



English Core

Q1. Read the passage carefully and answer the questions that follow.

THE PROCESS OF AGEING

1. The process of ageing starts with conception in the mother's womb. When we are young, we don't recognise that there will come a time when our limbs will grow weak, our eyesight less keen and our body unable to function as smoothly as before. The state, the society and the family owe a responsibility towards senior citizens.
2. Unfortunately, of late, we have not been able to recognise the concept of respecting, caring and helping older generations in a systematic way as some of the countries have done. This is not to suggest that our culture and history does not recognise this phase of life. There have been many practices of caring and helping the elderly in our system. But, with the dismantling of the joint family system, the problem has assumed a newer and more complicated shape. Although we have started recognising the needs of the young, when it comes to the old, we have blissfully chosen to ignore them and have left them to fend for themselves.
3. Of all the senior citizens of the world, one out of ten is an Indian. The population of old people in India is the 4th highest in the world. By official estimates, there are over 77 million old people in the country now. There are some schemes by the Ministry of Social Justice and Empowerment. There are also provisions of financial assistance for different welfare schemes.
4. There are old-age homes and residential units for lower income groups in some districts where there is a part-time medical officer to attend to the inmates. Then there are day-care centres and mobile medicare services besides other NGOs (Non-Government Organisations).
5. Not only are there insufficient old-age homes in the country, but they are also ill-equipped to cater to the elderly. This should be the responsibility of the state since they need close and regular monitoring. The social welfare departments in the government have very little to boast about when it comes to caring for the older generations.
6. Government officials are apathetic to the welfare of the old people and are unimaginative. However, once the need for helping senior citizens is recognised not only by the society at large but also by the government and certain concessions are sanctioned for them, there may be some headway in this direction.
7. Society, too, has an important role to play. It must do so by respecting the aged and placing their interests before anyone else's. In the West, if an old person is climbing down the stairs, he or she is helped. It is this kind of mindset that is the need of the hour. Offering seats to the old, helping them cross the roads, assisting them to carry their bags, fetching them water, etc., are some features which increase the acceptability of the older people.

Questions:

1. Choose the correct option.
 - (a) Presence of an old-age home signifies our..... towards the old people.
(i) apathy (ii) concern (iii) love (iv) fickle-mindedness
 - (b) Bureaucrats are to the welfare of the old people.
(i) different (ii) indifferent (iii) responsible (iv) humanitarian
 - (c) We must change our..... towards old people.
(i) mind (ii) mindset (iii) thoughts (iv) behaviour
 - (d) The population of old people in India is the highest in the world.
(i) 2nd (ii) 5th (iii) 4th (iv) 3rd
 - (e) Society must respect the elderly by
(i) giving them more importance (ii) forcing their children to look after them
(iii) having a special police force for them (iv) making sure that more wheelchairs are available

- (f) In the phrase 'respecting the aged', the word 'aged' means.....
 (i) a young man (ii) an ageing person (iii) an old man (iv) none

2. Answer the questions briefly:

- (a) At what time does the process of ageing start?
 (b) What happens when a man starts ageing?
 (c) Which factor is considered the most crucial to increasing the problems of the elderly?
 (d) What are the problems faced by old-age homes?
 (e) Which word in Para 2 means 'breaking down'?
 (f) Find a word in Para 6 which means the same as 'indifferent'?

Q2. The following passage has errors. Identify the errors in each line and write them along with the corrections as shown in the example.

