# Bal Bharati PUBLIC SCHOOL
### Sector-21, Noida, G.B. Nagar

# SUMMER HOLIDAY HOMEWORK (2023 – 24)

# CLASS XII

**ACCOUNTANCY**

### Short Answer Questions

1. A firm's profits for the last five years were ₹20,000; ₹30,000; ₹40,000; ₹50,000; and ₹60,000. Calculate the value of firm's goodwill on the basis of three years' purchase of weighted average profits after using weight of 1,2,3,4, and 5 respectively.
   2. A partnership firm earned net profits during the last three years as follows:

   | Year | Net Profit (₹) |
   |------|----------------|
   | 2007-2008 | 1,90,000 |
   | 2008-2009 | 2,20,000 |
   | 2009-2010 | 2,50,000 |

   The capital employed in the firm throughout the above mentioned period has been ₹4,00,000. Having regards to the risk involved, 15% is considered to be a fair return on the capital. The remuneration of all the partners during this period is estimated to be ₹1,00,000 per annum.
   Calculate the value of goodwill on the basis of (i) two years' purchase of super profit earned on average basis during the above mentioned three years and (ii) by capitalization method.

3. Sharma, Verma and Khan were partners in a firm sharing profits and losses in 5:3:2 ratio. They decided to share the future profits equally. For this purpose, the goodwill of the firm was valued at ₹1,20,000. Pass an adjustment entry for the treatment of goodwill due to change in the profit-sharing ratio.

4. Ravi, Shammi, Shashi are partners sharing profits and losses in ratio of 5:3:2. They decided to share future profits and losses in the ratio 2:3:5 with effect from 1$^{st}$ April, 2015. Following items appear in the Balance Sheet as at 31$^{st}$ March, 2014: General Reserve ₹1,50,000 Advertisement Suspense A/c (Dr) ₹1,00,000 Contingencies Reserve ₹50,000 Profit and Loss Account (Dr.) ₹75,000
   Pass necessary Journal entries.

5. Rini and Nikita are in partnership sharing profits in the raio of 2:3. With effect from 1$^{st}$ April, 2012 they agreed to share profits in the ratio of 1:2. For this purpose, the goodwill of the firm is to be valued at ₹6,80,000. The reserves appear in the books at ₹2,20,000. Partners neither want to show the goodwill in the books nor to distribute the reserves. You are required to give effect to the change by passing a single Journal Entry.

### Long Answer Questions

1. Ramesh, Suresh and Dinesh are partners sharing profits and losses in the ratio of 4:3:2., decided to share the future profits and losses in the ratio of 2:3:4 with effect from 1$^{st}$ April, 2015. An extract of their Balance Sheet as at 31$^{st}$ March, 2015 is:

| Liabilities | ₹ | Assets | |
|---|---|---|---|
| Workmen Compensation Reserve | 1,80,000 | | |

Show the accounting treatment under the following alternative cases:

**Case 1.** If there is no other information.

**Case 2.** If a claim on account of workmen compensation is estimated at ₹90,000 **Case 3.** If a claim on account of workmen compensation is estimated at ₹1,98,000 2. X, Y and Z are partners sharing profits equally. They decided that in future Z will get 1/5$^{th}$ share in profits. On the day of change, following is their Balance Sheet:

| Liabilities | | Assets | |
|---|---|---|---|
| Creditors | 1,80,000 | Cash | 6,000 |
| Capital A/cs: | | Debtors | |
| X 12,500 | | 22,500 | 18,500 |
| Y 12,500 | | *Less:* Reserve | 12,500 |
| Z 9,000 | 34,000 | 4,000 | 5,400 |
| | | Stock | 10,000 |
| | 52,400 | Machinery | 52,400 |
| | | Buildings | |

On this date, Buildings have been valued at ₹15,000, stock to be reduced by ₹1,500 and reserve for doubtful debts to be reduced by ₹1,000.

Pass Journal entries in the books of the firm regarding the revaluation of assets. Prepare necessary Ledger Accounts and Balance Sheet.

### **HOTS (Higher Order Thinking Skills)**

1. There is a profit of ₹25,000 on revaluation of assets and liabilities of the partnership firm of Mohit, Kanti and John. As a result of change in profit-sharing ratio, Mohit sacrifices his 3/10$^{th}$ share in favour of John. The partners decided to record the effect of revaluation without affecting the book values of the assets and liabilities by passing a single Journal entry.
   2. Can goodwill be sold separately like other tangible assets?

### **Long Answer Questions**

1. From the following information. Calculate the value of goodwill of a firm of Chander and Gupta:
   a. At 3 years' purchase of average profits,
   b. At 3 years' purchase of super profits,
   i. Average capital employed in the business ₹7,00,000.
   ii. Net trading results of the firm for the past years;
   Profit 2008 - ₹1,47,600;
   Loss 2009-₹1,48,100;
   Profit 2010 - ₹4,48,700.
   iii. Rate of interest expected from capital having regard to the risk involved 18%.
   iv. Remuneration to each partner for his service₹500 per month.

2. A, B and C were partners in a firm sharing profits in the ratio of 2:2:1. Their Balance Sheet as at 31st March, 2015 was as follows:

**Balance Sheet**

As at 31st March, 2015

| Liabilities | | Assets | |
|---|---|---|---|
| Creditors | 30,000 | Land | 85,000 |
| Bills Payable | 20,000 | Buildings | 50,000 |
| Outstanding Expenses | 25,000 | Plants | 1,00,000 |
| General Reserve | 50,000 | Stock | 40,000 |
| Capital A/cs: | | Debtors | 25,000 |
| A 50,000 | | Cash | 5,000 |
| B 60,000 | | | |
| C 70,000 | 1,80,000 | | |
| | 3,05,000 | | 3,05,000 |

From April 1, 2015 the partners decided to share profits in the ratio of 1:2:3. For this purpose, it was agreed that:

a. The goodwill of the firm should be valued at ₹60,000.

b. Land should be revalued at ₹1,00,000. Building should be depreciated by 6%.

c. Creditors amounting to ₹3,000 were not paid. It was decided among the partners that General Reserve has to be distributed among the partners whereas goodwill and revised values of assets and liabilities are not be recorded in the books.

You are required to:

i. Record the necessary journal entries to give effect to the above agreement.

ii. Prepare the capital accounts of the partners.

iii. Prepare the balance sheet of the reconstituted firm.

**Evaluation/Value-based Questions**

1. Karan, Nakul and Asha were partners in a firm sharing profits and losses in equal ratio. On 1st Jan., 2015, they decided to share profits and losses in the ratio of 3:2:1. On that date, there were accumulated losses of ₹15,000 in the firm. Nakul passed the entry in the books of accounts debiting the amount of accumulated losses in the capital accounts of gaining partners only. Was he correct in doing so? Why?

2. Sunil, Barkha and Jyoti were partners in the firm. After the death of Sunil, his son Sanjay was admitted in the partnership for 1/10th share of profit as a minor partner. After completing his education, he undertook the responsibilities of partnership. After 5years, Barkha and Jyoti decided that profits and losses shall be shared equally by all the partners. What value has been fulfilled by Barkha and Jyoti

**PART B**

(**Art Integrated Activity**) 1. Prepare a Mind Map/Chart /Comic Strip on any one topic of the following topics: i. Accounting for Partnership firms: Fundamentals. ii. Goodwill: Nature and Valuation. iii. Change in profit sharing ratio among the existing partners. You can use Scrap file or A-4 size-coloured sheets and coloured pens.

### RESEARCH BASED ACTIVITY - 15 MARKS

**Project Document must comprise:**
- Cover Page with the names of the group along with members
- Index
- Basic Intro/ About the research topic
- How it Works/ What's happening around
- Research Core Area
- Data Visualizations
- Infographics
- Data Privacy Issues
- Inferences/Conclusions
- Citations/References

**Project Topics:**
- Recommendation models - OTT Platforms
- Recommendation models - Food Delivery Giants
- Recommendation models - Shopping Apps
- Script Bots - A chatbot for School
- Sentiment Analysis in Text/Voice
- Big Data - How apps collect data
- ChatGPT - A revolutionary bot
- Autonomous Cars – Future of Transportation
- AI shaking up the Job Market

**Project Details:**
- The project has to be made with collaborative effort of all team members. Each team/group can have 3-4 members.
- The team shall submit the project document hardcopy in the first week of July,2023.
- The students can select any one or more companies or brands to have a focussed research.
- The team shall present their project with the help of presentations and other support materials.

**Valuable links:**
For data visualization and finding correlations
https://codap.concord.org/

For making charts and infographics
https://infograph.venngage.com/

For Data
Kaggle: Your Machine Learning and Data Science Community

I.**WORKSHEET**

**Objective: To develop Reasoning and Analytical Skills**

**Topics: Principles of Inheritance & Variations**
          **Molecular Basis of Inheritance**

Q1. A non-haemophilic couple was informed by their doctor that there is possibility of a haemophilic child being born to them. Draw a checker board and find out the percentage of possibility of such a child among the progeny.

Q2. In a particular plant species, majority of the plants bear purple flowers. Very few plants bear white flowers. No intermediate colours are observed. If you are given a plant bearing purple flowers, how would you ascertain that it is a pure breed for that trait? Explain.

Q3. Inheritance patterns of flower colour in garden pea plant and snap dragon differ. Why is the difference observed? Explain the difference with the help of crosses in their inheritance patterns.

Q4. AaBb was crossed with aabb. What would be the phenotypic ratio of the progeny?

Q5. A true breeding homozygous pea plant with green pods and axial flowers as dominant characters, is crossed with a recessive homozygous pea plant with yellow pods and terminal flowers. Work out the cross up to F2 generation giving the phenotypic ratio of $F_1$ and $F_2$ generation respectively.

Q6. Name one autosomal dominant and one autosomal recessive Mendelian disorder in humans.

Q7. Why is Drosophila ideal for experiments in Genetics?

Q8. The map distance between genes A and B is 3 units, between B and C 10 units and between C and A 7 units. What is the order of the genes on the linkage map?

Q9. A man who is a PTC taster has a non-taster wife. They have a taster son and two non-taster daughters. Give the genotypes of the parents and children and represent them on a pedigree chart. Is this a sex linked character? Explain.

Q10.    Suppose you begin with one molecule of DNA, after 4 replications, how many daughter DNA molecules would have original parental strands?

**II.    Prepare an Investigatory Project on the topics assigned to you in the class.**

**III.    Complete the Biology Practical File.**

**CHAPTER-1 NATURE AND SIGNIFICANCE OF MANAGEMENT**

**1 Marker Questions**
1. Aarna company's target production is 8,000 units in a year. To achieve this target the manager has to operate on double shifts due to power failure most of the time. The manager is able to produce 8000 units but at a higher production cost. In the above case tell the status of the manager.

(a) Manager was effective
(b) Manager was effective but not efficient
(c) Manager was efficient
(d) Manager was efficient but not effective

**2.** The goal of the Radha retail store is to increase sales and the goal of the Spastics Society of India is to impart education to children with special needs. Management unites the efforts of different individuals in the organisation towards achieving these goals. Identify the characteristics of management discussed above.
(a) Management is all pervasive.
(b) Management is multi-dimensional.
(c) Management is a goal oriented process.
(d) Management is a continuous process.

**3**. In a factory, a product is manufactured, in a garment store a customer's need is satisfied and in a hospital a patient is treated. Management translate their work in terms of goals to be achieved and assigns the means to achieve it. Identify the dimension of management discussed here.
(a) Management of operations
(b) Management of work
(c) Management of people
(d) None of these above

**4.** In order to be successful, an organisation must change itself and its goals according to the needs of the environment. Regarding this we have the example of McDonalds, the fast food giant made major changes in its menu to be able to survive in the Indian market. Identify the characteristics of management mentioned in the above case.
(a) Management is an intangible force.
(b) Management is a dynamic function.
(c) Management is a group activity.
(d) Management is a continuous process.

**5**. Jyoti Ltd. decided to give more stress on the following: to use environmental friendly methods of production, to provide employment opportunities to the disadvantaged section of the society and to make available basic amenities like schools and creches to the employees. Identify the objective of management discussed above.
(a) Organisational objective
(b) Personal objective
(c) Social objective
(d) None of the above

**6**. The management of Roshan Pvt. Ltd. helps the staff members adapt to environmental changes so that the organisation is able to maintain its competitive edge. It is one of the reasons that have made management so important. Identify it.

(a) Management helps in achieving group goals.
(b) Management increases efficiency.
(c) Management creates a dynamic organization.
(d) Management helps in achieving personal objectives.

**7. Read the text given below and answer the questions (i-in) based on it.**
Three groups of employees of 'Gama Limited' are working at different posts. The first group of employees is responsible for the welfare and survival of the organisation. In order to discharge its responsibility properly, this group continuously keeps a watch over the Business Environment. With a view to coping with the changes going on in the Business Environment, this group immediately discusses the change to be brought about in the company's plans. The second group of employees is responsible for maintaining quality and safety standards, and minimising
wastages. The responsibility of third group of employees is to explain the policies decided by the top management and developing the feeling of cooperation among all the departments of the company.

**(i) Identify the concept of management described in the paragraph given above:**
(a) Functions of management
(b) Nature of management
(c) Levels of management
(d) Coordination

**(ii) "The first group of employees is responsible for the welfare and survival of the organisation."**
**The above statement is related to which level of management?**
(a) Top Level Management
(b) Lower Level Management
(c) Middle
(d) None of these

**(iii) "The second group of employees is responsible for maintaining quality and safety standards, and minimising wastages."**
**The above statement highlighted the _____ level of management?**
(a) Top
(c) Lower
(b) Middle Level Management
(d) Both (b) and (c)


**(iv) "The responsibility of third group of employees is to explain the policies decided by the top management and developing the feeling of cooperation among all the departments of the company."**
**The above statement explained the functions of the _____**
(a) Lower
(b) Middle
(c) Both (a) and (b)
(d) None of these


**3 Marks Questions**
**8**. Certain persons who had done their MBA established 'Alpha Limited' with the aim of earning justifiable profit and doing service to the society. In order to run their business successfully they took the help of several people. The people working in the company were doing different activities. Their activities were different, but their aim was the same. Here the need was to continue putting in such efforts as may not let the people lose their aim. Therefore, the arrangement made in the company was such that the efforts of all the people may lead them towards the same path.


**(a) Identify the feature of management described in the paragraph given above.**
**(b) Also explain two more features of management.**


**9**. The Principal of 'Shivaji Public School, Shri Rakesh Mohan, set up the goal of 'Quality Education' for his school. For the realisation of this goal he made several plans. His special focus was on the satisfaction of employees. At the end of the year it was found that all his activities were done successfully in accordance with the plans made. It took no time for the people to know the news that the school had accomplished its goal of quality education. Everyone said that it was a miracle performed by the school management.
**(a) Identify the feature of management referred to in the above paragraph.**
**(b) Also explain two more features of management.**


**10**. Mita has a successful ice cream business at Bikaner, namely 'Smartflavours'. Her ice creams are utterly delicious. She makes ice creams from fresh milk and the same are available in a wide range of flavours and packs. She sets viable business objectives and works with the same in mind in order to ensure that the customers will come back for purchasing. Having the first mover advantage, her business was doing well. To earn higher profits, she started cutting costs. This would sometimes

lead to delay in delivery and the ice cream was not reaching the market in time. Over a period of time, the demand for her ice cream declined and because of it the competitors entered the market. She lost some of her market share to competitors. At the beginning of summer season, she got back to back orders for supply of 4,000 ice cream packs of different flavours for special occasions. To ensure that the task was completed and orders delivered in time she hired additional workers. She was, thus able to produce and deliver the ice cream packs but at a high production cost. While completing activities and finishing the given task for achieving goals, Mita realised that she was ignoring one of the important aspects of management. **Identify the aspects of management that has been ignored by Mita. Also explain the same with the help of an example.**


**4 Marker Questions**
**11**. 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 day by day, 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. **Identify and explain the objectives of management discussed above.**


**12**. Mega Ltd. was manufacturing water-heaters. In the first year of its operations, the revenue earned by the company was just sufficient to meet its costs. To increase the revenue, the company analysed the reasons of less revenues. After analysis, the company decided:
(i) to reduce the labour cost by shifting the manufacturing unit to a backward area where labour was available at a very low rate.
(ii) to start manufacturing solar water-heaters and reduce the production of electric water heaters slowly. This will not only help in covering the risks, but also help in meeting other objectives too.
**Identify and explain the objectives of management discussed above.**


**13**. Ashutosh Goenka was working in 'Axe Ltd.', a company manufacturing air purifiers. He found that the profits had started declining from the last six months. Profit has an implication for the survival of the firm, so he analysed the business environment to find out the reasons for this decline.
**(a) Identify the level of management at which Ashutosh Goenka was working.**
**(b) State three other functions being performed by Ashutosh Goenka.**
<u>5 Marker question</u>
14. **Read the following text and answer the questions (i-iv) on the basis of the same:**
Sana 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, ready-mades and household items are made out of traditional Indian fabrics. Sana 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 colour on silk. Although the products looked very attractive and impressive, they were relatively expensive on the front of affordability for an average customer. Sana suggested that they should keep the silk bed covers for special festive occasions and offer the cotton bed covers on a regular basis to keep costs under control.

(i) "She appoints a team of designers and crafts people in the company, who developed some prints for bed covers in bright colour on silk." Which function of management is highlighted in this context?
(a) Controlling
(c) Planning
(b) Staffing
(d) Directing

(ii) In the above case "company's objective is to promote the sales of Indian handloom and handicraft products." The above line focus on which feature of management?
(a) Management is an intangible force.
(c) Management is pervasive in nature.
(b) Management is a goal oriented process.
(d) Management is a continuous process.

