)
- (ii) Untitled (Painted by G.R. Santosh)
- (iii) Mother Teresa (Painted by M.F. Hussain)
- (iv) Vulture (Painted by Kamlesh Dutt Pandey)
- (v) Words and Symbols (Painted by K.C.S. Paniker)

- ▶ Evaluate the aesthetic grandeur of *any* of the following Contemporary (Modern) Indian art-works based on its (a) Name of the artist, (b) Medium & technique, (c) Subject-matter and (d) Composition :

- (i) Gossip (a painting)
- (ii) Children (a graphic-print) (iii) Santhal Family (a sculpture)

- ▶ Which one do you like or dislike most among all the Contemporary (Modern) Indian graphic-prints included in your course of study? Give your appropriate reasons in detail in the light of the capabilities of its graphic-artist in handling the medium & technique, depiction of the subject-matter and the way of composition.

- ▶ Give appropriate reasons as to why do you like or dislike the Contemporary (Modern) Indian Sculptures.
- ▶ Give appropriate reasons as to why do you like or dislike the Contemporary (Modern) Indian Sculpture or Painting.

- (1) Chaturmukhi (a sculpture)
- (2) Untitled (a painting)
- (3) Of Walls (a graphics)

- ▶ Write a short note on the compositional-arrangement of *any* of the following sculptures included in your course of study :

- (a) Vanshri
- (b) Triumph of Labour
- (c) Cries Unheard

- ▶ Highlight the aesthetic aspects of *any* of the following Contemporary (Modern) Indian Art-works, which you like most:

- (a) Man, Woman and Tree (a graphic-print)
- (b) Santhal Family (a sculpture)
- (c) Three Girls (a painting)

- ▶ Mention the name of the artist of each of the following Contemporary (Modern) Indian Art-works included in your course of study:

- (i) Magician (a painting)
- (ii) Three Girls (a painting)
- (iii) Gossip (a painting)
- (iv) Man, Woman and Tree (a graphic-print)
- (v) Ganesha (a sculpture)

- ▶ Mention the title of the art-work done by each of the following Contemporary (Modern) Indian artists, which is included in your course of study :

- (i) Jamini Roy (a painter)
- (ii) K. Laxma Goud (a graphic-artist)
- (iii) Anupam Sud (a graphic-artist)

(iv) Amar Nath Sehgal (a sculptor)

(v) Aekka Yadagiri Rao (a sculptor)

► Mention the names of any three sculptors, a graphic-artist and a painter of the Contemporary (Modern) Indian Art included in your course of study.

► Write about the paintings of following artists (any 5).

Abanindranath Tagore- \_\_\_\_\_

Nandalal Bose- \_\_\_\_\_

Gagenendranath Tagore- \_\_\_\_\_

Jamini Roy- \_\_\_\_\_

M.F.Husain- \_\_\_\_\_

Krishna Reddy- \_\_\_\_\_

► Write the name of Paintings of following artists (any 5).

► Mention the title of the sculpture done by each of the following artists, which are included in your course of study.

- 1) Ramkinkar Baij
- 2) P.V.Jankiram
- 3) Amarnath Sehgal
- 4) Devi Prasad Roy Chowdhury
- 5) Aekka Yadagiri Rao
- 6) Mrinalini Mukherjee

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**For Practical Exams:-**

- Please complete your incomplete Practical works as soon as possible because time is less.
- Then only you can complete Portfolio and Practical Project Report and submit by middle of December which is compulsory.
- See the Practical topics (Practice it) and material list given in syllabus book.
- Be ready for Practical and Viva / Oral patterns related to theory, method and material of Fine Art.
- Bring Portfolio, Project Reports, along with all prescribed materials as given in your syllabus book

**Important instructions to learn Fine Art Theory**

- 1) Before reading about a Painting, see the colourful painting carefully in detail, see the subject objects arrangement composition lines colour details concept etc. and try to appreciate that painting yourself first.
- 2) Learn important data and appreciate painting in your own language.
- 3) Try to differentiate different paintings of different Schools and sub schools in a comparative chart.

**Important instructions for Fine Art Theory Exam:-**

- 1) Distribute time according to questions and complete all answers in that time frame. 8 questions of 5 marks each, of 2 hours.
- 2) Underline important data and points (key words) with pencil / black pen always to highlight it for examiner.

- 3) Use dark blue and dark black pen as and when required.
- 4) Change paragraph as and when required.
- 5) Write main data in starting, like period, medium, place, then composition, colour & description of art work and in last collection.
- 6) Answer should be according to question.
- 7) Handwriting should be good to score better marks.