	Error	Correction
You could not worry about my safety.	e.g. could not	<u>need not</u>
I told you I will inform you telegraphically.	(a)
You will not worry so much as it is bad	(b)
for your health. You should develop blood pressure	(c)
which will cause many complications.	(d)
I need consider this a personal favour.	(e)
I must write a letter to you every Sunday.	(f)
You would look after your health. On	(g)
whom should I rely if I missed you.	(h)

- Q3. Use the correct forms of the words given in brackets to complete the passage given below.
 Last Sunday when I (a) (return) home, I was shocked to find my house unlocked. Someone (b) (break) into my house in my absence. All the boxes (c) (be) open. I (d) (check) for the locker in which I (e)..... (put) my money, but it was nowhere. I (f) (report) the matter to the police. They (g)..... (take) some time to register my case. By that time the thief (h) (run) away.
- Q4. Rearrange the following words into meaningful sentences:
 (a) old daughter / cannot / Mini / live / my / five-year /chattering / without
 (b) vexed / at / her mother / this / is often
 (c) like to / prattle / I / but / would not / stop her / she / would
 (d) has / a minute / her life / Mini / not spent / in all / in silence/even
- Q5. Write a article in 120-150 words on a topic: 'Introspection- The need of the hour.'
- Q6. The grandmother is a silent voice in the story ' The Portrait of a Lady'. However her actions reveal her personality. Draw a character sketch of the grandmother citing examples from the text.
- Q7. The lesson 'We're not afraid to die...if we can all be together' depicts a grand lesson 'United we stand, divided we fall'. Explain the idea.

English Elective

- Q1. Book Review - Any book of your choice. Review to be prepared in Power Point Presentation.
- Q2. Any poem of your choice of any poet / poetess. Describe it covering a brief account of the poet, theme, summary and what appealed you the most.
- Q3. Write atleast 8 words / phrases from each chapter taught till 10th May and write their meanings.
- Q4. Write an essay on (any two topics) from the following:
 (a)Literature is a mirror to the society.
 (b)Internet influence on kids
 (c) Empowering Youth

Geography

Instructions:

1. The holiday homework should be done in a very neat and presentable manner.
2. Questions must be done in the given sequence.
3. The Child will be assessed for neatness, presentation, completion of all the given questions and timely submission.
4. For the project, posters, collage etc use a A4 sheet, drawing sheet or interleaf pages as per your convenience.
5. Last but not the least revise all the chapters done as it will help you in future assessments.

1. Answer the following questions

- a. Define the term mineral.
- b. Explain Rock cycle.
- c. What is a seismograph? How does it help in studying the earthquake waves?
- d. What were the forces suggested by Wegener for the movement of the continents?
- e. Distinguish between P waves and S waves
- f. Differentiate between terrestrial planets and Jovian planets
- g. Discuss geography as an integrating discipline.

2. Map Skills

Mark the following on the map of world

- a. Major continents and oceans
- b. Plate Boundaries
- c. Any two active volcano, two dormant volcano and two extinct volcano

3. Project:

Prepare a project on Intrusive Igneous landforms.

History

Instructions:

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1. Answer the following questions.

1. When did primates originate in Asia and Africa?
2. At which two places the earliest clear evidences of deliberate, planned hunting and butchery of large mammals have been found?
3. Give any two features of urban life in Mesopotamia.
4. How was the word cuneiform derived?
5. What formed the boundaries of the Roman Empire to the north as well as south?
6. Why was Roman ruler Augustus considered the Princeps?
7. Discuss the main features of family life in the Roman society.
8. How would early humans have obtained food?
9. Give main geographical features of Mesopotamia.

10. What is meant by Late Antiquity? Which religious and administrative changes were made during this period?
11. How did the earliest cities of southern Mesopotamia emerge? Throw light on construction and increasing importance of the temples built in those cities.
12. Go through the chapter An Empire Across Three Continents and pick out some basic features of Roman society and economy which you think make it look quite modern.

2. Map Skills

On an outline map of the world locate and label the given places.

- a) Important cities of Roman empire - Alexandria, Carthage, Antioch and Rome
- b) Cities of Mesopotamia - Ur, Uruk, Babylonia

3. Project:

With the help of pictures draw the process of human evolution from Primates to Homo sapiens sapiens.

Political Science

Instructions:

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2. Questions must be done in the given sequence.
3. The Child will be assessed for neatness, presentation, completion of all the given questions and timely submission.
4. For the project, posters, collage etc use a A4 sheet, drawing sheet or interleaf pages as per your convenience.
5. Last but not the least revise all the chapters done as it will help you in future assessments.