(iii) With reference to the above case, at which level of management Sana is working?
(a) Lower level
(c) Middle level
(b) Top level
(d) Shop floor

(iv) "Sana suggested that they should keep the silk bed covers for special festive occasions and
offer the cotton bed covers on a regular basis to keep costs under control."
Which function of management is highlighted in this context?
(a) Controlling
(c) Organising
(b) Staffing
(d) Planning

**6 Marker Question**
**15.** The Top Management of 'Vrinda Limited' has done proper arrangement for all the resources of men, machines, material and money for its business. A special attention has been paid to the running of all the activities properly. Several competitor companies were using imported modern machines. Influenced by them,

this company also had to install similar machines. The Technology of these machines was the most sophisticated. Before the employees could protest against this technology, they were given the training in it. Hence, they accepted the installation of these machines happily. Some of the employees understood this technology very soon. The company felt happy with their work and rewarded them. Its impact on the other employees was also positive. The top management had directed all the employees to have free and informal communication and give suggestions, lodge complaints and even talk about their personal matters.
**Identify and explain the three points of importance of management described in the paragraph above by quoting the relevant lines.**

## CHAPTER-2 PRINCIPLES OF MANAGEMENT

Q.1 In an organisation, each person should be scientifically selected. Then work assigned should suit his physical, mental and intellectual capabilities. To increase efficiency, they should be given the required training. Efficient employees would produce more and earn more. Which of the following principles of management is highlighted above? (Choose the correct alternative)
(a) Science, not rule of thumb
(b) Division of work.
(c) Development of each and every person to his/her greatest efficiency and prosperity.
(d) Remuneration of employees.

Q.2 Match the following:

| | |
|---|---|
| (i) To establish interchange ability of the manufactured parts and products. | (a) Standardisation of work |
| (ii) Classification of workers as efficient and inefficient an the basis of certain standards | (b) Mental revolution |
| (iii) Change in the attitude of workers and management towards one another from competition to cooperation. | (c) Cooperation, not individualism |
| (iv) Equal division of work and responsibility between workers and management | (d) Differential piece rate system. |

(Complete the sentence)
Q.3 Principles of management have been developed on the basis of _____


Q.4 "Individual principles of management are like different tools serving different purposes. The manager has to decide which tool to use under what circumstances."
**State the characteristic of nature of management principles highlighted above.**

Q.5 For greater productivity, work should be divided into small tasks and each employee should be trained to perform his/her specialised job. This principle is applicable to a government office where there is a diary/dispatch clerk whose job is to receive and send mail or documents, a data entry operator whose task is to input data on the computer, a peon and an officer etc. This principle is also applicable to a limited company where there are separate departments like Production, Finance, Marketing and Research and Development (R&D) etc.
(a) Identify and explain the principle of management highlighted in the above para
(b) Identify and state the characteristics of principles of management highlighted in the above para.

Q.6 A production manager at top level in a reputed corporate, Mr. Rathore holds the responsibility for ordering raw material for the firm. While deciding on the supplier for the financial year 2018-19, he gave the order to his cousin at a higher price per unit instead of the firm's usual supplier who was willing to lower the rates for the order.
(a) Which principle of management was violated by Mr. Rathore?
(b) What are the positive impacts of following the above identified principle?

Q.7 Name and explain with a suitable example the technique of Scientific Management given by Taylor to differentiate between the efficient and the inefficient workers.

Q.8 Define principles of management. Explain the principle of 'Scalar Chain' and 'Gang Plank' with the help of diagram.

Q.9 Explain any four points regarding significance of principles of management.

Q.10 H. Tech Ltd. is a company producing IT services. The company's profits are enough for the survival and growth. The management of the company believes that a satisfied employee creates a satisfied customer, who in turn creates profits that lead to satisfied shareholders. So, it pays competitive salaries and perks to all its employees. All the employees are happy working in the organisation because of personal growth and development.
The company has a strong sense of social responsibility. It has set up an engineering college in which one-third of the students are girls to whom the company gives 50% scholarship.Is the management of H. Tech Ltd. fulfilling its objectives? Justify your answer by by quoting the lines from the paragraph.

Q 11. Mr. Sanjeev, a manager, believes that through principles of management do not provide straitjacket solutions to all managerial problems, yet they cannot be underestimated because even a small guideline helps to solve a given problem. Mr. Sanjeev, in dealing with a situation of conflict between two departments, always emphasises the primacy of the overall goals of the organisation above.

(a) Identify and explain the principles of management followed by Mr. Sanjeev.
(b) Identify and state the characteristics of principles of management highlighted above.


Q.12 Discuss the following techniques of Scientific Work Study:
(i) Time Study
(iii) Fatigue Study
(iv) Method Study

# PROJECT WORK

Students are supposed to select one unit out of 3 and are required to make only ONE project from the selected unit. (Consist of one project of 20 marks)
**I. Project One: Elements of Business Environment**
**II. Project Two: Principles of Management**
**III. Project Four: Marketing**


**Details about the project can be found in the following link:-**
**https://cbseacademic.nic.in//web_material/CurriculumMain24/SrSec/BusinessStudies_SrSec_2023-24.pdf**
**And further discussion with the subject teacher.**

Allocation of Marks = 20 Marks

The marks will be allocated under the following heads:

| 1 | Initiative, cooperativeness and participation | 2 Mark |
|---|---|---|
| 2 | Creativity in presentation | 2 Mark |
| 3 | Content, observation and research work | 4 Marks |
| 4 | Analysis of situations | 4 Marks |
| 5 | Viva | 8 Marks |
| | **Total** | **20 Marks** |

**INTERNSHIPS**
1. Students are required to do a brief internship with any organisation and identify the characteristics of management followed there.


## CHEMISTRY

| PROJECT WORK -10 MARKS | | |
|---|---|---|
| S.No. | TOPIC ALLOTED | ROLL NO. XII A &XII B |
| **1** | Effect of Potassium Bisulphate as a food preservative | 1 |
| **2** | Quantity of the presence of casein in different samples of milk | 2 |
| **3** | Extraction of various essential oils present in Ajwain (Carum), Illaichi (Cardamom), and Saunf (Fennel Seeds) | 3 |
| **4** | Paper chromatography | 4 |
| **5** | Nano-gold for Cancer Therapy | 5 |

| | | |
|---|---|---|
| **37** | The Neutralizing Ability of Antacid Tablets | 37 |
| **38** | Dyeing of Wool, Silk, and Cotton in Malachite Green | 38 |
| **39** | Effect Of Sodium Carbonate On the Foaming Capacity Of A Soap | 39 |
| **40** | Extraction of Nicotine Sulphate from Samples of Cigarettes | 40 |
| **41** | Microencapsulation | 41 |
| **42** | Using Zeolites as a Fertilizer | 42 |
| **43** | Popcorn Towers | 43 |
| **44 &45** | Fuel Go Boom | 44 &45 |

## General Guidelines

1.Project should be neat and well-presented and must be hand written will be written on interleaf sheets.

2. Sample project is attached. Same pattern is to be followed.

3. If students wants to perform experiment in laboratory, they need to complete the entire work except the completion of observation table.

4. Relevant pics are to be pasted.

5. Project is to be done on interleaf sheets

6. No whitener to be used, in case of any mistake redo the sheet.

7. All are supposed to adhere to the topic allotted.

## *SAMPLE*

*http://greenparkschool.co.in/greenpark/index.php/blog/chemistry/STERILIZATION%20OF%20WATER%20USING%20BLEACHING%20POWDER.pdfJECT*

## COMPUTER SCIENCE

**Project Investigation Report:**
**\* All the students will visit Any Office/Chemist Shop/Hospital/Library/Movie Booking Counter as per their chosen Project Title and prepare the project investigation report using screen shots, reports, bill copy, receipt copy etc.**

| Q. No | SECTION : A |
|---|---|
| | **This section consists of 25 Questions (1 to 25). Attempt any 20 questions from this section. Choose the best possible option. In case more than desirable number of questions are attempted, ONLY first 20 will be considered for evaluation.** |
| 1. | Which statement will give the output as : True from the following : <br><br> a. >>>not -5    b. >>>not 5    c. >>>not 0    d. >>>not(5-1) |

| 2. | A _____ is a sequence of one or more characters used to provide a name for a given program element. |
|---|---|
| | a.      identifier |
| | b.     variable |
| | c.     string |
| | d.     character |
| 3. | Which of the following commands will sort list1 in descending order? |
| | a.     list1.sort(reverse=0) |
| | b.     list1.sort() |
| | c.     list1.sort(reverse='True') |
| | d.     list1.sort(reverse=1) |
| 4. | What will be the output of the following code segment? |
| |    list1 = [10,20,30,10,40,10] print(list1.remove(10)) |
| | a.     10 |
| | b.     [20,30,40] |
| | c.     None |
| | d.     [] |
| 5. | pop() returns the element whose index is passed as argument to this function and also removes it from the list. If no argument is given, then it returns and removes the _____element of the list.  Fill in the Blank Space. |
| | a.     None |
| | **b.**     first |
| | **c.**     last |
| | **d.**     all |
| 6. | What is printed by the following statements? |
| |    D1 = {"cat":17, "dog":6, "elephant":23, "bear":20} print ("dog" in D1) |
| | a.     True |
| | b.     False |
| | c.     Error |
| | d.     None |
| 7. | Based on the following code answer the questions import _____ |
| | #1 AR=[20,30,40,50,60,70] |
| | FROM=random.randint(1,3) TO=random.randint(2,4) for K in range(FROM,TO+1):     print (AR[K],end="#") |
| | What will be the maximum value of the variables FROM and TO? |
| | a.     3,4 |
| | b.     4,3 |
| | c.     2,4 |
| | d.     4,2 |

| 8. | Ramu write a list program as shown below .based on the code answer the questions data = [[[1, 2], [3, 4]], [[5, 6], [7, 8]]]      #1 def fun(m):
print(m)                 #2
  v = m[0][0]
  print(v)                   #3 for row in m:
   for element in row: if v < element:
            v = element
   return v
print(fun(data[0]))    #4

What will be printed after execution of the line #2 ?

a.      [1,2]
b.      [[1, 2], [3, 4]]
c.      [[5, 6], [7, 8]]
d.      [5,6] |
|---|---|
| 9. | Pick one the following statements to correctly complete the function body in the given code snippet. def f(number):
     # Missing function body

print(f(5))

a.      return "number"
b.      print(number)
c.      print("number")
d.      return number |
| 10. | Which is NOT the possible output of following program from given options:
import random periph = ['Mouse', 'Keyboard', 'Printer','Monitor']  for i in range(random.randint(0,2)):
           print(periph[i],'*',end=" ")

a.      Mouse *Keyboard *
b.      Mouse *
c.      Mouse *Keyboard* Printer*
d.      No output |
| 11. | Which of the following function call can be used to invoke the below function definition?
def calc(p,q,r,s) I. calc(3,4,5,6)
calc (p=1,2,3,5)
calc(3, 4, r=3, s=5)
calc(q=4, p=3,s=5,r=7)

a.      I, III, IV are correct
b.      I, II ,III are correct
c.      I & IV are correct
d.      All are correct |

| 12. | To create an empty dictionary, we use<br>i.D={}<br>i.D=dict()<br>  a.      Both i and ii are True<br>  b.      Only i is True<br>  c.      Only ii is True<br>  d.      Both are False |
|---|---|
| 13. | What will be the output generated by the following snippet?<br>a = [5, 10, 15, 20, 25] k = 1 i = a[1] + 1 j = a[2] +1<br>m = a[k+1] print (i, j, m)<br>  a.      11 15 16<br>  b.      11 16 15<br>  c.      11 15 15<br>  d.      16 11 15 |
| 14. | Functions that do not return any value are known as:<br>  a.      null functions<br>  b.      void functions<br>  c.      library functions<br>  d.      user-defined functions |
| 15. | Which of the following terms is true?<br>  a.      Priority of Global variable is more than that of local variable<br>  b.      Global variable and local variable have the same priority<br>  c.      Priority of Local variable is more than that of Global variable<br>  d.      None of the above is true |
| 16. | The difference between r+ and w+ modes is expressed as?<br>  a.      No difference.<br>  b.      In r+ mode, the pointer is initially placed at the beginning of the file and the pointer is at the end for w+.<br>     c.  In w+ mode, the pointer is initially placed at the beginning of the file and the pointer is at the end for r+.<br>     d.  Depends on the operating system. |
| 17. | The name of the current working directory can be determined using method.<br>  a.      getcwd()<br>  b.      seek()<br>  c.      tell()<br>  d.      open() |
| 18. | If we initialize some value to parameter at function header, it's called _____ of a parameter.<br>  a.      Keyword<br>  b.      Required<br>  c.      Variable length<br>  d.      Default |

| 19. | Which of the following commands can be used to re 8 characters from a text file using the file object F1? |
| --- | --- |
| | a.      F1.read(8) |
| | b.      N = F1.read() |
| | c.      F1.readline(8) |
| | d.      F1.readlines(8) |
| 20. | seek() method in files used for: |
| | a.      sets the file's current position at the offset. |
| | b.      Sets the file's previous position at the offset. |
| | c.      Sets the file's current position within the file. |
| | d.      None of these. |
| 21. | What will be the output of the following code?<br>A="Virtual Reality"<br>print(A.replace('Virtual','Augmented')) |
| | a.      Virtual Augmented |
| | b.      Reality Augmented |
| | c.      Augmented Virtual |
| | d.      Augmented Reality |
| 22. | Select the correct output of the code given below:<br>def study(n):<br>    ans=0<br>    for i in range (1,n):<br>       ans+=i<br>    return ans<br><br>print(study(5)) |
| | a.      10 |
| | b.      5 |
| | c.      Error |
| | d.      None |
| 23. | Predict the Output of the following:<br>def exam(d):<br>  k=""<br>  for i in range(0,len(d)):<br>    if d[i].isupper():<br>      k=k+d[i].lower()+"%$"<br>    elif d[i].isdigit(): |

```
        k=k+d[i]+"@"
    else:
        k=k+d[i].upper()+"#"
return k

res=exam("cbSE22")
print res
```

      (a) CBs$e%$2@2@          (b) c#b#S%$E%$2@2@
      (c) C#B#s%$e%$2@2@          (d) C%B%s#$e#$2@2@

| 24. | In f.seek(12, 2), the second argument '2' represents:<br>    (a) Beginning of File        (b) End of File<br>    (c) Current Position of File     (d) Number of positions to move |
|---|---|
| 25. | Assertion (A): Parameters with default arguments can be followed by parameters with no default argument.<br>Reason (R): Syntactically, it would be impossible for the interpreter to decide which values match which arguments if mixed modes were allowed while providing default arguments.<br>     a.     A is true but R is false.<br>     b.     A is false but R is true.<br> c.     Both A and R are false.<br> d.     Both A and R are true but R is not the correct explanation of A. |
| | **SECTION : B** |
| | **This section consists of 24 Questions (26 to 49). Attempt any 20 questions from this section. Choose the best possible option. In case more than desirable number of questions are attempted, ONLY first 20 will be considered for evaluation.** |
| 26. | Assertion (A) : Keys in a Python dictionary should be<br>unique.  Reason (R) : Only immutable data types can be used as<br>keys.<br><br>a.     A is false but R is true.<br>b.     Both A and R are false.<br>c.     Both A and R are true but R is not the correct explanation of A.<br>d.     Both A and R are true and R is the correct explanation of A. |
| 27. | If a = [5,4,3,2,2,2,1], evaluation of the<br>expression  a [ a [ a [ a [ 2 ] + 1 ] ] ]:<br>a.     3<br>b.     4<br>c.     5<br>d.     2 |

| 28. | Consider the following code and choose correct answer  def nameage(name="kishan", age=20): return age,name t=nameage(20,"kishan") print(t[1]) |
|---|---|
| | a.     kishan |
| | b.     20 |
| | c.     (kishan, 20) |
| | d.     (20,kishan) |
| 29. | Identify the error in the following code:       import pickle       mix_data=['hundred',2, [3,4,5]]       with open ('mixeddata.dat', 'rb') as fout: |

| | pickle.dump(mix_data , fout) |
|---|---|
| | a.     Not any error is there |
| | b.     with open ('mixeddata.dat', 'w') |
| | c.     with open ('mixeddata.dat', 'wb') |
| | d.     None of these |
| 30. | Find the output of the following python program  for i in range(1,15,4):      print(i, end=',') |
| | a.     1,20,3 |
| | b.     2,3,4 |
| | c.     1,5,10,14 |
| | d.     1,5,9,13 |
| 31. | Which of the following can be used to delete      item(s) from a dictionary? a. del statement |
| | b.   get() |
| | b.   getitem() |
| | b.   all of these |

| Ques. | Answer the questions from 28 to 31 based on the case study given below: |
|---|---|
| | Your teacher has given you a method/function FilterWords() in python which read lines from a text file NewsLetter.TXT, and display those words, which are lesser than 4 characters. Your teachers intentionally kept few blanks in between the code and asked you to fill the blanks so that the code will run to find desired result. Do the needful with the following python code.<br><br>```python<br>def FilterWords():<br>c=0<br>    file=open('NewsLetter.TXT', '____')<br>            #Statement-1    line<br>= file.____ #Statement-2<br>word = ____ #Statement-3<br>for c in word:        if ____:<br>#Statement-4<br>        print(c)<br>        file.close() #Statement-5 FilterWords()<br>``` |
| 32 | Write mode of opening the file in statement-1?<br>i. a  ii. ab  iii. w  iv. r |
| 33 | Fill in the blank in statement-2 to read the data from the file.<br>i. File.Read()  ii. file.read()  iii. read.lines( ) iv. readlines( ) |
| 34 | Fill in the blank in statement-3 to read data word by word.<br>i. Line.Split() |
| | iii.Line.split()<br>iv.line.split()<br>iv. split.word() |
| 35 | blank in statement -4, which display the word having lesser than 4 characters.<br>i. len(c) ==4  ii. len(c)<4 iii. len ( )= =3  iv. len ( )==3 |
| 36 | The readline() method returns:<br>a.      str<br>b.      a list of lines<br>c.      a list of single characters<br>d.      a list of integers |
| 37 | Assume tuple_1 = (7,8,9,10,11,12,13) then the output of tuple_1[1:-1]<br>is :<br>a. Error<br>b.  (8,9,10,11,12)<br>   c.  [8,9,10,11,12]<br>   d.  None |
| 38 | Assume air_force = ("f15", "f22a", "f35a"). Which of the following is incorrect ?<br>a. print(air_force[2])<br>b. air_force[2] = 42<br>c. print(max(air_force))<br>d. print(len(air_force)) |