1. Answer the following questions

1. What is constitution?
2. Why do we need a constitution?
3. How does a constitution allow for minimal coordination amongst members of a society?
4. Which body created the Indian constitution? How much time was taken to create it?
5. With the help of system of checks and balances, explain that Indian institutional design is a balanced one.
6. Explain the statement, "Indian constitution is neither rigid nor flexible."
7. Why is the authority of the constitution considered higher than that of the Parliament?
8. Support the following conclusions with the help of examples:
 - a) The Indian constitution was made by the credible leaders who commanded people's respect.
 - b) The Indian constitution has succeeded in giving us a framework of democratic government.
9. Define the following:
 - a. Political Equality
 - b. Feminism
 - c. Slave Trade
10. What is Equality? Mention different kinds of equality.
11. Mention the main features of equality.
12. What are positive and negative aspects of equality?

Passage Based Questions

13. Read the passage (NCERT Textbook, page 18) given below and answer the questions that follow:
 "... I have realised as nobody else could have, with what Zeal and devotion the members of the Drafting Committee and especially its Chairman, Dr. Ambedkar in spite of his indifferent health have worked. We could never make a decision which was or could be ever so right as when we put him on the Drafting Committee and made him its Chairman. He has not only justified his selection but has added lustre to the work which he has done. In this connection, it would be invidious to make any distinction as among the other members of the Committee. I know they have all worked with the same zeal and devotion as its Chairman, and they deserve the thanks of the country."

Questions

1. Who was the Chairman of Drafting Committee?
2. What made the Constituent Assembly of India unique?
3. How long the Constitution of India took in framing?
4. Who was the Chairman of the Constituent Assembly?

14. Read the passage (NCERT Textbook, page 21) given below carefully and answer the questions that follow:
 "One likes to ask whether there can be anything new in a Constitution framed at this hour in the history of the world... The only new things, if there can be any, in a Constitution framed so late in the day are the variations made to remove the faults and to accommodate it to the needs of the country."

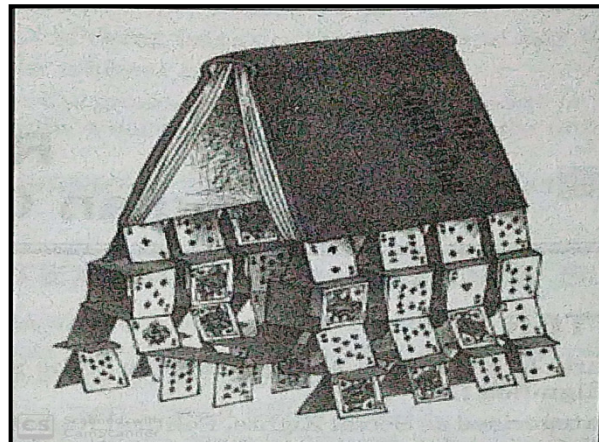
Questions

1. Whose words have been referred to here?
2. What was the main new thing a main new thing according to Dr. B.R. Ambedkar during the process of framing the Indian Constitution?

Cartoon/Picture Based Questions

15. Read the cartoon (NCERT Textbook page 14) given below and answer the questions that follow
Questions

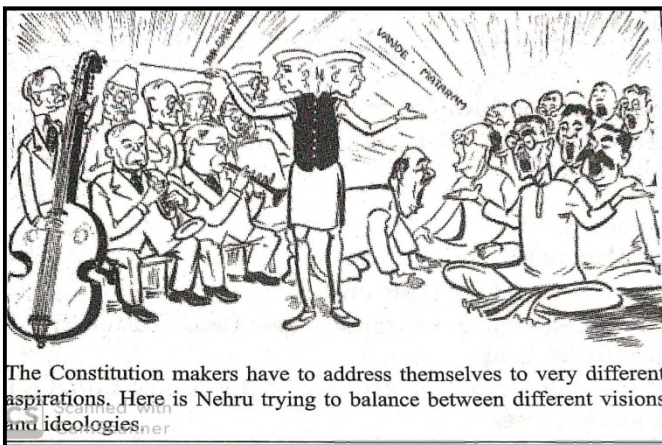
- i.) Why does the cartoonist describe the new Iraqi Constitution as the castle of cards?
- ii) Would this description apply to the Indian Constitution?



16. Read the cartoon (NCERT Textbook, page 7) given and answer the questions that follow:

Questions

- (i) Can you identify what these different groups stand for?
- (ii) Who do you think prevailed in this balancing act?



2. Project:

Prepare a project on any one of the following Topics

- a. Indian Constitution
- b. Fundamental Rights
- c. Fundamental Duties and Directive Principles of State Policy

Economics

UNIT-2 DEMAND THEORY

- Q1. The demand curve is generally:
- Downward sloping
 - Upward sloping
 - Horizontal parallel to the x-axis
 - Vertical parallel to the y-axis
- Q2. Which factor determines whether a commodity is normal or inferior?
- Price of commodity
 - Income of the consumer
 - Neither a) nor b)
 - Both a) and b)
- Q3. What does a downward movement along the same demand curve indicate?
- Increase in demand
 - Decrease in demand
 - Contraction in demand
 - Expansion in demand
- Q4. When the demand curve of a product shifts to the right, it represents a situation of
- Increase in demand
 - Expansion in demand
 - Decrease in demand
 - Contraction in demand
- Q5. A rightward shift in demand curve of a commodity may be caused by:
- Increase in consumer's income
 - Rise in price of substitute goods
 - Fall in price of complementary goods
 - All the above
- Q6. What causes an upward movement along a demand curve of a commodity?
- Rise in price of commodity
 - Fall in price of the commodity
 - Fall in price of substitute goods
 - Rise in price of complementary goods
- Q7. If due to fall in the price of good X, demand for Y rises, the two goods are:
- Substitutes
 - Complements
 - Not related
 - Competitive
- Q8. Law of demand explains:
- Inverse relation between price and demand
 - Direct relation between income and demand
 - The magnitude of change in demand in response to change in price
 - None of the above
- Q9. What kind of commodity will have inverse relation between income and demand?
- Normal good
 - Inferior good

- c) Essential good
- d) Luxury good

Q10. The slope of the demand curve of a normal good is:

- a) Negative
- b) Positive
- c) Zero
- d) Both (a) and (b)

Q11. Distinguish between normal goods and inferior goods.

Q12. Distinguish between complementary goods and substitute goods.

Q13. State and explain the law of demand with the help of a demand schedule and a curve.

Q14. Explain with the help of diagrams the effect of the following changes on the demand of a commodity.

- i. An unfavorable change in taste of the buyer for the commodity.
- ii. A fall in the income of its buyer, if the commodity is inferior.

Q15. Explain with the help of diagrams the effect of the following changes on the demand of a commodity.

- i. Fall in the price of substitute good
- ii. Fall in income of its buyers.

Accountancy

Special purpose subsidiary books

1. Give specimen of following with two entries in each case
 - Purchase book
 - Purchase return book
 - Salesbook
 - Sales return book
2. What is purchase book
3. What is sales book
4. What is debit note and credit note
5. Mention two transaction which are recorded in journal proper
6. When a sales book is maintained there is no need to open savings account in the ledger. do you agree?
7. An old machinery was sold to Manish for Rs. 56,000 name the book in which this entry will be recorded
8. What type of transaction are recorded in purchase book
9. Name various entry which have been to be passed through the general even though we might kept all subsidiary book in the business
10. Mention the subsidiary books in which the following transaction are recorded along with reason there of:
 - Purchase of furniture on credit for use in shop
 - Sales of goods on credit
 - Goods returned by debtors
 - Purchase of stock on credit
 - Providing for interest on capital for Proprietor
 - Goods return to creditors
 - Bill accepted by proprietor from creditor
 - Sales of goods for cash