| | |
|---|---|
| 39 | Predict the output of the following code<br>: for i in range(5):    with<br>open("data.txt", "w") as f:<br>if i > 0:        break<br>print(f.closed)<br>a. True                      b. False<br>c. None                    d. Error |
| 40 | What is the data type of (3) ?<br>a. Tuple         b. List         c. None      d. Integer |
| 41 | Find the output of the following code:<br>demo = {1: 'A', 2: 'B', 3: 'C'}<br>del demo[1]<br>demo[1] = 'D'<br>del demo[2]<br>print(len(demo))<br><br>a. 0            b. 2         c. Error     d. 1 |
| 42 | Guess the output of the following<br>code. grades = {90: "S", 80: "A"}  del<br>grades<br><br>a. Method del doesn't exist for the dictionary.<br>b. del deletes the values in the dictionary.<br>c. del deletes the entire dictionary.<br>d. del deletes the keys in the dictionary. |
| 43 | Which of the following cannot be used as a key in Python dictionaries?<br>a. Strings        b. Lists        c. Tuples    d. Numerical<br>values |
| 44 | Given below a program to found the occurrence of word "To" in a file notes.txt.<br>Which function should be used to read the file word by word ? count=0<br>file1=open("notes.txt","r")<br>s=file1.read()<br>s1=_____ for i in<br>s1: if(i==ch):<br>count+=1<br>print(ch," word exists ", count, " number of times")<br>a. s.read(10)        b. s. split()    c. s.index( )    d. s.readline() |
| 45 | Write the output of the following<br>print((range(5)))<br>    a.  range(0, 5)<br>b.     0, 1, 2, 3, 4<br>c.     [0, 1, 2, 3, 4]<br>d.     None |
| 46 | What will be the output of the following code?<br>print(min("Hell","Hello","he"))<br>a) Hell            b) he         c) Hello       d) Error |

| 47 | Observe the code carefully and write answer of questions given below: a=10  b=12  def change(): |
|---|---|
| |     a=9 |
| | global b |
| | b=7 |
| | print(a,b) |
| | y=b |
| | change()  x=a  z=b what is the output of |
| | the above program? |
| | |
| | a) 9 7                b) 10 7              c) 10 12          d) None of the above |
| 48 | If return statement is not used inside the function, the function will return : |
| | a) 0             b) None object        c) An arbitrary integer    d) error |
| 49 | Which function header statement is correct: |
| | a.      def interest (prin, time=2, rate): |
| | b.      def interest (prin=2000, time=2, rate): |
| | c.      def interest (prin=2000, time=2, rate) |
| | d.      def interest (prin, time=2, rate=0.10): |
| | <div align="center">SECTION C<br>**Case Study based Questions**</div> |
| | **This section consists of 6 Questions (50 -55) Attempt any five questions. In case more than desirable number of questions are attempted, ONLY first 5 will be considered for evaluation.** |

Student of class 12 named Tarun, is working on Binary File Module in Python. He wants to create copy of "student.dat" binary file named as "duplicate.dat". He has missed some logics and hence the code remained incomplete. Help him to complete the code So that he can do desired task.

```
........................................          # Statement-1
def fileCopy():     ifile = .....................
# Statement-2       ofile =....................
# Statement-3       try:           while True:
                                rec=pickle.load(ifile)
                    ...................            # Statement-4
except EOFError:
    ifile.close()
    ofile.close()
    print("Copied Successfully")


def display1():    ifile =
open("student.dat","rb")
print("----Records of  student.dat file---")
try:     while True:
rec=pickle.load(ifile)                                print(rec)
except EOFError:
    ifile.close()


def display2():
        ofile = open("duplicate.dat","rb")
print("----Records of Duplicate file---")
try:      while True:
        rec=.............................    #
Statement-5           print(rec)      except
EOFError:        ofile.close()
........................            # Statement-6
 display1()
 display2()
```

| 50 | Which module is required to import at "Statement-1" for successful execution of the code given in the program? |
|---|---|
|  | a.       import csv |
|  | b.       import binary |
|  | c.       import pickle |
|  | d.       import text |
| 51 | Identify the missing code for blank space in line marked as Statement-2. Here he wants to open the "student.dat" file. |
|  | a.       open("student.dat","ab") |
|  | b.       open("student.dat","rb") |
|  | c.       open("student.dat","wb") |
|  | d.       None of Above |

| 52 | Identify the missing code for blank space in line marked as Statement-3. Here he wants to open the "duplicate.dat" file. |
|----|---|
| | a.    open("duplicate.dat","wb") |
| | b.    open("duplicate.dat","r+b") |
| | c.    open("duplicate.dat","rb") |
| |    d. None of Above |
| 53 | Write the missing code for the statement-4 where the duplicate.dat file should be update with new record which was read from student.dat file. |
| | a.    pickle.dump(rec,ofile) |
| | b.    pickle.load(ofile) |
| | c.    pickle.dump(rec,ifile) |
| | d.    pickle.load(rec,ifile) |
| 54 | He wants to read the records of the duplicate.dat file. Complete the missing statement for Statement-5 |
| | a.    pickle.load("duplicate.dat") |
| | b.    pickle.read("duplicate.dat") |
| | c.    pickle.read(ofile) |
| | d.    pickle.load(ofile) |
| 55 | Write the exact function call at missing Statement-6. So that duplicate file can create and update successfully. |
| | a.    display1() |
| | b.    display2() |
| | c.    fileCopy() |
| | d.    All of Above |

**Very Short Answer Type Questions (1-Mark)**

1a) What is default parameter?

b) Can a function return multiple values in python?

2 a) Give example of positional parameter.

b) Carefully observe the code and give the output:

```
def example(a):
    a = a + '2'
    a = a*2
    return a
example("hello")
```

3 a) What is the output of the following program:

```
def myfunc(a):
    a = a + 2
    a = a * 2
    return a
print(myfunc(2))
```

b) Find and write the output of the following python code:

26

```
x = "abcdef"
i = "a"
 while i in x:
     print(i, end = " ")
```
the output is aaaaaa OR infinite loop. Give reason, why and how ?

4 a) Find and write the output of the following python code:
```
 a=10
def call():
     global a
     a=15
     b=20
     print(a)
call()
```
b) From the program code given below, identify the parts mentioned below:
```
 def num(x):
      x=50
      return x+3
 y=55
res=num(y)
```
Identify these parts: function header, function call, arguments, parameters, function body, main program .

c) Trace the flow of execution for the following program:
```
 def increment(x):
      x=x+1
.#main
 x=3
print(x)
 increment(x)
print(x)
```
d)What is the different between the formal parameters and actual parameters .

e) Predict the output of the following code
```
  def codo(n):
     if n == 0:
            print("Finally")
     else :
            print(n)
 codo(n-3)
codo(15)
```

### Short Answer Type Questions (2-Mark)

1.a) What possible outputs are expected to be displayed on the screen at the time of execution of the program from the following code? Also specify the minimum and maximum values that can be assigned to the variable c.
```
import random
temp=[10,20,30,40,50,60]
c=random.randint(0,4)
     for i in range(0, c):
            print(temp[i],"#")
```
(i)10#20#         (ii) 10#20#30#40#50#         (iii) 10#20#30#         (iv) 50#60#

b) Find and write the output of the following python code:

```python
def Alter(x,y=20):
    x=x*y
    y=x%y
    print (x,'*',y)
    return (x)
a=200
b=30
a=Alter(a,b)
print (a,'$',b)
b=Alter(b)
print (a,'$', b)
a=Alter(a)
print (a,'$',b)
```

2a) Rewrite the correct code after removing the errors: -
```python
def SI(p,t=2,r):
return (p*r*t)/100
```
b) What are the possible outcome(s) executed from the following code? Also specify the maximum and minimum values that can be assigned to variable N.
```python
import random
NAV = ["LEFT","FRONT","RIGHT","BACK"]
NUM = random.randint(1,3)
NAVG = ""
    for C in range(NUM,1,-1):
    NAVG = NAVG + NAV[C]
print(NAVG)
```

3 a)What output will be generated when the following Python code is executed?
```python
def ChangeList():
    L=[]
    L1=[]
    L2=[]
    for i in range(1,10):
        L.append(i)
    for i in range(10,1,-2):
        L1.append(i)
    for i in range(len(L1)):
        L2.append(L1[i]+L[i])
    L2.append(len(L)-len(L1))
    print L2
ChangeList()
```
b) Rewrite the following Python program after removing all the syntactical errors (if any), underlining each correction.:
```python
def checkval:
x = input("Enter a number")
if x % 2 = 0:
print x,"is even"
else if x<0:
print x,"should be positive"
else;
print x,"is odd"
```

4a) Observe the following Python code very carefully and rewrite it after removing all syntactical errors with each correction underlined.

```
DEF execmain ():
x=input ("Enter a number :")
if (abs(x)=x):
print  ("You entered a positive number")
else:
x=*-1
print "Number made positive:" xexecmain()
```

b) Find the output of the following Python program:

```
def makenew(mystr):
     newstr = ""
     count = 0
     for i in mystr:
        if count%2 != 0:
            newstr = newstr + str(count)
       else:
            if  i.islower():
                    newstr = newstr + i.upper()
            else:
                    newstr = newstr + i
            count += 1
            newstr = newstr + mystr[:1]
print("The new string is:", newstr)
makenew("sTUdeNT")
```

5 a) Consider the following function headers. Identify the correct statement: -
     1) def correct(a=1,b=2,c):                          2) def correct(a=1,b,c=3):
     3) def correct(a=1,b=2,c=3):            4) def correct(a=1,b,c):

b) What will be the output of the following code?

```
a=1
def f():
     a=10
     print(a)
```

c) Carefully observe the following Python code and answer the questions that follow:

```
global x
x=5
def fun2():
     x=3
     print(x)
x=x+1u
print(x)
fun2()
```

 On execution, the above code produces the following output:

6
3     Explain the output with respect to the scope of the variables.


6 a)Write a program using user defined function to :
i.Calculate and display average of all the elements in a user defined list containing numbers.

ii. Write a python function that takes two numbers and print the smaller number. Also write how to call this function.

b) Explain two types of variable scope with example.

c) Write a note on Non- Void Function and Void Function.

Application Based Questions/Programs(3 marks each)

1a )Write a function mul ( ) which accepts list L, odd_L, even_L as its parameters. Transfer all even values of list L to even_L and all odd values of L to odd_L.

eg. If L = [10, 22, 24, 36, 37, 43, 51]

odd_L = [ 37, 43,51]

and even_L = [ 10, 22, 24, 26 ]

b) Write definition of a method EvenSum(NUMBERS) to add those values in the list of NUMBERS, which are odd.

2 a) Write a python program to sum the sequence given below. Take the input *n* from the user.

b) Write a program to compute GCD and LCM of two numbers

3a) How many values a python function can return? Explain how?

b)  Find the output of the following code: -

c) Predict the output of the following code fragment:

```
def check(n1=1, n2=2):
    n1=n1+n2
    n2+=1
    print(n1,n2)
check()
check(2,1)
check(3)
```

## DATA FILE HANDLING

1. What is a file?
2. Why do we need files?
3. What are two main categories of file types?
4. What is the difference between a text file and a binary file?
5. What are the two basic operations which are performed on a file?
6. What is a file buffer?
7. How can a file be opened in a Python program?
8. What are different file opening modes for a text file in Python? Write, in brief, what does each mode do?
9. Differentiate between 'write' mode and 'append' modes of files in Python.
10. What different functions are available to write data in a text file? Describe each in brief.
11. What different functions are available to write read data from a text file? Describe each in brief.
12. Why is it important to close a file?
13. In which mode should a file be opened:
    (i) To write data into an existing file.
    (ii) To read data from a file
    (iii) To create a new file and write data into it.
    (iv) To write data into an existing file.

If the file does not exist, then file should be created to write data into it.
14. Differentiate between seek() and tell().
15. What is the difference between a binary file and a text file?
16. Write following programs :
- Program to Count number of lines in a text file.
- Program to Count number of vowels in a text file.
- Program to Count the number of 'is' word in a text file.

## ECONOMICS

## NATIONAL INCOME /MONEY AND BANKING

## I.MACRO ECONOMICS

Q1. Define consumption goods. (1)

Q2. Foreign embassies in India are a part of India's: (Choose the correct alternative) (1)
(a) Economic Territory           (b) Geographical territory
(c) Both (a) and (b)             (d) None of the above

Q3. Supply of money refers to quantity of money _____ (Choose the correct alternative) (1)
(a) As on $31^{st}$ March            (b) During any specified period of time
(c) As on any point of time      (d) During a fiscal year

Q4. Demand deposits include _____ (Choose the correct alternative) (1)
(a) Saving account deposits and fixed deposits
(b) Saving account deposits and current account deposits
(c) Current account deposits and fixed deposits
(d) All types of deposits

Q5. Market Price and factor cost will be equal when there is: (1)
(a) No direct tax                 (b) No Indirect tax
(c) No Subsidy                    (d) No Indirect tax and No subsidy

Q6. State, giving reasons, whether the following statements are true or false: (3)
(a) Currency created by the Central Bank is called bank money.
(b) Higher the Legal Reserve Ratio (LRR), greater would be the money creation in the economy.
(c) Money supply is a stock variable

Q7. Giving reasons classify the following into stocks and flows: (3)
(a) Wealth                        (b) Savings
(c) Gross Domestic Product

Q8. Discuss briefly, the circular flow of income in a two sector economy with the help of a suitable diagram. (3)

Q9. How will you treat the following in the calculation of Gross Domestic Product of India? Give reasons for your answer. (3)
(a) Profits earned by a branch of foreign bank in India
(b) Salaries of Indian Employees working in embassy of Japan in India

(c) Salary of resident of Japan working in Indian embassy in Japan.

Q10. Calculate (a) Net Value added at factor cost and (b) Value of output at market price from the following data. (3)

| | (Rs. in arab) |
|---|---|
| i. Subsidies | 40 |
| ii. Intermediate costs | 200 |
| iii. Compensation of employees | 400 |
| iv. Depreciation | 50 |
| v. Royalty | 5 |
| vi. Interest | 25 |
| vii. Indirect Taxes | 100 |
| viii. Rent | 10 |
| ix. Profits | 60 |
| x. Net Change in stocks | 20 |

Q11. Explain the 'varying reserve requirements' method of credit control by the central bank. (4)

OR

Explain the role of Reverse Repo Rate in increasing money supply.

Q12. 'GDP as an index of welfare may understate or overstate welfare'. Explain the statement using examples of a positive and a negative externality. (4)

OR

Differentiate between National Income at Current prices and National Income at Constant Price. Which of the two presents a better view of the economic growth of economy and why?

Q13. Government provides essential items of food grains almost free to the families below the poverty line. Which objective the government is trying to fulfil through the government budget and how? Explain.

Q14. From the following data relating to a firm (6)
(a) Estimate the net value added at market prices
(b) Show that net value added at factor cost is equal to the sum of factor incomes.

| | (Rs. in Lakh) |
|---|---|
| i. Purchase of raw materials and other inputs from the domestic market | 600 |
| ii. Increase in stocks | 200 |
| iii. Domestic sales | 1800 |
| iv. Imports of raw materials | 100 |
| v. Exports | 200 |
| vi. Depreciation | 75 |
| vii. Salaries and wages | 600 |
| viii. Interest Payments | 450 |
| ix. Rent | 75 |
| x. Dividends | 150 |
| xi. Undistributed Profits | 80 |

| xii. Corporate Profit Tax | 20 |
|---|---|
| xiii. Indirect Taxes | 50 |

Q15. State giving reasons whether the following will be included in national income: (6)
(i) Growing vegetables in a kitchen garden of the house/services rendered by family members to each other.
(ii) Production of tobacco products, liquor, etc.
(iii) Harmful effects of air pollution caused by factories or vehicles.

Q16. Using a numerical example elaborate the credit creation process as handled by the commercial banks. (6)

## II.   PROJECT

Topic can be chosen from any area related to economics preferably from Indian Economy. This project will be submitted for Class XII board exam practical examination.

The expectations of the project work are that:
  learners will complete only ONE project in each academic session
  project should be of 3,500-4,000 words (excluding diagrams & graphs), preferably hand-written
  it will be an independent, self-directed piece of study

### Scope of the project:
Learners may work upon the following lines as a suggested flow chart:
Choose a title/topic Collection of the research material/data
Organization of material/data Present material/data
Analysing the material/data for conclusion
Draw the relevant conclusion Presentation of the Project Work.

## III.   INTERNSHIP

All students must try to enrol themselves for an internship which will engage them productively during the summer holidays. The internship can be done in any corporate office/ shop/NGO which will allow the student to observe the management and financial aspects of the organisation.
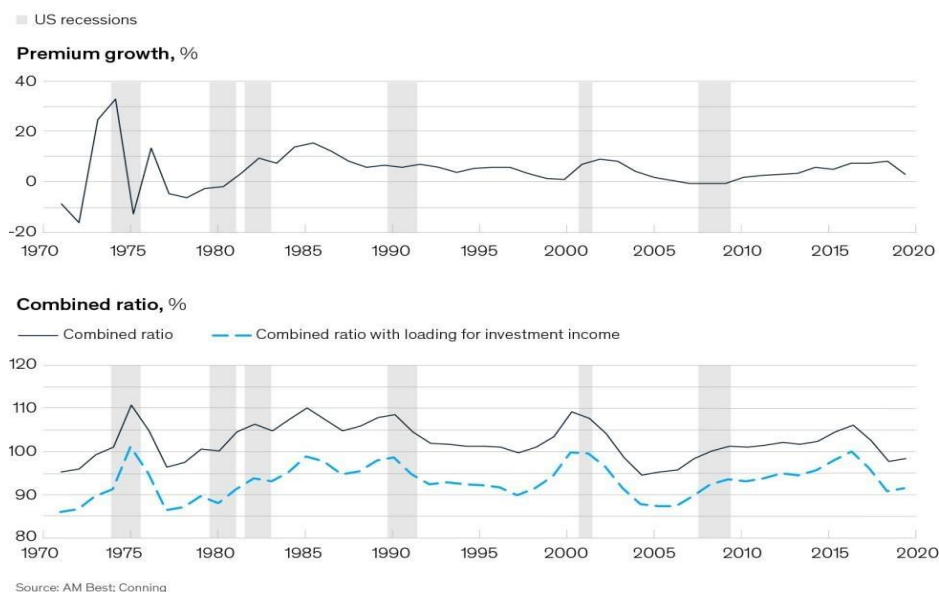
## ENGLISH

Q.1. Read the passage given below:

Since its creation in the 17$^{th}$ Century, insurers have amassed polices in each class of risk they cover. Thanks to technology, insurers now have access to more information about the risks that individuals run. Car insurers have begun to set premiums based on how actual drivers behave, with "telematic" tracking devices to show how often they speed or slam on the brakes. Analysts at Morgan Stanley, a bank, predict that damage to insured homes will fall by 40-60% if smart sensors are installed to monitor, say, frayed electrical wiring. Some health insures provide digital fitness- bands to track policy holder's vital signs – and give discounts if they lead a healthier life. But the data can only go so far. Even the safest driver can be hit by a falling tree: people in connected homes still fall off ladders. But the potential gains from smart insurance

are large. First, giving people better insights into how they are managing risk should help them change their behaviour for the better. Progressive, an American car insurer, tells customers who use its trackers where they tend to drive unsafely; they crash less often as a result. Second, pricing will become keener for consumers. The insurance industry made $338 billion in profits last year. More accurate risk assessment should result in lower premiums for many policyholders. Third, insurers should be able to spot fraud more easily, by using data to verify claims.

**Over the past 50 years, the US personal auto insurance market has not generally correlated to the economy.**

US recessions

**Premium growth,** %

**Combined ratio,** %
—— Combined ratio  — — Combined ratio with loading for investment income
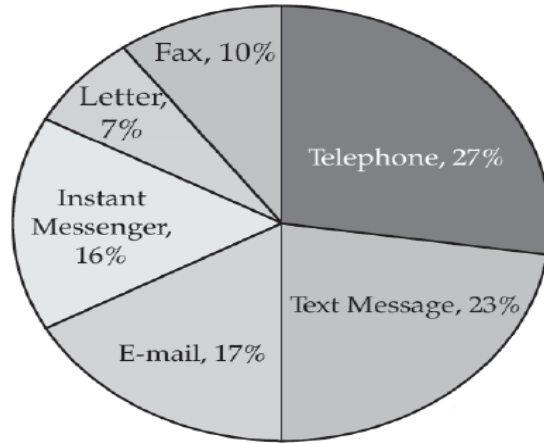
Source: AM Best; Conning

McKinsey
& Company

But two worries stand out. One is a fear that insures will go from being with to ones that watch your every move. The other, thornier problem is that insures will cherry pick the good risks, leaving some people without safety net or to be taken care of by the state. Forgone privacy is the price the insured pay receiving personalised pricing. Many people are indeed willing to share the data, but individuals should always have to opt in to do so. Some worry that this safeguard may not be enough: the financial costs of not sharing data may be so great that people have no real choice over whether to sign up. The second concern is the worry that more precise underwriting will create a class of uninsurable people, selected out of insurers businesses because they are too high a risk.

1. Which of the following will be said about the insurance industry?
a.     It is not well regulated in Europe and America
b.     It is plagued by frauds on the part of the policy holders, who manipulate data.
c.     It faces challenges about the use of personal data.
d.     It requires bailouts from the government.

2.    The insurers got their inception in the
a.     16th century

b.      17ᵗʰ Century
  c.  1870
  d. 1902

3.      Which of the following is/ are outcome(s) of smart insurance?
A.      Create awareness about one's behaviour
B.      Infringes on a policy holder's privacy
C.      Discriminates among consumers based on their behaviour
a.      Only C
b.      Only B & C
c.      Only A & B
d.      All - A , B & C

4.      The graph of personal auto insurance market has got its peak of premium growth and combined ratio in the year?
  a.  2020
  b.  2015
  c.  1975
  d.  2000

5.      Which of the following is the central idea of the passage?
a.      Today, customers have plenty of innovative insurance products to choose from.
b.      Insurance companies access to and use of personal data is both promoting and risky.
c.      Of all the insurance products health insurance is the most innovative and controversial.
d.  Using genetic data to access a customer's insurance premium is immoral.

6.      Which of the following is true in the context of the passage?
a.      Technology has made it easier to commit insurance fraud.
b.      Insurance has been around for less than a century
c.      The American insurance industry is the largest in the world.
d.      None of the given statements is true in the context of the passage.

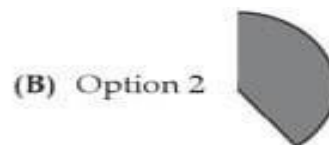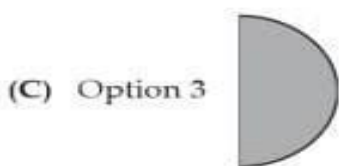Q 2. **Read the passage given below:**

 1. A survey was conducted on student preferences with respect to the most popular means of communication among them. Surprisingly, the students didn't seem much interested in traditional means of communication. Only 7% were interested in writing letters to their friends or kins as compared to those who preferred e-mails.

2. However, the chief competition is between users of Instant Messenger and those of telephone lines. The users of fax line as a medium of communication are only marginal. There are supporters of text messaging also. Overall, the survey had a mixed response from the students.

3. The students have indicated that they out of the choices given in the survey questionnaire, they have indicated the most preferred option. But, most of the students are of the view that video calling needs to be mentioned in the questionnaire as it is the most effective and most popular means of communication. Further, voice messages are the second most preferred means of communication.

**Based on your understanding of the above passage, answer ANY SIX out of the seven questions given below by choosing the most appropriate option:**

1. Which means of communication is liked by more than one-fourth of the students?

   (a) telephone        (b) text message        (c) e-mail        (d) fax

2.. Which means of communication is liked by exactly one-tenth of the students?

   (a) letter        (b) fax        (c) e-mail        (d) text message

3. How much of the students prefer either of telephones or text messages as medium of communication?



**(A)** Option 1        **(B)** Option 2

**(C)** Option 3        **(D)** Option 4

4. What is the overall response of the students to the survey?

   (a) biased        (b) unbiased        (c) mixed        (c) none of these

5. What is the correct order of the medium of communication in decreasing order of preference?

   (a) voice message, text message, instant messenger, fax

   (b) text message, instant messenger, voice message, fax

  (c) instant messenger, fax, voice message, text message

  (d) text message, instant messenger, fax, voice message

6. Pick out the word or phrase from the passage which means the same as 'study' (used in para 1).

(a) survey　　　　　(b) popular　　　　　(c) communication　　　　　(d) kins

7. Pick out the word or phrase from the passage which means opposite to 'gradual' (used in para 2).

   (a) chief　　　　　(b) instant　　　　　(c) marginal　　　　　(d) mixed

Q3. Writing skills -:

a.　　　Bali High Public School has recently created 'CURE GREEN' a dedicated area for local medicinal herbs and shrubs adjacent to the flower garden of the Lotus Panache Society.  As Rachel Jones, President R.W.A., draft a NOTICE informing residents about a guided walk inviting care givers for the eco friendly drive.　　　　　　　　　　　(50 words)

b.　You are the Secretary of the N.G.O.  Niveda.  Your organization is planning to begin with the Watch Guard system.  Draft a NOTICE requesting the patrons to suggest / hire guards for the N.G.O.  Mention the qualifications and abilities of the candidate.  Also include the need of security cameras in the premises.

Q4.a) You  are the Sports Captain of Vivekananda High School.  Create an INVITATION for the students, parents and staff of your school to participate in the International Yoga Day to be held in your school.

b)　Smt. Leelavati Khatri, your grandmother has received an invitation from her childhood friend residing at a distance in the same city. The invite is for the blessing ceremony and celebration dinner marking the birth of her granddaughter.  Your grandmother wishes to attend the event.  Write an appropriate reply, accepting the invitation on behalf of your grandmother.

Q5a) Your friend is throwing a party to celebrate his success in board exams.  Send a reply regretting your ability to attend the same due to prior engagement.

   b) You are Mr Vohra. Write a reply of refusal, regretting your inability to attend the celebrations of 25ᵗʰ anniversary of Mrs and Mr Sharma due to some prior engagement.

Q6a) You are Damanjit Singh, a fresh graduate of film-making (BFA), from JTTI, Chandigarh. You saw the given advertisement in the newspaper and wish to apply for the position advertised. Write a letter to Mili Johar Arts, along with your bio-data, expressing your interest in the advertised post.

Mili Johar ARTS

**ASSISTANT DIRECTORS wanted**

**For Feature Film**
Opportunity for aspiring Assistant Directors

**WHO DO WE NEED?**
**Freshers. Experienced , both welcome**

REQUIRED -Degree/ Diploma in Film Making

**Skills :** Camera handling, functional knowledge of Marathi, exceptional communication skills and ability to multi-task

Please send your resumes to- The Johar House, Offices 05-06, Diyali Hill, Mumbai (latest by 23 July 2023)

b)    You are Krishna/Kishan from F-9 Mayur Vihar, Delhi. You have come across an advertisement in a national daily for recruitment of Radio Jockey by Radio One, Noida. Apply in response to this advertisement giving your detailed bio-data.

LITERATURE –

Lesson covered :                                                                                      Flamingo –
    Poem:  (i) My Mother at Sixty Six                                              (ii) Keeping
    Quiet

        Prose :  (i) Last Lesson
        (ii) Lost Spring
        (iii) Deep Water

Vistas – Prose (i) Third Level                                                        (ii)   Tiger
    King

Q 7a)  Answer the following questions in about 30 to 40 words each

…. and realized with pain
that she was as old as
looked but soon
put the thought away and
looked out at Young
Trees sprinting, the merry children spilling
out of their homes, but after the airports,
security, check  standing a few yards away

  i)   What pain is being felt by the poet?
  ii)  Which thought did she put away?
  iii) What do young trees and merry children signify?
  iv) Did 'looking out' help the poet?
  v)  Mention the poetic device used in line no. 7 and explain the following expression

    b)      Answer the following questions in about 30 to 40 words each?

      1.   What do you think is the pain and the ache that the poetess feels?
      2.  How has the poet compared the scene inside with that of outside the car?
      3.  Why does the poet smile and what does she say while bidding goodbye to her mother?

  Q8a)  Perhaps the Earth can teach us
         as and when everything seems dead
         and later proves to be alive
         Now I'll count up to twelve
         and you keep quiet and I will go

      i)   What should the man learn from earth?
      ii)  When does nature seem to come alive?
      iii) What feelings does the poet express in this stanza?
      iv) How does Earth continue its journey?

    b)      Answer the following questions in about 30-40 words each?

      i) Why does the poet want everyone to keep quiet and count upto twelve?
      ii)  What change does the poet expect on the face of the Earth?
      iii) In what ways does man cause harm to mankind and Nature?
      iv) How can a few moments of introspection affect our lives?
b                                                     Q9a)
       Answer the following questions in 30-40 words each:-

   i.Who occupied the back benches in the class room on the day of the last lesson?
        ii.What is the contrast between the scene inside the car and outside it? (My Mother at Sixty Six)
        iii.How did the King of Pratibandhapuram get the name 'Tiger King'?

    b)      Write the character sketch of M. Hamel.  Explain in about 120-150 words.

    Q10a) Answer the following questions in 30-40 words each:-

       i.Why cant' the banglemarkers organize themselves in groups?

ii.Why does the poet sympathise with the slum children?

iii.Describe the living conditions at Seemapuri.

b)      Write the following question in about 120-150 words.
Justify the title of the lesson 'Lost Spring'.

Q11.    Short answer questions:-

a.      Why did the Maharaja's tiger killing mission come to a sudden halt?
b.      How did the king's hand become seriously infected?
c.      What predictions did the astrologers make at the birth of the Tiger King?
d.      How was Maharaja able to save his kingdom?

Q12a) What are first day covers? (Third Level)

 b) What did Sam write to Charlie?

 c) "Charlie was anxious and nervous – He thus wanted to live in the past". Elucidate the above sentence with reference to the lesson Third Level.

**PROJECT:**

Students need to complete **ANY TWO** Projects with reference to the lessons.
a.      Visit to an Old Age Home – Take interviews and present it through a PPT
b.      Visit an N.G.O. – render community service through training children with computer skills.  To present a video of the project in class  .
c.      Visiting an upcoming/ established entrepreneur and gaining 'in-hand experience' Preparing a Project report highlighting the learning outcomes.  A tete-e-tete is to be presented in the class.
d.      Visiting an astrologer and taking an interview  on the importance of predictions and its effects.
e.      Rendering service in eateries like Mc Donalds, KFC, Dominos and learning the procedures, billing and customer care of the above.
f.      Keeping in mind the growing importance of subjects  like legal studies, students can spend a week with a leading legal practitioner and learn the proceedings of a case.
To prepare a video based on a case highlighting the points of a petitioner.
g.  With reference to the lesson Deep Water, students can take an interview of a coach and a famous alumni player and prepare a video on it.
g.  'Grany's  Talk' – students to visit their grandparents and help them remember about their past, their long lost homelands and how they coped to the new country after partition.  Students to refer to the age old songs, homemade recipes as told by their grandparents and prepare a project on the above 'Granny's Talk' issue . (Ref. Last Lesson)
g.  Students to visit a psychologist or a psychiatrist and prepare a case based project on the recent modern day issues and the problems that the youth is facing today.

g. Students can also join the Delhi Government Summer Workshop "Masti Ki Pathshala" and prepare a report on their experiences and later teach the same to the fellow students.

### INSTRUCTIONS

- Projects to be submitted in an A4 size folder.
- Project work must be written, recorded and presented through a PPT in class for assessment of speaking and initiative skills.
- Project work must be presented in a hard copy with the following points

a) Cover page
b) Content
c) Pictures
d) Learning outcomes
e) Pictures/ photos
f) Must mention the link

## ENTREPRENEURSHIP

### General instructions:
i. The assignment is divided into two parts.
ii. Part A contains a set of questions to be attempted in the business studies class register.
iii. Part B has to be done in a project file.

### PART A

# Application Based Questions

1. Since her college days mehak loved the thrill of adventure sports. She was an avid reader which helped her to keep track of various new adventure sports taken up all around the world. She had recently read an article on increasing trend towards 'space tourism and adventurous holidays'. Using her personal experiences and her passion for adventure sports she decided to start a company called 'YOLO' For the same purpose she also decided to collect statistics to see how much of these sports were accepted in our country. ldentify the ways in which she was able to spot the trend.

2. Shahida, a student of School of Rug Weaving Institute, Turkey, visited her grandparents in Kashmir for the first time. Breathtaking mountain scenery, clear lakes, lush vegetation and magnificent forests mesmerized her. The valley is home to a rich biodiversity including a large number of bird species, many of which are unique to Kashmir. It is home to Yak and sheep that are taken care of by nomads. Kashmiri lifestyle is essentially slow paced and reflects religious diversity. Kashmiris are known to enjoy their music in its various local forms, and the traditional dress of both genders is often quite colorful. Tulip, Saffron, dry fruits and artistic woodwork are its hallmark.

   She also observed that the government was stable and all the tourist places were well guarded by the army.

   She found it to be an ideal place to start a unit for carpet weaving and employ local people to preserve the ethnic touch. After the devastating floods a considerable population was rendered jobless, her unit would help to revive their economic

condition. She started scanning and screening the  environment and collected the following information.

A. Help her categorize the information making use of PESTEL  MODEL.(Any three)

B. Also state a value communicated bv Shahida.

3. Bunty, a fitness freak NRI, had done his masters in nutritional sciences from  U.K., during his vacations, he was disappointed to see that no Gymnasium in Delhi had a workout module to suit his requirement. Anyhow, Fitness Fine  Gymnasium of his friend offered him freedom to exercise the way be  wanted. In short time, Bunty became popular amongst the other members  because of his knowledge, experience, competency, tactics and tips on  exercising.

He now explored deeply his curiosity of starting a Gymnasium in Greater  Kailash 2, having a fusion of both diet and exercise under one roof. He  conducted a market research and subconsciously assimilated a whole data  bank of information pertaining to lifestyle, interests, etc. of people in and  around the area. He approached his father for financial help of ₹ 25 lacs as  he had ₹ 20 lacs only. The ground floor of his flat was to be converted into  a Gymnasium. He started networking and negotiating with the  manufacturers who could provide him with customized machines of his  choice.

"One of the first task demanded of an entrepreneur is to manifest creative  ability through the conceiving of new product-market propositions" - Identify and explain the steps involved in this process being initiated by  Bunty.

4. Hina, was manufacturing beauty products and was always on the lookout to  improvise her products. She used social mediaand online surveysto  understand the latest trend in customer needs and overall in the cosmetics  industry. . Through the surveys, she understood that the customers prefer  natural ingredients like multani mitti or neem in place of chemicals in the  beauty products.

Responding to the customers' needs, she developed a 'Multani Mitti cum neem face pack' in an attractive package. It was highly priced as  she knew that the customers will be ready to pay the price for the  quality. Her face pack was an instant success. Identify the 'Way' in  which Hina spotted this trend.