Depreciation

1. Define depreciation.
2. Name causes of depreciation
3. Write four objective to providing depreciation
4. Give two factors for determining the amount of depreciation
5. What is the Residue law scrap value of an assets
6. What is original cost method of providing depreciation
7. Give the merits of providing depreciation by original cost

8. What is written down value method of providing depreciation
9. What is depreciable cost
10. The balance of machinery on 31st March 2019 is Rs. 97200 the machine was purchased on 1st April 2017 depreciation is charged @ 10% per annum by diminishing method find cost of price of machinery as on 1st April 2017
11. The WDV of after 3 years of depreciation on reducing balance method at the rate of 5% per annum of Rs. 49130. What was its original value
12. A limited purchase a machine for Rs. 500000 on 1st April 2012 further addition were made on 1st October 2012 on 1st July 2013 for Rs. four lakh and Rs. 3 lakh respectively on 1st January 2015 first machine was sold Rs.285000 and new machine purchased for Rs 600000
Prepare machinery account for 3 years ending 31st March 2015 if depreciation is to be charged @ 10% per annum on straight line basis.

Cash book

1. What are the special purpose books
2. Prepare Performa for petty cash book with imaginary figure
3. Due to advantage of subdivision of journal
4. What is cash book
5. Why cash book is called a book of original entry
6. Is cash book a journal or ledger
7. Write one difference between cash account and cash book
8. Give two advantage of maintaining cash book
9. What is imprest system of petty cash book
10. Why a cash book always shows Debit balance
11. What are Contra entries
12. Define bank overdraft

Q.5 Enter the following transaction in a single (simple) column Cash Book:-

2016	Rs.
March 1.	Cash Balance 25,000
March 2.	Bought goods for cash 10,000
March 5.	Sold goods for cash 9,000
March 10.	Goods purchased from Suman 15,000
March 13	Cash Sales 11,000
March 15	Paid to Suman 12,000
March 18	Purchased Furniture 2,000
March 21	Paid for Rent 1000
March 26	Received Commission 2,800
March 30	Paid Salary 1,200
March 31	Withdrew for personal use 800

[Ans. Cash Balance Rs.20800]

Bank reconciliation statement

1. What is bank reconciliation statement
2. Mention two causes of difference in the cash book and passbook balances
3. What is meant by Debit balance in passbook
4. Which balance are called overdraft of cash book and passbook
5. Name two item which are written in plus column while starting with Debit balance of cash book name two items which are written in - column while starting with Debit balance of cash book
6. Name two items which are written in plus column while starting with overdraft balance of cash book
7. Mention two item which are not recorded in amended cash book
8. Who is prepared bank reconciliation statement
9. Order as per cash book is Rs. 10000 cheques deposited but not credited Rs. 2500 cheques issued but not Ancash Rs. 3500 what is the balance as per pass book Bank charges Rs. 5000 debited twice in passbook what should be done in bank reconciliation statement if overdraft as per cash book is starting point

- Q.1 What do you mean by Accounting?
- Q.2 “Accounting is an arts and ‘science”. Coments.
- Q.3 Explain briefly three objective of Accounting.
- Q.4 Explain three difference between Book-Keeping and Accounting.
- Q.5 Write the advantage of Accounting?
- Q.6 What are the attributes (features) of accounting?
- Q.7 What is Accounting Cycle?
- Q.8 Explain briefly about following basic terms
 (i) Bank Overdraft (ii) Bills Receivable
 (iii) Goods (iv) Bad Debts
- Q.9 Explain any two of the following principles:
 (i) Money Measurement Principle
 (ii) Business Entity Principle
 (iii) Matching Principle
- Q.10 What is Journal?
- Q.11 What is narration?
- Q.12 What are Personal Accounts?
- Q.13 What are Real Accounts?
- Q.14 What are nominal Accounts?