5. Hema    Enterprises    is    dealing    in    Health    Drinks.    The    enterprise    has been  manufacturing'Mother's Choice' a malt based health drink. Adapting to the  latest market trends she decided to bring out an improved form of fortified  health drink with vitamin B-12, iron and minerals to increase immunity. She  believed that by modifying the product she will be able to create a new  product. Identify the concept and define it.

6. Disha, a graduate of Horticulture from KurushetraUniversity came across a  barren land near when she visited this place. Disha was fond of strawberries  and was inquisitive to understand the reason why strawberries could not be  grown there. She was informed by the local authorities that the land was  infertile for raising strawberries. She took this as a challenge and believed  in its success. Best quality strawberries now mark the beauty of that barren  piece of land.

A. Identify and explain the 'idea field' from where the idea has been  generated.

B. Also explain and give one example each for four other idea fields  which may generate useful product ideas.

7. Vinod is working as the chief accountant in ABC infrastructure Ltd. He  came to know that the company is planning to announce an interim dividend.  He purchased 2000 shares of the Co. at the market price of ₹215 with the  expectation of an appreciation in the

marketprice. When the price increased to ₹537 he sold his holdings &made a handsome profit. Name the related concept which social values have been affected here?

8. 'It is the process of entrepreneurship which involves the translation of a useful idea into an application which has commercial value.' Identify the process.

9. 'The process of generation of ideas' can be streamlined by developing an awareness about it and these work as the convenient frames of references for this.

    A. Identify the concept stated in the above lines.

    B. Explain any three sources of the concept identified which are used by an Entrepreneur.

10. Ramsaran, an auto-mechanic, was working in a city. But due to ill health of his parents he was compelled to shift to his village. The village was approximately two Kilometers away from the nearest highway. He noticed that vehicles which broke down had no repair facility in that area. This gave him an idea to open a Auto-Service-Centre for earning his livelihood. He motivated some young boys of his village to join him for providing this service. He trained them and employed them in his workshop.

Basic ideas emerge from different sources.

    A. Identify the category of source under which Ramsaran's ideas emerge.

    B. State two other categories from where basic ideas emerge.

    C. Identify any one value which was communicated to the society byRamsaran'sbehaviour.

11. BalwantSingh of Bikaner thought of air-conditioned houses which do not require electricity. He wanted to explore the idea of construction of such eco-friendly houses which will remain cool in summers and warm in winters. He conceived the idea in 2010 but the final product could take shape in 2014. Name the stage in 'The Creative Process' described in the above lines.

## PART B

Topic : Project on Market Survey

A detailed market research which includes

1. About the company , Brand : Major markets , top products , Revenue and other details

    2. About the product : Introduction , Use etc

    3. Features of the product : Unique features

4. Competitor Analysis : Comparison with 3 existing products in the market , their price and other details

    5. A Survey Questionnaire with required number of questions 6. Response from the public with required number of respondents 7. Analysis of the above responses with diagrammatic representation :

    Finding out the customer view over the product like its price , quality , features, usefulness ,

8. Recommendation to the company : Improvements in the product that can enhance its value

9. A innovation suggestion through market analysis (innovation could be in product content, feature,design, packaging, distribution, strategy, service etc.)

    10. Conclusion of the project

**Project Work: 20 Marks**

**One Project to be done throughout the session, as per the existing scheme.**

The students have been given topics for  CBSE  project

  The class has been divided into 06  pairs

**GROUP I :  Mahabharata :Tell the tales**

**GROUP II : Vijaynagar Empire :Hampi :Few facts unexplored :** The Architectural Culture

**GENERAL GUIDELINES**:

- The project is to be done on inter-leaf sheets.
- The total length of the project will be 20-25 pages.
- Students have to preserve the initial drafts of the project as well as any research papers that they may have used.
- Students have to be prepared to give a presentation of the project in the class.
- A summary / synopsis (one page) of the project has to be prepared covering:
  **The objective statement    Their observations and findings     The learning outcomes**
- Any other learning from this exercise such as skills of team work, problem solving, time management, information collection, processing, analysing and synthesizing relevant information to derive meaningful conclusions;
- The projects must be neat and well-presented and must be completely hand-written.
- No whiteners to be used or written matter to be crossed out. In case of any mistakes, redo the sheet.
- Do not number sheets or write dates unless so instructed. ·
- Colour illustrations, maps, charts may be hand drawn or printed (if it is relevant for any aspect of your project) are welcome to make them look attractive.

**Steps involved in the conduct of the project: Students may work upon the following lines as a suggested flow chart:**

- **Choose a Title/Topic Need of the Study,**
- **Objective of the Study**
- **Hypothesis Content -Timeline, Maps, Mind maps, Pictures, etc.**
- **(Organization of Material/Data Present Material/Data)**
- **Analysing the Material/Data for Conclusion**
- **Draw the Relevant Conclusion**
- **Bibliography**

**Expected Checklist for the Project Work:**

• Introduction of topic/title

• Identifying the causes, events, consequences and/or remedies

• Various stakeholders and effect on each of them

• Advantages and disadvantages of situations or issues identified

• Short-term and long-term implications of strategies suggested during research

• Validity, reliability, appropriateness, and relevance of data used for research work and for presentation in the project file

• Presentation and writing that is succinct and coherent in project file

• Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.

**Assessment of Project Work:**

- Project Work has broadly the following phases: Synopsis/ Initiation, Data Collection, Data Analysis and Interpretation through activities ,quiz, survey ,interviews and Conclusion.
- Viva

**B. Prepare the PPT , research based comparative on the chapter Through the Eyes of the Travellers and character play it in the class.**

**C. Make a sample paper on Theme 1 :Chapters 1-4**

**D. Practise mapwork as per the CBSE list and attach in a file /register.**

**E. Assignments on Google Classroom to be completed in the register.**

## HOME SCIENCE

1. Develop a **leaflet** for Consumer Education and Protection on any one of the following. Compile it according to the prescribed format

   A.

   a. Consumer Protection Act (introduction)
   b. Consumer rights
   c. Consumer Responsibilities

   B.

   a. Consumer Protection Act (introduction)
   b. Consumer Problems

2. **Project**
   Any one of the following project:
   a. Visit to the neighbouring areas and interview two adolescents and two adults regarding their perception of persons with special needs.

   - (Cover page, Aim, Introduction to disability, types of disabilities, Rights of students with disability, Details of interviewee, Questionnaire, Observation, Bibliography)

   OR
   b. Profile any two person (child/adult) with special needs to find out their diet, clothing, activities, physical and psychological needs.

- (Cover page, Aim, Introduction to disability, types of disabilities, Rights of students with disability, Details of interviewee , Questionnaire, Observation, Bibliography)

OR

c. Market survey any five processed foods with their packaging and label information.
(Make a table comparing the types of packaging materials used for different types of foods.)
Sample table-



| Name of Product | Packaging Materials Used | Label Information | | | | | |
|---|---|---|---|---|---|---|---|
| | | Date of packaging | Best before date | Weight | Certification mark (e.g. Agmark/ FPO/ISI) | Nutrition Information | Remarks, if any |
| | | | | | | | |

From the collected information point out the relative merits and demerits of the different packaging materials used.

- ***Assessment Criterion*- *Content, Presentation,.***
- ***Marks will be awarded in Annual Examination during practical Examination.***

# **ASSIGNMENT**

## **Chapter 1: Work, Livelihood and Career**

**Fill in the blanks-1 Mark**

1. Career is driven by _____.

2.Choice of career is generally affected by _____.

3. Rahul makes and sells beautiful paintings, he wants to excel and grow in this field of work. This work would be termed as-
a)Meaningful work
b) Job
c)Career
d)Livelihood

4.Your friend who is studying in Class XII is very good in designing clothes .She wants to pursue her career in fashion designing.  Her family is very supportive in this decision. But which two other factors she should consider while opting fashion designing as her career-
a)Globalization and Financial returns
b)Own interest and family support
c)Individual preference and aptitude
d)Needs and aspiration

Short Question Answer – 2 Marker
1. What do you understand about meaningful work?
2.  What is the difference between a job and Career?

**TRADITIONAL OCCUPATIONS OF INDIA**

1.In rural areas _____ is the main occupation in India.

2. Famous weave of Gujarat_____& Uttar Pradesh_____
3. Which type of crops are produced by Indian farmers for sale in urban markets?
a) Food crops
b) Cash crops
c) Horticulture crops
d) Plantation crops

4.Fishing is very popular traditional occupation of India because of-
a)Large population
b)Diversity
c)Forestation
d)Long coastline

5.Name the  state of the craft  shown in picture-



a)Karnataka
b)Maharashtra
c)Odissa
d)Assam

6.List any four traditional occupations of India.

7. Rupesh's grandfather and his father have been involved in embroidery on cotton fabric since the last 40 years. His brother has also joined the same work but Rupesh does not want to continue with it. What could be two possible reasons for his decision?

8. Anushka is a good handicraft entrepreneur and her friend Simran is also running a handicraft business, but she is not as successful as Anushka. How can Anushka give her suggestions to run a successful handicraft business?

**Work, Age and Gender**
1. Define the term 'sex'.
2. _____ refers to the biological categorization based on genetics, reproductive organs.
3. _____ refers to social identity of a person.
4. India's Supreme Court on _____ gave its decision that Section 377 is unconstitutional'.
5. State the year in which the following acts were passed –
a)   The Factories Act -_____
b)   The Plantation Labour Act-_____
c)    The Mines Act, which provides protection to women in various industrial sectors _____
d)   Employees State Insurance Act and Maternity benefit Act - _____
6. _____ article of the Constitution of India guarantees equality of opportunity for all citizens in matters relating to employment and appointment to any office under the state.
7. Which article states that crèches should be maintained if more than 30 women are employed in an industry or factory?
8. _____ act came into force for equal wages for the same work or similar kind of work.
9. Beti Bachao, Beti Padhao scheme was launched on_____ by_____
10. Which organization was responsible for implementation of Equal Remuneration Act?
11. Expand:
a)   KGBV -
b)   BBBP -
c)   SSA –
d)   NPA -
e)   ESI -
f)   RTE -
g)   KVIC-

12. "Gender is socially constructed". Elaborate on this statement with the help of examples.
13. "Changes come with continuity in the society". Explain this statement with context to how home makers contribute in the economy of the family.
14. Constitution of India guarantees equal opportunity to men and women in all walks of life. What are the acts which safeguard Constitutional rights of women?
15. Write a short note on the following:
a)    Kasturba Gandhi Balika Vidyalaya (KGBV)
b)   Beti Bacho Beti Padhao Yojana

**ERGONOMICS**
**I. FILL IN THE BLANKS:-**

i._____is the study of work with the primary goal being adapt the work environment to the worker.

ii.Ergonomics is derived from two Greek words-_____and _____.

iii.The other name of ergonomics is _____.

iv.Ergonomics is an adjustment of _____and _____.

v.The four pillars of ergonomics are _____, _____,_____and _____.

vi.Creating a _____and _____work environment is critical for a work place.

**II.TRUE OR FALSE:-**
a)   Ergonomics principles are intended to improve the fit between a worker and an activity.

b)   Ergonomics is a topic that's important only in the workplace.

c)  The focus of ergonomics intervention and the best ergonomics solution must be its effect on productivity.

d) Ergonomics considerations influence employee productivity only.

**III.MULTIPLE CHOICE QUESTION :-**

(i) Your body can be stressed by:
a.    Bad posture
b.    Inappropriate temperature
c.    Bad lighting
d.    All of the above

(ii) Anthropometry is the science that measures-
a.       Height, weight, and size
b.    Body fat percentage
c.    Grip strength, range of motion, and functional
d.       All of the above
e.    A & B only

(iii) The study of the mechanical laws relating to the movement or structure of living organisms.
a.    Anthropolgy
b.    Anthropometry
c.     Biomechanics
d.    Anthrology

(iv) 'Ergonomics' is related to human-
a.    Comfort
b.    Safety
c.     Both 'a' and 'b'
d.    None of the above

(v) The following subject(s) is (are) related to 'Ergonomics'-
a.    Anthropology
b.    Physiology

c. Psychology
d. All of the above

(vi) The height of the top of the work bench should be __ the height of the elbow of the workmen.
a. at
b. Above
c. Below
d. Any of the above

**III. QUESTIONS:-**

(i) Ramesh was designing a chair considering few ergonomics principle in which his main consideration for the design is chair height only as per the workplace. Comment in favour or against for this statement with valid reason.

(ii) The ergonomic design of workplaces is essential to enhance the labour productivity and ensure the health and safety of all workers/employees. In this respect, what are the major ergonomics suggestion you must give to an employer to maintain the positive working environment in his organization ?

**ENTREPRENEURSHIP**

**I. FILL IN THE BLANKS:**

i. _____is the act of creating a new and innovative enterprise/product or services.
ii. The function of _____is to change the patterns of production or design of a product through innovation, invention, adopting new technologies or re-producing an old one in a new way.
iii. _____, _____ and _____are excellent examples of entrepreneurs with great vision.
iv. _____ focusses on doing social goods.
 v. _____ work for the benefit of underprivileged and disadvantaged group.
vi. Social Entrepreneurs are also known as _____.


**II. MULTIPLE CHOICE QUESTION :-**

i. Entrepreneurial behaviour includes:
(a) Solving problems
(b) Taking initiatives
(c) Taking responsibility
 (d) All of above

ii. Which of these statements best describes the context for entrepreneurship?
(a) Entrepreneurship takes place in small businesses.

(b) Entrepreneurship takes place in large businesses.
(c) Entrepreneurship takes place in a wide variety of contexts.
(d) Entrepreneurship does not take place in social enterprises.

iii. Entrepreneurs attributes includes:
(a) Preservence
 (b) Hard working
(c) Determination
(d) All of above

iv. To provide financial assistance to entrepreneurs the government has set up a number of_____.
(a)  financial advisors.
(b) financial intermediaries.
(c)  Industrial estates.
(d) financial institutions.

v. Entrepreneurship can best be described as _____.
(a) a process that requires setting up a business.
(b) taking a significant risk in a business context.
(c) having a strong vision.
(d) a process involving innovation, new products or services, and value creation.

vi. Entrepreneurs skills includes:
 (a) Creative problem solving
(b) Persuading
(c) Negotiation
 (d) All of above

**III. QUESTIONS:**

(i) Laxmi is a challenging lady and wants to set up her new business of handicraft and indigenous art. What important personal attributes will help her to take on the challenges of an enterprise?

(ii) "Entrepreneurs think differently from non-entrepreneurs". Justify the statement with an example.

# Chapter 10
## DESIGN FOR FABRIC AND APPAREL

Multiple choice questions
a.      Which is not an element of art
1.   Colour
2.   Texture
3.   Line
4.   Emphasis
   b. _____ lines add length or height to the body and make it appear more slender.

1. Vertical lines
2. Horizontal lines
3. Diagonal lines
4. Curved lines

c. In broadest sense design can be described as _____ in form
1. Emphasis
2. Harmony
3. Lines
4. Proportion

d. Sunlight is the radiant energy reaching from sun by _____
1. Infra red rays
2. Light waves
3. Ultra violet rays
4. None of the above

e. Intensity describes the
1. Brightness
2. Lightness
3. Darkness
4. Hue

Q2. Fill in the blanks

a. _____ is the basic element of art

b. _____ lines are the most active lines

c. _____, _____ and _____ are the three primary colours

d. _____ and _____ are the two forms of balance.

e. Combination of _____ make shape or form

**f.** There are three characteristics of colour _____ , _____ and _____

Q3. How do straight lines in a dress affect the personality of any individual?

Q4. Discuss the emotional effect of any one colour

Q5. Name the primary and secondary colours.

Q6. What is the effect of cool and warm colours on our personality.

Q7. How can emphasis be created in any portion of a dress?

**2 marks questions**

Q8.Reema is designing a suit for her thin sister. What points should she keep in mind?

Q9.Tarun is wearing pants and a shirt. State two ways each by which you can check harmony and emphasis in this dress

Q10.Shalu is very tall and slim. She has to buy a sari for herself. How can she camouflage her figure flaws?

Q11. Mrs.Mehra is round from the waist. Keeping the elements of arts and principles of designs in mind, design a party dress for her.

**4 marks questions**

Q12. Swati wants to design a saree and blouse for a woman who has fat arms. Show her how she can use all the 4 elements of design in designing the dress

Q13.Ritu is designing a dress for a woman who has heavy hips. Suggest how she can use all the four elements of design while designing this dress.

Q14. State four suggestions, by which you can use various colours in clothing, to disguise figure flaws.

Q15. Upasana wants to wear skirt and top, illustrate two ways by which Rhythm, Harmony, Balance and Emphasis can be checked in this dress.

**5 marks questions**

Q16.You have to design a frock for a oneyear old girl. What two features would you consider while selecting fabric for the frock? Suggest four ways each you can ensure rhythm and satisfactory workmanship in this dress.

Q17. Suggest a suitable dress, keeping in mind elements of art and principles of design to suit your friend who is tall, heavy and fair.

## INFORMATICS PRACTICES

Project Investigation Report:

\* All the students will visit Any Office/Chemist Shop/Hospital/Library/Movie Booking Counter as per their chosen Project Title and prepare the project investigation report using screen shots, reports, bill copy, receipt copy etc.