Business Studies

Chapter -1 Nature and Purpose of Business

- Q1. Give an example of activity which is economic in one side and noneconomic on other side.
- Q2. Why is business considered an economic activity?
- Q3. If a person sells his domestic computer at a profit, will it be considered a business? Also explain the characteristic of business which is being stressed upon in the above said example.
- Q4. Name the economic activity in which specialised knowledge is required.
- Q5. Why is the insurance known as a tertiary industry?
- Q6. Mr Rajnesh sold his furniture & bike on OLX as he was shifting base to London. Is this a business activity? Which element of business is being referred to here?
- Q7. ABC Ltd. is planting a tree on roadside. Which objective it is trying to achieve?
- Q8. All human being fulfil their different needs by performing certain activities. Can you suggest and Explain the activities undertaken by them.
- Q9. Tea is mainly produced in Assam, while cotton in Gujrat&Maharastra but they are required for consumption in different parts of the country. How can this hindrance of place be removed? Also under what business activity will it be categorised.
- Q10. Categories the following into business, profession and employment.
 (i) A farmer (ii) An advocate (iii) A clerk (iv) A hawker selling toys for children (v) A doctor (vi) A person repairing scooter on roadside
- Q11. ‘Creative Strokes’ is an advertisement agency initiated by Rohit, Shagun&Pratima. They have called a meeting to discuss the below given points:
 (i) Increase the profit margin by 10% in May.
 (ii) Capturing a bigger share in the market.
 (iii) Making use of better cameras & improved techniques.
 (iv) Making best use of cameras, lights, cameramen, finance etc. employed by the business.
 (v) Improve efficiency in all regards of functioning of business
 (a) Which aspects of business objectives are being referred to here?
 (b) Also develop each point to be discussed in the meeting by classifying the objective.
- Q12. Nathu Lal prepares ‘Sonpapari’ for customers during Diwali season every year. He prepared more ‘Sonpapari’ than he could sell this year. He employed women and children also and paid them less salary manufacturing on the packages. This way he generated profit for himself.

- (a) Do you think he is fulfilling all the objectives of business?
 - (b) If not which aspects of this objective are not being fulfilled?
 - (c) Write any two values lacking in Nathu Lal.
- Q13. In business activities, there are some activities that are involved in the removal of hindrances in process of exchange i.e. from the producer to the consumer Identify them. Also classify the activities which help in removing the following hindrances:
- (i) Hindrance of place
 - (ii) Hindrance of risk
 - (iii) Hindrance of time
 - (iv) Hindrance of finance
 - (v) Hindrance of information
- Q14. Dr. Kumar is an orthopaedic surgeon in Jaipur Golden Hospital and Dr Mahajan, his friend is a Paediatrician who has set his own clinic. Dr Mahajan's wife, Ms. Rajni operates her Jewellery store. Compare & differentiate the nature of tasks undertaken by them.