### Section – A
### Section A consists of 25 questions, attempt any 20 questions.

1. What is the nature of the type of data used in Pandas Series object?
   a. Only Homogenous
   b. Heterogeneous
   c. Both a and b
   d. None of the above

2. Python Pandas is a _____ Python Library:
   a.     Open source.
   b.     Proprietary
   c.     Both a and b
      d.  None of the above

3. Which of the following statement in Python will create an empty series, of the Pandas object 'pd'?
   a. pd.series()
      b. pd.Series()
      b. pd.Dataframe()
      b. pd.DataFrame()

4.     Pandas DataFrame is _____ based data structure:
a.     2 Dimensional
b.     3 Dimensional
c.     1 Dimensional
      d. Multidimensional

5. A Pandas Series object was created using the statement **pd.Series([3,2,None]),** where 'pd' is a 'pandas' object.        What do you think is the data type of the Series object?
   a. int32
   b. int64
   c. float64
   d. object

6.      Which among the following attribute of the Pandas object is used to check whether a Series object is empty or not?
a.      nan
b.      NaN
c.      empty
d.      isEmpty

7.      Name the type of chart that provides visual representation of statistical 5 number summary of a given data set?
a.      Line Chart
b.      Pie Chart
c.      Box Plot
d.      Histogram

8.      Which among the following method of the 'pyplot' library will display the grid on a plot?
a. showGrid()
b. ShowGrid(True)
c. grid(show=True)
d. grid(True)

9.      Which attribute of DataFrame is used to perform the transpose operation of a DataFrame?
        a.  T
        b.  ndim
        b.  Empty
        b.  shape

    10. To create an empty series object you can use:
            a.  pd.Series(empty)
            b.  pd.Series(np.NaN)
            c.  pd.Series( )
d.      All of these

    11. What is your 'digital footprint'?
a.      The time you spend on your computer
            b.  The digital trail left by everything you do online
            c.  It is the opposite of your digital fingerprint
            d.  The amount of electronic devices you buy in a year

12.     Which of the following statement will print Series 'S1' in reverse order?

        a. print(S1[: : 1])

        b. print(S1[: : -1])
        c. print(S1[-1: : -1])
        d. print(S1.reverse( ))

    13. Which of the following is not an open source software?
a.      LibreOffice
b.      Microsoft Office
c.      GNU image manipulation
            d.  MySQL

14. Select the correct statement to assign a new name 'MySeries' to a series object named
's':      a.  s.Name('MySeries')
   b.   s.name='MySeries'
   b.   s('MySeries')
   b.   s.Name='MySeries'

15.       Which of the following cannot be considered as Digital Property?
   a.   Your own blog
   b.   Online shopping account
   c.   Win-8/10 Installed in your Laptop
   d.   Email

16. Dhumal is not able to differentiate between shareware and freeware. Help him to get the correct one.
   a.   Freeware available for free and shareware is available free for a limited time
b.      Freeware can be modified but shareware is not
c.      a and b both
d.      None of the above

17.       The output of df.index contains which among the following, where 'df' is the name of
DataFrame object?  a.  a list of row labels with datatype
   b.   a list of row labels only
   b.   a tuple of the list of row labels with datatype
   b.   a tuple of row labels only

18. Read the following statements:
        i.A copyright is automatically granted to authors or creators of content.
ii.In FOSS source code is usually hidden from the user. Which of the following is correct?

   a.   (i) True, (ii) False
   b.   (i) False, (ii) True
   c.   Both are True
d.      Both are False
19.       Which of the following dataframe attribute is used to fetch the datatype of values used in the
dataframe?       a. df.datatypes
   b.   df.dt
   b.   df.data_types
   b.   df.dtypes

20. Which is the good way to dispose of E-Waste?
a.       Throw it in the street.
   b.   Give it to a reliable e-waste recycling company.
c.       Burn it in your backyard.
d.       Throw it in a dump.

21. How long is your digital footprint visible for?
   a.   It creates a permanent record.
   b.   It depends on the websites you spend most time on.
   c.   Your digital footprint wipes clean after a year.
   d.   The record never lasts for more than a month

22. Intellectual Property Rights (IPR) protect the use of information and ideas that are
of      a. Ethical value

b. Moral value
b. Social value
b. Commercial value

23.    Which of the following condition raise a ValueError while creating a series?
       a. Values are provided without indexes
       b. Indexes are not similar to number of values
       c. Values are not similar to number of indexes
       d. All of the above

24. Which of the following practices ensure confidentiality of information? **Statement 1:** Use of firewall wherever possible
**Statement 2:** Do not email confidential data
       a. Both Statements 1 and 2
b.    Statement 1 but not Statement 2
c.    Neither Statement 1 nor Statement 2
d.    Statement 2 but not statement 1

25.    Which of the following statement is incorrect for dataframe indexes?
       a. Dataframe index can have only numbers
       b. DataFrame index can have numbers, characters or string
       c. DataFrame index cannot be defined explicitly
       d. DataFrame indexes are of two type: row indexes and column indexes

### Section – B
### Section B consists of 24 Questions (26 to 49). Attempt any 20 questions

26. Which of the following is correct statement for creating a series to assign 'None' to all series elements of 5 elements?
       a. s = pd.Series()
       b. s = pd.Series(None,index=[1,2,3,4,5])
       c. s = pd.Series(none,5)
       d. s = pd.Series(none*5)

27. Consider a series named 's' with the following content:
       1. 25
       2. 36
       3. 14
       4. 19
       5. 33
       6. 49
       7. 18
       8. 11          dtype: int64
What will be the output, when the statement s[-1:-8:-3] is used?

a.       7  11
         4  33
         1.  36
         dtype: int64

b.  7  11
         5  49

56

1.　14
　　　　dtype: int64

c.　7　11
　　　　1.　19
　　　　0　25
　　　　dtype: int64

d.　None of the above

28. Which of the following process may be applied to create a series with the following content?

　　　　　　1.　12

　　　　　　2.　13

　　　　　　3.　55

　　　　　　4.　41　　dtype: int64
　　　　a.　s=pd.Series([12,13,55,41])
b.　　　s=pd.Series(data=[12,13,55,41])
　　　　c.　s=pd.Series(data=[12,13,55,41], index=[0,1,2,3])
　　　　d.　All of the above
　　　　　where 'pd' is the name of the Pandas object.

29. Which of the following can be considered as a cybercrime?
　　　　a.　harassment using computers
　　　　b.　online banking frauds
　　　　c.　phishing
　　　　d.　all of these

30.　　To change the width of bars in a bar chart, which of the following argument with a float value is used?

　　　　a.　thick
　　　　b.　thickness
　　　　c.　width
　　　　d.　barwidth

31.

What will be the output of the following code? import panadas as pd
d={'Name':['Raju','Mohini','Akshay','Ajay'],'City':['Bombay','Baroda','Bhuj','Surat'],'Score':[8,9,7.5,8.5]}
df=pd.DataFrame(d)
print(df[1:3])

a.
Name City Score
1 Mohini Baroda 9.0
2 Akshay Bhuj 7.5

b.
Name City Score
1 Mohini Baroda 9.0

c. Error
d. No output

32. To access column-wise data from dataframe which of the following function is used?
   a. iterrows()
   b. itercols()
   c. iteritems()
   d. itercolumns()

33. Unauthorised monitoring of other people's communications is called _____.
   a. Spamming
   b. Pharming
   c. Phishing
   d. Eavesdropping

34. ............... is a kind of cyber crime in which attacker blackmails the victim to pay for getting access to the          data.

   a. Phishing
   b. Identity Theft
   c. Ransomware
   d. none of these

35. If 's' is a series that contains ages of 20 students in a class.  Which among the following statement will count the number of student below 14 years?
   a. s<14
   b. s.count(s<14)
   c. s[s<14].count()
   d. s[s<14].count

36. EULA stands for _____
   a. End User Leave Agreement
   b. End User License Aim
   c. End User License Agreement
   d. None of the above

37. Amit wants to add a row on top of the dataframe. The data is: Anu,76,72,73. Which of the following statement is correct to add row:
   a. df.locP{0} = ['Anu', 76, 72, 73]
   b. df.loc(0)= ['Anu',76,72,73]
   c. df.loc<0>=['Anul',76,72,73]
   d. df.loc[0] = ['Anu',76,72,73]

38. Which among the following is not a e-waste disposal process?
a. Dismantling
b. Refurbishing
c. Recovering
   d. Spamming

39. What will be the output of the following code?

```
import pandas as pd
df=pd.DataFrame({'Name':['Virat','Rohit','Shikhar'],
        'Runs':[1122,897,789])  print(
df.Runs)
```

a.    Runs=[1122,897,789]

b.
```
                    Runs
        Virat          1122
        Rohit           896
        Shikhar         789
        Name:Runs,
    dtype:int64  c.
        1. 1122
        2. 897
        3. 789
        Name: Runs, dtype:
    int64  d.
                Runs
        Virat        1122
        Rohit         897
        Shikhar       789
        Name:Runs, dtype:int64
```

40.

Consider two dataframes named df1 and df2 with the following content:

| df1 | | | df2 | |
|---|---|---|---|---|
| A | B | C | A | B |
| 0 | 1 | 2 | 3 0 20 | 21 |
| 1 | 4 | 5 | 6 1 22 | 23 |
| 2 | 24 | 25 | | |

What will be the output for df1+df2?

a.
```
    A     B    0     21      23
    1    26      28
```

b.
```
          A     B    C
    0   21.0  23.0 NaN
    1   26.0  28.0 NaN
    2    NaN   NaN NaN  c.
    A     B    C
    0   21    23   NaN
    1   26    28   NaN
    2   NaN   NaN  NaN
```

d. Error

41. A _____ is a type of contract between the creator of an original work permitting someone to use their work, generally for some price.

a.    Agreement
                b.  License
                c.  Patent
                d.  Copyright

59

42. The following statement will _____

```
df = df.drop(['Name', 'Class', 'Rollno'], axis = 1)
#df is a DataFrame object
```

a. delete three columns having labels 'Name', 'Class' and 'Rollno'
b. delete three rows having labels 'Name', 'Class' and 'Rollno'
c. deletes any three columns
d. return error

43. Observe the following dataframe and choose the correct answer for the given question:

```
      Name     Eng    Maths IP
1. Abhay     66     85    95
2. Bharat    69     82    82
3. Chandu    75     84    63
4. Dharmik   74     80    84
5. Ervin     70     75    90
```

Add a column for Physics named Phy with values 89, 83,65,80 and 90 respectively.

a. df.'Phy'=[89,83,65,80,90]
b. df={'Phy':[89,83,65,80,90]}
c. df.append({'Phy':[89,83,65,80,90])
d. df['Phy'] = [89,83,65,80,90]

44. The plot which tells the correlation between two variables which may not be directly related is _____ graph/chart.
a. line
b. scatter
c. bar
d. pie

45. CC (in reference to public license) stands for _____
a. Creative Commons
b. Carbon copy
c. Creative Comments

d. Creative Culture

46.

Consider the following code and predict the output:

```
import pandas as pd df=[[2,3,4],[1,5,6]]
print(df+[10,20,30])
```

a.    Error

b.

```
0     1   2  0 12  23  34
1         11  25  36
```

c.

```
    0  1  2
0   2  3  4
1   4  5  6
```

d.

```
    0   1
0  12  11
1  23  35
2  34  36
```

47.    How many values will be modified by last statement of given code ? `import pandas as pd`

```
S1 = pd.Series(['NewDelhi', 'WashingtonDC', 'London',
'Paris'],  index=['A', 'B', 'C', 'D']) S1[1 : 3] =
'ND'
```

a.    1
b.    2
c.    3
d.    4

48.    Which of the following statement will modify the first three values of Series 'S1'? a. S1[0, 1, 2] = 100

b.    S1[0 : 3] = 100
b.    S1[ : 3] = 100
b.    All of the above

```
import pandas as pd
x={'Term1':65,'Term2':55}
xii={'Term1':60,'Term2':50} c={'Class
10':x,'Class 12':xii}
df=pd.DataFrame(c)
print(df)
```

b.

```
import pandas as pd
10={'Term1':200,'Term2':189}
10={'Term1':350,'Term2':250} c={'Class
10':10,'Class 12':12}
df=pd.DataFrame(c)
print(df)
```

c.

```
import pandas as pd x=['Term1',
200,'Term2', 189]
xii=['Term1',350,'Term2',250]
```

```
        c={'Class 10':x,'Class 12':xii}
        df=pd.DataFrame(c)
        print(df)
    d.
        import pandas as pd x=('Term1',
        200,'Term2', 189)
        xii=('Term1',350,'Term2',250)
        c={'Class 10':x,'Class 12':xii}
        df=pd.DataFrame(c) print(df)
```
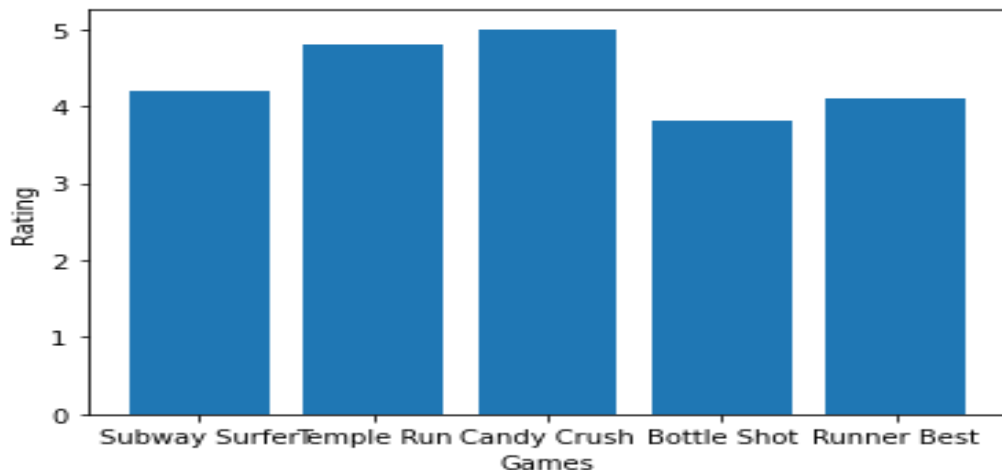
## Section - C
**Section C, consists of 6 Question (50 to 55). Attempt any 5 questions.**

### Case Study

Mr. Sharma is working in a game development industry and he was comparing the given chart on the basis of the rating of the various games available on the play store.



He is trying to write a code to plot the graph. Help Mr. Sharma to fill in the blanks of the code and get the desired output.

```
    import_____           #Statement 1
    Games=["Subway Surfer","Temple Run","Candy Crush",
             "Bottle Shot","Runner Best"]
    Rating=[4.2, 4.8, 5.0, 3.8, 4.1]
    plt._____(Games,Rating)        #Statement
2   plt.xlabel("Games")
 plt._____("Rating")        #Statement
3       plt._____
#Statement 4
```

**Based on the given information, answer the questions NO. 50-55.**

50.    Choose the right code from the following for statement 1.

a.    `matplotlib as plt`

b.    `pyplot as plt`

c.    `matplotlib.pyplot as plt`

d.      `matplotlib.plt as pyplot`

51.     Identify the name of the function that should be used in statement 2 to plot the above graph.  a. line()   b. bar()

      c.   hist()

      c.   barh()

52.     Choose the correct option for the Statement 3.

a.      title("Rating")

b.      ytitle("Rating")

c.      ylabel("Rating")

d.      yaxis("Rating")

53.     Choose the right function/method from the following for the statement 4.  a.   display()   b.   print()

      c.   bar()

      c.   show()

54.     In case Mr. Sharma wants to change the above plot to the any other shape, which statement, should he change.

a.      Statement 1
b.      Statement 2
c.      Statement 3
d.      Statement 4


55.     In case, it is required to provide different colours for each bar, which argument is to be used within the plot function?
a.      color
b.      colors
c.      colour
d.      Colors


Topic : SQL Commands
Q1.     Which command in SQL is used to add record?
(a) add  (b) append     (c) insert        (d) None of these
Q2      Which command in SQL is used to add a new column/field in a Table?
(a) Alter table    (b) append table(c) insert table   (d) None of these
Q3.     Commands allows to perform tasks related to data manipulation.
(a) DDL     (b) DML      (c) TCL (d) None of these
Q4.     Table constraint to prevent duplicate entries of rows.
(a) NOT NULL   (b) NULL        (c) Unique        (d) All of these
Q5.     The ................ keyword eliminates duplicate rows from the results of a Select statement.
(a) Different      (b) Distinct       (c) Unique       (d) None of these
Q6.     A table student consists of 5 rows and 6 columns. Later on 1 column added and 2 rows removed. What will be the degree and cardinality of the table student?
(a) Degree 6  Cardinality 5
      (b) Degree 7  Cardinality 5
      (c) Degree 7   Cardinality 7
      (d) Degree 7   Cardinality 3
Q7.     SQL command to open database employee.

(a) use employee      (b) open employee      (c) create employee      (d) None of these

Q8.      Student table consists of 4 columns Rollno, Name, Date_of_birth and Fee. What will be the SQL command to remove column Fee from the table?

a.      Alter table student
           remove column Fee;

      (b) Modify table student
           remove column Fee;

(c) Alter table student
           drop Fee;

   (d) Modify table student
           drop Fee;

Q9.      What will be the command to view all the records from the table client?

(a) select all from client;  (b) select * from client;

(c) show all from client;   (d) None of these

Q10.      SQL function to count the total number of records present in the table given table.

(a) count(Movie)(b) count(*)

(c) count(All)              (d) None of these

Q11.      Consider a table Consumer with fields (ConsumerName, NoofUnits, Address, ConsumerNo.) Select the suitable primary key for the table consumer.

(a)  ConsumerName      (b) NoofUnits    (c) Address      (d) ConsumerNo

Q12.      What will be the SQL command to display all the records from Customer table as per customer name in ascending order?

(a) select * from customer arrange customername;

        (b) select * from customer order by customername asc;

(c) select * from customer order by customername;

        (d) select * from customer group by customername;

Q13.      ………….. clause is used in combination with Group by clause in a Select statement to put condition on groups.

(a) order by      (b) where      (c) having      (d) None of these

Q14.      _____ clause is used to filter the rows / records from the table.

(a) order by      (b) where      (c) having      (d) None of these

Q15.      Drop table is a ……………….. command.

(a) DDL        (b) DML          (c) TCL          (d) None of these

Q16.      What will be the SQL command to display the structure of the table emp_details.