Chapter 2 Forms of Business Organisations

- Q1. Write the name of form of business organisation found only in India.
- Q2. Name two types of business in which sole proprietorship is very suitable.
- Q3. Name the person who manages a Joint Hindu Family business.
- Q4. Write the names of systems which govern membership in Joint Hindu Family business.
- Q5. Enumerate the two conditions necessary for formation of Joint Hindu Family business.
- Q6. What is the minimum no. of persons required to form a co-operative society?
- Q7. Explain the meaning of unlimited liability.
- Q8. Name the type of co. which must have a minimum paid up capital of 5 lakhs.
- Q9. What is meant by minimum subscription?
- Q10. Identify a company which has no restriction of on transfer of shares.
- Q11. Explain the concept of mutual agency in partnership with suitable example.
- Q12. What is the rate of Karta in Joint Hindu Family business?
- Q13. Name the types of company which two persons can start.
- Q14. What is meant by partner by estoppels?
- Q15. What is secret partner?
- Q16. Mr. Singh is in 'lighting' business for the past 15 years. To help his friend, Mr. Yadav, a beginner he projected himself as a partner before Mohd. Abdul, a whole sale dealer of fancy lights. Mohd. Abdul gave Mr. Yadav the stock without asking for payment and gave him credit limit of one month. Will Mr. Singh be liable to Md. Abdul if Mr. Yadav does not pay him on time? Classify Mr. Singh's role here along with an explanation.
- Q17. Explain any four limitations of Joint Stock Company.
- Q18. Differentiate between private co. and public company.
- Q19. Dhirubhai Chaurasiya operates a textile business. His family is joint and has a lot of ancestral property. All the 15 family members are a part of this business. He is the eldest male member in the family so he heads the business. He is liable to all the creditors of the business as he is the decision maker. Dhirubhai's grandson has just born a few days ago and he is also the member of the business.
- a. Which form of business is being undertaken by Dhirubhai Chaurasiya?
 - b. Identify the features of this form of business based on the information given.
 - c. Textile business is part of which type of industry according to you?
- Q20. "Every day Amul collects milk from 2.12 million farmers (many illiterate) & converts the milk into branded packaged products & delivers goods all over the country. The story of Amul started in Dec, 1946 with a group of farmers been to free themselves from intermediaries, gain access to the market & there by ensure maximum returns for their efforts"
- a. From the above information, identify the form of business organisation used by Amul.
 - b. Also quote the line which suggest its features?
 - c. According to you, Amul is part of which type of industry

Project Work :

Students are required to present their view on 'Impact of Covid-19 Pandemic on Business World'.

Biology

1. Give a brief account of Corona Virus with respect to their structure and nature of genetic material .Draw and label its diagram.
2. Draw flow chart showing Plant Kingdom, mention characteristics of each group.
3. Complete the work up to chapter Plant kingdom.
4. Revise all the chapters completed before vacations.

Painting

Theory :

* Make fine arts notes of Ch. 1, 2, 3 with the help of given documents.

* Work Sheets (Done in note book)

Practical Work:

* Two Still Life (Draw & Shade)

* Two creative art work.

Physical Education

Practical 1 Labelled diagram of 400M. Track & Field with computations

Practical 2 Computations of BMI from family or neighborhood & graphical representation of the data.

Practical 3 Pictorial presentation of any five asanas for improving concentration

Practical 4 List of current National Awardees (Dronacharya Award, Arjuna award & Rajiv Gandhi Khel Ratna Award.

Practical 5 Any one game of your choice out of the list above labelled diagram of Field and equipment (rules, terminologies & Skills)

Athletics, Archary, Badminton, Boxing, Chess, Tennis, aerobics, Yoga, Swimming, Taekwondo, Rope skipping
Unified basketball for CWSN

Chemistry

- Q.1 What will be the mass of one atom of C -12 in gram ?
- Q.2 Calculate the number of Gram molecules of water in a beaker containing 576 gram of water.
- Q.3 Give an example of molecule in which the ratio of the molecular formula is 6 times the empirical formula .
- Q.4 Why are the atomic masses of most of the elements fractional ?
- Q.5 How does the intensity of the spectral line vary with wavelength ?
- Q.6 What do you mean by saying that energy of the electron is quantized?
- Q.7 What is the difference between a Quantum and a Photon?

Informtics Practices

- Q.1 State the basic unit of the computer. Name the subunits that make up the CPU, and give the function of each of the units.
- Q.2 Write three advantages of Python.
- Q.3 What is the difference between an interpreter and a compiler?
- Q.4 What is the difference between interactive mode and script in Python?
- Q.5 Explain the function of CPU of a mobile system.
- Q.6 What is Python? Why it is called as cross platform language?
- Q.7 Why a primary memory is called as 'Destructive write' memory but 'non-destructive read' memory?
- Q.8 Write three disadvantages of Python.
- Q.9 'Python is an interpreted language'. What do you mean by this statement?
- Q.10 Explain types of software with examples.