(a) show emp_details;   (b) desc emp_details;   (c) view emp_details      (d) Any of these

Table : PRODUCT

| Prod_ID | Product_Name | Manufactures | Price |
|---------|--------------|--------------|-------|
| TP01    | Pen          | Cello        | 5.00  |
| TP02    | Gel Pen      | Luxar        | 10.00 |
| TP03    | Pen          | Luxar        | 20.00 |
| TP04    | Pencil       | Natraj       | 4.00  |
| TP05    | Sketch       | Camel        | 2.00  |

Table : CLIENT

| Client_ID | C_NAME | CITY | Prod_ID |
|-----------|--------|------|---------|
| C101 | Rakesh | Delhi | TP01 |
| C102 | Sunil | Mumbai | TP05 |
| C103 | Dinesh | Delhi | TP02 |
| C104 | Suresh | Kolkata | TP01 |
| C105 | Vimal | Bangalore | TP03 |

Q17 to Q22 are based on above tables PRODUCT and CLIENT

Q17.    What will be the output of the SQL command: select count(*) from client;

(a) 4     (b) 5     (c) 6     (d) 8

Q18.    What will be the output of the SQL command: select max(price), min(price) from Product;

(a) 2.00   20.00  (b) 20.00   2.00  (c) 5.00      10.00          (d) No output

Q19.    What will be the output of the SQL command?
        select price + 10 from product where Product_Name = "Pen";

Q20.    What will be the output of the SQL command?
        select C_Name from Client where C_Name like "S%";

Q21.    What will be the SQL command to view Client_ID and Client_Name for all the clients living in City Delhi, Mumbai or Chennai?

Q22.    What will be the output of the following SQL command?
select Product_Name, Client_Name from PRODUCT P, CLIENT C
where P.Prod_ID = C.Prod_ID and Price >=10;

Q23.    What will be the SQL command to remove all the records from the table Movie?

(a) drop table Movie;       (b) delete from Movie;
(c) drop * from Movie;     (d) delete * from Movie;

Q24.    Consider a table Player with fields (Player_Name, Player_No, NoofMatches)
What will be the SQL command to display the Player details of all the Players name ends with 'th'?
Select * from player where player_name like "%th";

Q25.    Consider a table Book with fields (Book_no, Title, Author, Price)
What will be the SQL command to add 100 in the price of all the books.
Update book
        Set price = price + 100;

## LEGAL STUDIES

Q. Explain the origin of the basic structure doctrine in Indian judiciary. (1000 words)

### Relations and functions

**Multiple choice questions. Select the correct option.**

1. For real numbers $x$ and $y$, define $xRy$ if and only if $x - y + \sqrt{2}$ is an irrational number. Then the relation $R$ is

   (a) reflexive           (b) symmetric

   (c) transitive          (d) none of these

2. Let $f : R \rightarrow R$ be defined by $f(x) = x^2 + 1$. Then, pre-images of 17 and $-3$, respectively, are

   (a)   $\varphi, \{4, -4\}$     (b)   $\{3, -3\}, \varphi$     (c)   $\{4, -4\}, \varphi$     (d)   $\{4, -4\}, \{2, -2\}$

3. The maximum number of equivalence relations on the set $A = \{1, 2, 3\}$ are

   (a)   1          (b)   2          (c)   3          (d)   5

4. Let $A = \{1, 2, 3\}$ and consider the relation $R = \{1, 1), (2, 2), (3, 3), (1, 2), (2, 3), (1,3)\}$. Then R is

   (a) reflexive but not symmetric          (b) reflexive but not transitive

   (c) symmetric and transitive          (d) neither symmetric, nor transitive

5. Let $f : [2, \infty) \rightarrow R$ be the function defined by $f(x) = x^2 - 4x + 5$, then the range of $f$ is

   (a)   R          (b)   $[1, \infty)$          (c)   $[4, \infty)$          (d)   $[5, \infty)$

6. Let $A = \{1, 2, 3, 4\}$. Let $R$ be the equivalence relation on $A \times A$ defined by $(a, b) R (c, d)$ if $a + d = b + c$, Then the equivalence class $[(1,3)]$ is

   (a)   $\{(1,3)\}$     (b)   $\{(2,4)\}$     (c)   $\{(1,3),(2,4), (1,4)\}$     (d)   $\{(1,3), (2,4)\}$

### 1/2 MARK QUESTIONS (VERY SHORT QUESTIONS)

1. Let $A = \{1, 2, 3\}$, $B = \{4, 5, 6, 7\}$ & let $f = \{(1, 4), (2, 5), (3, 6)\}$ be a function from A to B. State whether f is one – one or not.

2. If $A = \{2, 5, 7, 9\}$. write the relation aRb such that 'a is less than b' and $a, b \in A$.

### 3/5 MARKS QUESTIONS (LONG QUESTIONS)

3. What is the number of relation in $A = \{a, b, c\}$ containing $(a, b)$ & $(a, c)$ which are reflexive & symmetric but not transitive

4. Show that the function $f : Q - \{3\} \rightarrow Q$ defined by $f(x) = \frac{2x+3}{x-3}$ is injective but not subjective

5. Show that the relation S on the set $A = \{x \in Z : 0 < x < 12\}$ given by $S = \{(a, b) : |a - b|$ is divisible by 3, $a, b \in Z\}$ is equivalence relation. Find the set of all elements related to 1.

6. Prove that the relation R on Z defined by $(a, b) \in R <=> a - b$ is divisible by 5 is an equivalence relation.

7. Let R denote the relation on N X N such that $(a, b) R (c, d) <=> ad (b + c) = bc (a + d)$. Check whether R is an equivalence relation.

8. Show that the relation R on the set

   $A = \{x \in Z : 0 \leq x \leq 12\}$ given by $R = \{(a, b) : |a - b|$ is a multiple of 4$\}$ is an equivalence relation.

9. Give an example of a relation which is

i) reflexive & symmetric but not transitive. ii) Symmetric & transitive but not reflexive.

iii) Symmetric but neither reflexive nor transitive.

10. S is a relation over the set R of all real numbers & is given by

$(a, b) \in S \Leftrightarrow ab > 0$ check for equivalence.

11. Show that the function $f : R \to R$ given by $f(x) = x^2 + x$ is a bijection.

12. Show that the function $f : N \to N$ is given by $f(x) = x^2 + x + 1$ is one - one but not onto.

13. Let $f : N \to N$ defined by $f(n) = \{n + 1 \; n - 1 \;\; , , \;\; if \; n \; is \; odd \; if \; n \; is \; even$ Check whether f is a bijection.

14. Show that the function $f : R - \{-3\} \to R - \{1\}$ given by $f(x) = \frac{x-2}{x-3}$ is a bijection.

## 5 MARKS QUESTONS (VERY LONG QUESTIONS)

15. Show that the function $f : [0, \infty ) \to [-7, \infty )$ defined by $f(x) = 25x^2 + 10x - 7$ is one – one & onto.

## "INVERSE TRIGONOMETRIC FUNCTIONS"

### Principal Values of Inv. Trig. Fun.:

**Q1.** Find the principal values of :

(a) $\tan^{-1}\left(-\dfrac{1}{\sqrt{3}}\right)$ $\qquad\qquad \theta = -\dfrac{\pi}{6}$

(b) $\cos^{-1}\left(-\dfrac{1}{2}\right)$ $\qquad\qquad \theta = \dfrac{2\pi}{3}$

(c) $\sin^{-1}(-1)$ $\qquad\qquad \theta = -\dfrac{\pi}{2}$

(d) $\sec^{-1}\left(\dfrac{2}{\sqrt{3}}\right)$ $\qquad\qquad \theta = \dfrac{\pi}{6}$

(e) $\cos ec^{-1}(-1)$ $\qquad\qquad \theta = -\dfrac{\pi}{2}$

**Q2.** Find the value of the following:

(a) $\tan^{-1}(1)+\cos^{-1}\left(-\dfrac{1}{2}\right)+\sin^{-1}\left(-\dfrac{1}{2}\right)$ $\qquad\qquad \dfrac{3\pi}{4}$

(b) $\cos^{-1}\left(\dfrac{1}{2}\right)+2\sin^{-1}\left(\dfrac{1}{2}\right)$ $\qquad\qquad \dfrac{2\pi}{3}$

### Properties of InvTrigFun:

**Q3.** Evaluate the following:

(a) $\cos\left(\tan^{-1}\dfrac{3}{4}\right)$ $\qquad\qquad \dfrac{4}{5}$

(b) $\sin\left(\cos^{-1}\dfrac{3}{5}\right)$ $\qquad\qquad \dfrac{4}{5}$

(c) $\cos\left(\cos^{-1}\left(-\dfrac{\sqrt{3}}{2}\right)+\dfrac{\pi}{6}\right)$     -1

(d) $\sin\left(\dfrac{\pi}{2}-\sin^{-1}\left(-\dfrac{\sqrt{3}}{2}\right)\right)$     $\dfrac{1}{2}$

(e) $\sin\left(\dfrac{\pi}{3}-\sin^{-1}\left(-\dfrac{1}{2}\right)\right)$     1

(f) $\sin\left(\cot^{-1}x\right)$     $\dfrac{1}{\sqrt{1+x^2}}$

(g) $\tan\left(\dfrac{1}{2}\cos^{-1}\dfrac{\sqrt{5}}{3}\right)$     $\dfrac{3-\sqrt{5}}{2}$

(h) $\sin\left[\tan^{-1}\left(-\sqrt{3}\right)+\cos^{-1}\left(-\dfrac{\sqrt{3}}{2}\right)\right]$     1

(i) $\sin(2\sin^{-1}0.8)$     0.96

(j) $\tan\left(2\tan^{-1}\dfrac{1}{5}-\dfrac{\pi}{4}\right)$     $-\dfrac{7}{17}$

**Q4.** Prove that:

(a) $2\sin^{-1}x=\sin^{-1}\left(2x\sqrt{1-x^2}\right)$

(b) $2\cos^{-1}x=\cos^{-1}\left(2x^2-1\right)$

(c) $\quad 3\cos^{-1} x = \cos^{-1}\left(4x^3 - 3x\right)$

(d) $\quad 3\tan^{-1} x = \tan^{-1}\left(\dfrac{3x - x^3}{1 - 3x^2}\right)$

**Q5.**   Prove that:

(a) $\quad \tan^{-1}\dfrac{1}{2} + \tan^{-1}\dfrac{1}{3} = \dfrac{\pi}{4}$

(b) $\quad \tan^{-1}\dfrac{m}{n} - \tan^{-1}\dfrac{m-n}{m+n} = \dfrac{\pi}{4}$

(c) $\quad \tan^{-1}\dfrac{1}{4} + \tan^{-1}\dfrac{2}{9} = \dfrac{1}{2}\cos^{-1}\dfrac{3}{5}$

(d) $\quad 2\tan^{-1}\dfrac{1}{5} + \tan^{-1}\dfrac{1}{4} = \tan^{-1}\dfrac{32}{43}$

(e) $\quad \tan^{-1}\dfrac{1}{5} + \tan^{-1}\dfrac{1}{7} + \tan^{-1}\dfrac{1}{3} + \tan^{-1}\dfrac{1}{8} = \dfrac{\pi}{4}$

(f) $\quad \tan^{-1}\dfrac{n}{n+1} - \tan^{-1}(2n+1) = \dfrac{3\pi}{4}$

(g) $\quad 4\tan^{-1}\dfrac{1}{5} - \tan^{-1}\dfrac{1}{70} + \tan^{-1}\dfrac{1}{99} = \dfrac{\pi}{4}$

**Q6.**   Prove that:

(a) $\quad \sin^{-1}\dfrac{3}{5} + \sin^{-1}\dfrac{8}{17} = \sin^{-1}\dfrac{77}{85}$

(b) $\quad \sin^{-1}\dfrac{4}{5} + \sin^{-1}\dfrac{5}{13} = \cos^{-1}\dfrac{16}{65}$

(c) $\quad \sin^{-1}\dfrac{4}{6} + \sin^{-1}\dfrac{5}{13} + \sin^{-1}\dfrac{16}{65} = \dfrac{\pi}{2}$

(d) $\quad \sin^{-1}\dfrac{12}{13} + \cos^{-1}\dfrac{4}{5} + \tan^{-1}\dfrac{63}{16} = \pi$

(e) $\quad \cos^{-1}\dfrac{4}{5} + \cos^{-1}\dfrac{12}{13} = \cos^{-1}\dfrac{33}{65}$

**Q7.** Prove that:

(a) $$\sec^2\left(\tan^{-1} 2\right) + \cos ec^2\left(\cot^{-1} 3\right) = 15$$

(b) $$\sin\left(2\cos^{-1}\frac{1}{5} + \sin^{-1}\frac{1}{5}\right) = \frac{1}{5}$$

**A . Project Work:/ Case studies: 20 Marks**

**Class will be divided into different groups with four / five students in each group .**

**TOPIC ALLOTTED**
**Relation and function**

**Note: Students can use any one of below mentioned sub topics or any sub topic of their choice to make a project on relation and function**

**Sub topics:**

**Integration with other subjects.**

The concept of relations and functions can be integrated into various other disciplines such as physics, computer science, and economics. Students can be encouraged to explore these connections and apply their understanding of relations and functions in these contexts. Science: Students will learn about the applications of functions and relations in various scientific fields, such as physics, biology, and chemistry.

**Real-Life Linkage:**

The concept of relations and functions can be linked to real-life situations such as income and expenditure, population growth, and demand and supply in economics. Students will explore these connections and apply their understanding of relations and functions in these contexts.

**Art Integration:**

The concept of relations and functions can be integrated with art by exploring the graphical representation of functions. Students will create their own graphs and identify the characteristics of different types of functions. This can help them develop their creativity and

Visualization skills

**Sustainable Development Goals:**

The concept of relations and functions can be linked to Sustainable Development Goals such

as Goal 8: Decent Work and Economic Growth, Goal 10: Reduced Inequalities and Goal 16:

Peace, Justice, and Strong Institutions. Students will explore these connections and apply

their understanding of relations and functions in these contexts.

<u>**GENERAL GUIDELINES**</u>:

- The project is to be done on inter-leaf sheets.
- The total length of the project will be 15-20 pages.
- Students have to preserve the initial drafts of the project as well as any research papers that they may have used.
- Students have to be prepared to give a presentation of the project in the class.
- A summary / synopsis (one page) of the project has to be prepared covering:
  **The objective statement    Their observations and findings    The learning outcomes**
- Any other learning from this exercise such as skills of team work, problem solving, time management, information collection, processing, analysing and synthesizing relevant information to derive meaningful conclusions;
- The projects must be neat and well-presented and must be completely hand-written.
- No whiteners to be used or written matter to be crossed out. In case of any mistakes, redo the sheet.
- Do not number sheets or write dates unless so instructed. ·
- Colour illustrations, graphs may be hand drawn or printed (if it is relevant for any aspect of your project) are welcome to make them look attractive.

## PAINTING

PRACTICAL
Students need to prepare 2 paintings on A2 size paper based on the following mentioned topic:
1. Madhubani painting of Bihar
2. Kalamkari folk art of Andhra Pradesh
3. Gond painting of Madhya Pradesh

## PHYSICAL EDUCATION

Prepare a detailed research paper, PPT and Spiral bound file from the topic of your choice.
<u>**List of projects/ Games-**</u>

Basketball, Football, Kabaddi,
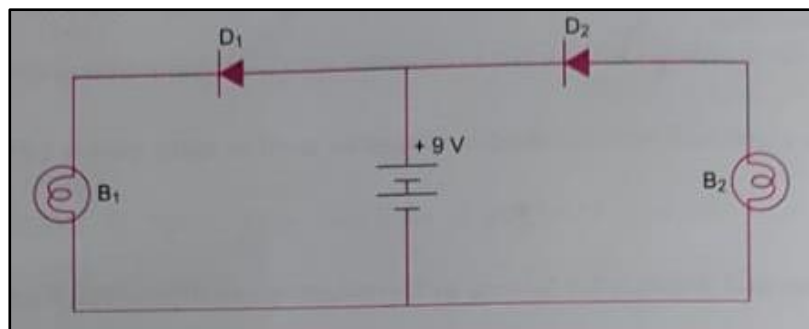Kho-Kho, Volleyball,
Handball, Hockey, Cricket,

Bocce and Unified Basketball
Complete the Investigatory project and Compile it according to the prescribed format.
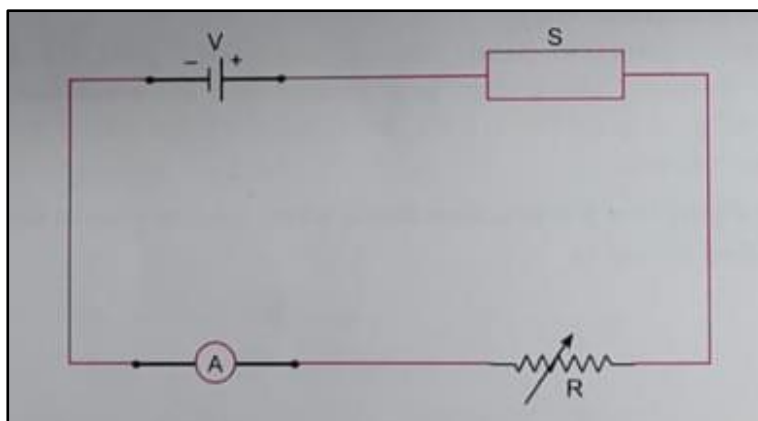
- Cover page
- Certificate
- Acknowledgment
- Index
- Introduction
- Content (including pictures/graphs/tables/survey report etc.)
- Case Study
- Bibliography
- Assessment Criterion- Content, Presentation, Research Work, Case study, Viva-voce and Confidence.
- It is an individual activity and marks will be awarded in Half Yearly and Annual Examination during practical Examination.