Python

1. Who developed Python and in which year?
2. What are the two modes of Python?
3. What is the file extension of a file in Python?
4. What are tokens?
5. What are keywords? Give two examples.
6. Identify and categorize the following identifier as valid and invalid
 - a) Myfile1

- b) `_abd`
 - c) Amount 1
 - d) `Int12`
 - e) `Stud_name`
 - f) `Age%`
7. How many tokens are there in the following expression- $z=2ab+c-d$
8. Write the Python command to print the following-
- a) Amit's Friend
 - b) I like "France"
9. Find the output of the following commands-

```
>>>print(45+6789)
>>>print(9**3)
>>>print(67//4)
>>>print(100%3)
>>>print('45'+ '345')
>>>print("hello \t World ")
>>>print("India \t is my \n Country)
>>>print("Hello" + "World")
```

Computer Science

- Q 1 Explain any five characteristics of Python Language.
- Q 2 What do you mean by Token? Explain.
- Q 3 Explain various operators in Python using examples.
- Q 4 Explain precedence and associativity of various operators in Python.
- Q 5 Differentiate between assignment operator and equal to operator.
- Q 7 What do you mean by literal in Python? Explain.
- Q 8 Evaluate following expressions
1. $100**3$
 2. $100/3$
 3. $100\%3$
 4. $100//3$
 5. `"100+3"`
 6. `"100"*3`
 7. $100+(5**3-7)/4$
 8. $100+(56\%10)//3-6$
 9. $100\%6**3//8+10$
 10. $10>20$
 11. $10==10$
 12. $20<=30$
 13. $40!=40$
 14. $(10>20)$ and $(20>=10)$
 15. $(10!=9)$ or $(10==10)$

Mathematics

Topic : Sets Relation & Functions

To be done in note book.

1. Write $A = \{ x / x \text{ is an integer and } -3 < x < 7 \}$ in roster form.
2. Write $B = \{ 2, 4, 8, 16, 32 \}$ in set builder form.
3. List all elements of the set $A = \{ x/x \text{ is odd natural number} \}$
4. Write any non empty set.
5. Are the following pair of sets equal? Give reasons $A = \{2, 3\}$, $B = \{x / x \text{ is solution of } x^2 + 5x + 6 = 0\}$.
6. How many elements has $P(A)$ if $A = Q$?
7. Write the following as intervals $\{x / x \in R, -42x \leq 6\}$.
8. Let $A = \{ a, b \}$, $B = \{ a, b, c \}$. Is $A \subset B$? What is $A \cup B$?
9. If $A = \{ 1, 2, 3, 4 \}$, $B = \{ 3, 4, 5, 6 \}$. Find $A \cup B$, $A \cap B$, $A - B$, $B - A$.
10. Let $\mu = \{1, 2, 3, 4, 5, 6\}$, $A = \{ 2, 3 \}$, $B = \{ 3, 4, 5 \}$. Find $A', B', A' \cap B'$ and hence show that $(A \cup B)' = A' \cap B'$.
11. In a school there are 20 teachers who teach mathematics or physics: of these, 12 teach mathematics and 4 teach both physics and mathematics. How many teach physics?
12. Show that $A \cup B = A \cap B \Rightarrow A=B$
13. Show that if $A \subset B$ then $C - B \subset C - A$
14. Is it true that for any sets A and B, $P(A) \cup P(B) = P(A \cup B)$? Justify your answer.
15. Using properties of sets, show that $A \cup (A \cap B) = A$ and $A(A \cap B) \cup (A - B)$
16. Let $A = \{1, 2\}$, $B = \{1, 2, 3, 4\}$, $C = \{5, 6\}$. Verify that $A \times (B \cap C) = (A \times B) \cap (A \times C)$.
17. Let $A = \{ 1, 2, 3, \dots, 14 \}$. Define a relation R from A to A by $R = \{ (x, y) / 3x - y = 0, \text{ where } x, y \in A \}$. Write down its domain codomain and range.
18. Write domain and range of function $f(x) = \sqrt{9 - x^2}$
19. If $A \times B = \{ (a, x), (a, y), (b, x), (b, y) \}$. Find A and B.
20. If $A = \{-1, 1\}$, find $A \times A \times A$.