## PHYSICS

1. In the following diagram, which bulb out of $B_1$ and $B_2$ will glow and why?



2. In the following diagram 'S' is a semiconductor. Would you increase or decrease the value of R to keep the reading of the ammeter A constant when S is heated? Give reason for your answer.

3. Write two characteristic features to distinguish between n-type and p-type semiconductors

4. Draw energy band diagrams of an n-type and p-type semiconductor at temperature $T > 0$ K. Mark the donor and acceptor energy levels with their energies.

5. Three photo diodes $D_1$, D2, and D3, are made of semiconductors having band gaps of 2.5 eV, 2 eV and 3 eV, respectively. Which ones will be able to detect light of wavelength 6000 Å?

6. A germanium p-n junction is connected to a battery with milli ammeter in series. What should be the minimum voltage of battery so that current may flow in the circuit?

7. What are energy bands? write any two distinguishing features between conductors, semi-conductors and insulators on the basis of energy band diagram.
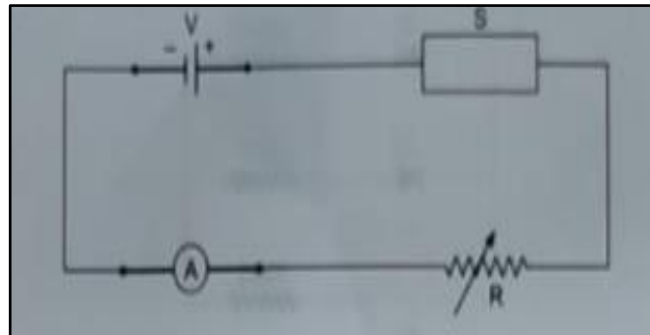
<p style="text-align:center">OR</p>

Draw the necessary energy band diagram to distinguish between conductor, semi-conductor and insulator. How does the change in temperature affect the behaviour of these material? Explain briefly.

8. Name the important process that occurs during the formation of a p-n junction. Explain briefly, with the help of a suitable diagram, how a p-n function is formed. Define the term 'barrier potential'

9. Explain how the width of depletion layer in a p-n junction diode changes when the junction is (i) forward biased (ii) reverse biased.

10.. Describe briefly, with the help of a diagram the role of two important processes involved in the formation of a p-n junction.

11. (a)Three photo diodes D1,D2 and D3 are made of semiconductor having band gaps 2.5eV, 2eV and 3eV , respectively . Which ones will be able to detect light of wavelength 600 nm?

12. A semiconductor has equal electron and hole concentration of $2 \times 10^8/m^3$. On doping with a certain impurity, the hole concentration increases to $4 \times 10^{10}/m^3$.

(i) What type of semiconductor is obtained on doping?

(ii) Calculate the new electron and the hole concentration of the semiconductor.

(iii) How does the energy gap vary with doping?

13. State the principle of working of a p-n diode as a rectifier. Explain with the help of a circuit diagram, the use of a p-n diode as a full wave rectifier. Draw a sketch of the input and output waveforms.

14.(a) Distinguish between an intrinsic semiconductor and a p-type semiconductor. Give reason why a p-type semiconductor is neutral although $n_h \gg n_e$ ?

(b)Explain how the heavy doping of both p- and n-sides of a p-n junction diode results in the electric field of the junction being extremely high even with a reverse bias voltage of a few volts.

15. In the following diagram 'S'is a semiconductor. Would you increase or decrease the value of R to keep the reading of the ammeter A constant when S is heated? Give reason for your answer.
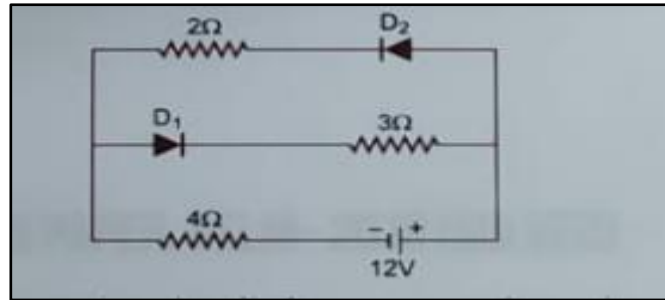


16.Two semiconductor materials X and Y shown in the alongside figure, are made by doping a germanium crystal with indium and arsenic respectively. The two are joined end to end and connected to a battery as shown.

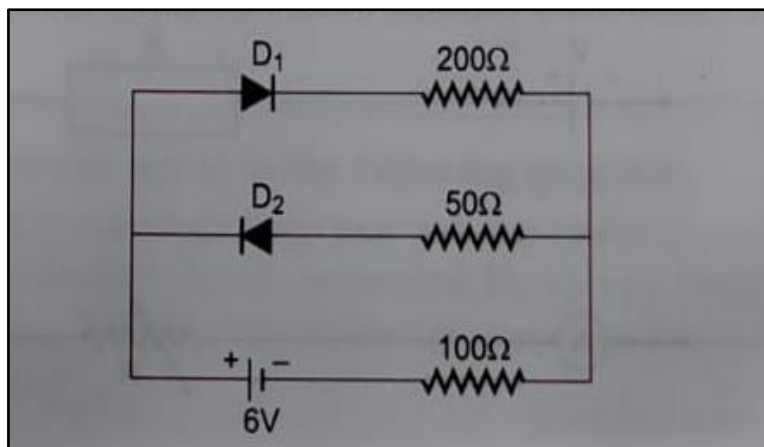(i) Will the junction be forward biased or reverse biased?

(ii) Sketch a V-I graph for this arrangement.



17. The circuit shown in figure has two oppositely connected ideal diodes connected in parallel. Find current flowing through each diode in the circuit.

18. The circuit shown in the figure contains two diodes each with a forward resistance of 50 ohm and infinite backward resistance. Calculate the current in the 100 ohm resistance.



19. The number of silicon atoms per $m^3$ is $5\times10^{28}$. This is doped simultaneously with $5\times10^{22}$ atoms per $m^3$ of Arsenic and $5\times10^{20}$ atoms of Indium. Calculate the no. of electrons and holes given that $n_i = 1.5\times10^{16}$ per $m^3$. Is the material n type or p type?

20. **CASE STUDY QUESTION**

A p-n junction allows current to pass only when it is forward biased. This property of diode is made use of to rectify alternating voltages. If an alternating voltage is applied across a load only during the half cycles of ac input during which the diode is forward biased. To get output rectified voltage corresponding to both positive as well as negative half of ac supply we arrange the circuit using two diodes. Such arrangement is called full wave rectifier.

Output of full wave rectifier is unidirectional but it does not have a steady value. To get steady d.c output we use a filter.
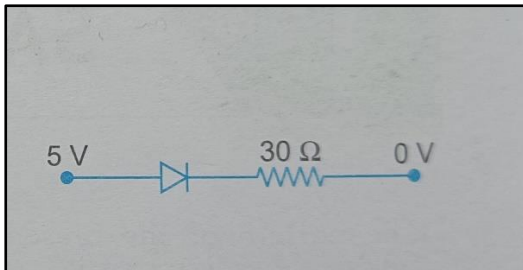
(i) A rectifier is an electronic arrangement, which

a) Transforms ac into unidirectional current.

b) Transforms dc into ac

c) both (a) and (b)

d) None of these

(ii)A pn junction diode has a resistance 20 ohm when forward biased and $2\times10^5$ ohm when reverse biased. The current in the diode for the arrangement shown will be



a) 0.4 A     b) 1/6 A          c) 0.1 A          d) 25 μA



(iii)  What is the correct circuit diagram of a half wave rectifier ?

(iv)  Select the correct statement :
  (a)  In a full wave rectifier two diodes work in a complimentary mode.
  (b)  In a full wave rectifier two diodes work simultaneously.
  (c)  The efficiency of full and half wave rectifier is same.
  (d)  The full wave rectifier is bidirectional.

### INVESTIGATORY PROJECT:

Submit the first draft of investigatory project as per the topic allocated (group wise) in the class.

**PSYCHOLOGY**

MCQ CHAPTER 1 & 2



1.          Which type of personality assessment is being depicted in the above picture?

A. Projective Technique
B. Psychometric Tests
C. Behavioral Analysis
D. Self-report Measures

2. Which of the following is NOT a characteristic of this test?

It reveals the unconscious mind.
It can be conducted only on an individual basis.
Its interpretation is objective.
The stimuli are unstructured.

3. Identify the name of the test from the options given below.

Thematic Appreciation Test

Thematic Apperception Test

Theatre Apperception Test

Theatre Appreciation Test

4. which of the following statements are NOT true of this test?

i. In the first phase, called performance proper, the subjects are shown the cards and are asked to tell what they see in each of them.

ii. The second phase is called inquiry.

iii. Each picture card depicts one or more people in a variety of situations.

iv. The subject is asked to tell a story describing the situation presented in the picture.

Choose the correct option:

i, ii

iii, iv

i, ii, iii

ii, iv

5. Which of the following is NOT a drawback of this test?

It requires sophisticated skills and specialised training

It has problems associated with reliability of scoring

It has problems associated with validity of interpretations

It is an indirect measure of assessment.

6.      Identify the stimuli that are used in such kinds of tests as given in the above picture.

Stories

Cartoons

Ink blots

Picture cards

7.      Nafisa feels that she is liked by her peers in class. This reflects that she _____.

is high on self-efficacy

is high on social self-esteem

possesses a high IQ

is an introvert

8.      Discrepancy between the real self and ideal self often results in _____.

self-actualisation

self-regulation

unhappiness and dissatisfaction

intrapsychic conflicts

9.      If an individual is fat, soft and round along with a temperament that is relaxed and sociable, then he/she is said to have the characteristics of an:

Endomorph

Extrovert

Ectomorph

Mesomorph

10.     Gurmeet was given a personality test to assess how he expresses aggression in the face of a frustrating situation. Identify the test most suitable for this.

Rosenzweig Picture Frustration test

Eysenck Personality questionnaire

Thematic Apperception Test

16 Personality Factors Test

11.     According to Karen Horney the origin of maladjustment can be traced to _____.

 the inferiority feelings of childhood.

basic anxiety resulting from disturbed interpersonal relations.

overindulgence of the child at early stages of development.

failure to deal with intrapsychic conflicts.

12.     An individual's sole concern with the satisfaction of _____ needs would reduce him/her to the level of animals.

survival

esteem

security

belongingness

Diya is a hard working girl who shows dedication, perseverance and perseverance. All your actions are intentional. Such qualities focus on the _____ aspect of integrative intelligence.

a) social skills

b) cognitive ability

c) Entrepreneurship

d) Emotional abilities

Name the psychologist who proposed the concept of IQ.

[A]. Alfred Binet

[B]. Theodore Simon

[C]. William Stern

[D]. Jack Naglieri

How is intelligence quotient measured?

[A]. $IQ = MA + CA \times 100$

[B]. $IQ = CA/MA \times 100$

[C]. $IQ = MA/CA \times 100$

[D]. $IQ = MA \times CA \times 100$

The structure of the intelligence model is

[A]. Howard Gardner

[B]. Arthur Jensen

[C]. J.P. Guildford

[D]. Charles Spearman

Riya has very good verbal reasoning skills and is very interested in reading. She is more likely to succeed than

[A]. Athlete

[B]. Journalists

[C]. Engineers

[D]. Farmers

_____ Binet scale revised by Stanford University for US schoolchildren.

[A]. Changer

[B]. Spearman

[C]. Terman

[D]. Thurstone

Spearman says there are generative possibilities that humans use in adapting to different kinds of intellectual tasks. This factor is

[A]. Specific Factor

[B]. General Factor

[C]. Multi Factor

[D]. None of the above

_____ refers to an individual's potential skill acquisition potential.

[A]. Intelligence

[B]. Aptitude
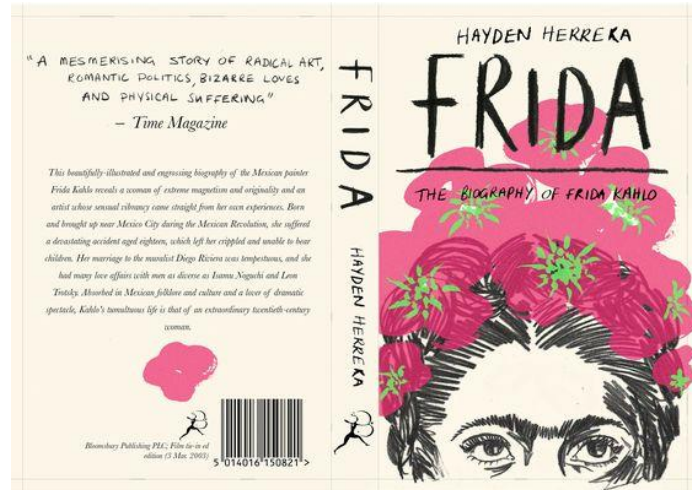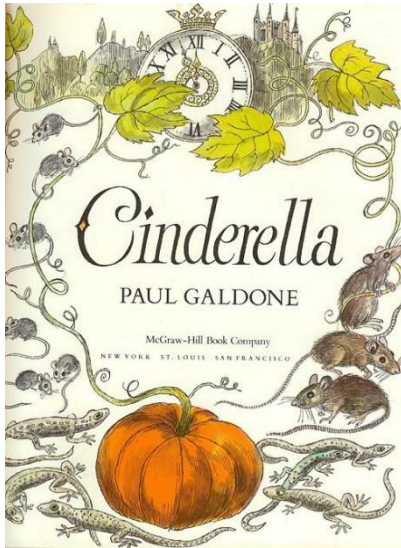
[C]. Interests

[D]. Personality

Empirical Intelligence

[A]. Analysis of information

[B]. The ability to cope with the environment

[C]. Creative use of past experience

[D]. None of the above

## PROJECT

Make a book cover on the life and development of any one psychologist as mentioned in chapter 1 and 2.

Use A3 size sheet to make the book cover. The book cover has to be handmade and should depict the theory/ recognition/work of the psychologist that has been chosen.

For reference:



Inside the book cover the following information has to be provided.

A.   Life history
B.   Prestigious awards and recognitions
C.   Development of theory
D.   Relevance of theory in the current scenario

PRACTICAL

Completion of the practical

1.  SCQ
2.  SCAT
3.  MPI
4.  AISS

RESEARCH WORK

Finalize research topic for case study file.

INTERNSHIP

 All the students have registered themselves for the Fortis healthcare internship.

A brief report of the internship and the learnings is to be attached in the case study file.

## POLITICAL SCIENCE

**A .  Project Work: 20 Marks**

**Class will be divided into six groups with four / five students in each group  of 4 students.**

Group I       : **Environment : Crisis and solutions**
Group II      : **Security : Burning global need and role of Leaderhip**
Group III     : **Foreign Policy : Need and importance**
Group IV     : **Niti Aayog : Thinking tank of government**
Group V      : **Coalition government : A boon or a bane**
Group VI     : **EU :  Changing phases**
Group VII    : **SAARC : India and its position and role**
Group VIII   : **BRICS : Conflicts and solutions**

## GENERAL GUIDELINES:

- The project is to be done on inter-leaf sheets.
- The total length of the project will be 20-25 pages.
- Students have to preserve the initial drafts of the project as well as any research papers that they may have used.
- Students have to be prepared to give a presentation of the project in the class.
- A summary / synopsis (one page) of the project has to be prepared covering:
  **The objective statement     Their observations and findings     The learning outcomes**
- Any other learning from this exercise such as skills of team work, problem solving, time management, information collection, processing, analysing and synthesizing relevant information to derive meaningful conclusions;
- The projects must be neat and well-presented and must be completely hand-written.
- No whiteners to be used or written matter to be crossed out. In case of any mistakes, redo the sheet.
- Do not number sheets or write dates unless so instructed. ·
- Colour illustrations, maps, charts may be hand drawn or printed (if it is relevant for any aspect of your project) are welcome to make them look attractive.

## Presentation:

**1 . In the form of art form like cartoons, caricatures, posters....digital  prints or sheets**

**2. Spontaneous speeches can also be a part of presentation. Panel discussion by students can also be presented. Role play ,songs, enactment, PPT, video……**

## Details of Project Work

1. The project can be **individual / pair / group of 4-5 each.** The Project can be made on the topics given in the syllabus of a particular class.

2. The suggestive list of activities for project work is as follows: - **Role Play, Skit, Presentation, Model, Field Survey, Mock Drills/Mock Event Mine craft etc.**

**Steps involved in the conduct of the project: Students may work upon the following lines as a suggested flow chart:**

- **Choose a Title/Topic Need of the Study,**
- **Objective of the Study**
- **Hypothesis Content -Timeline, Maps, Mind maps, Pictures, cartoons etc.**
- **(Organization of Material/Data Present Material/Data)**
- **Analysing the Material/Data for Conclusion**
- **Draw the Relevant Conclusion**
- **Bibliography**

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

**Assessment of Project Work:**

• Project Work has broadly the following phases: Synopsis/ Initiation, Data Collection, Data Analysis and Interpretation through activities ,quiz, survey ,interviews and Conclusion.
• Viva

**B. Make a PPT , Case Study & a 2 page Newsletter on any one topic ( R.NO.wise )**

• VENEZUELA CRIISIS                                    R.NO. 1-3
• CHINA – THE NEXT SUPER POWER                R.NO. 4-6
• SYRIAN CIVIL WAR                                    R.NO. 7-9
• INDIA AND UNSC                                      R.NO. 10-12
• REFUGEE CRISIS                                      R.NO. 13-15-
• SUSTAINABLE DEVELOPMENT                      R.NO. 17-21
• KASHMIR:THEN AND NOW                          R.NO. 22-26
• COVID :A CAUSE AND CONSEQUENCE OF GLOBALISATION – R.NO. 27-31

**C. Inculcate habit of reading newspaper and make short reports for further reference .**

**D. Make a sample paper on Book 1 : Contemporary World Politics**

**E. Assignments on Google Classroom to be completed in the register.**

*"The key to success is effort. The bigger the goal, the greater the effort."*