

A decorative border surrounds the central text, featuring various tropical elements: large green monstera leaves, vibrant orange bird-of-paradise flowers, clusters of small yellow berries, and brown coconuts, some of which are cracked open to show white coconut meat.

MOTHER INDIA PUBLIC SCHOOL
BAZPUR

- H A P P Y -

Summer Holiday!

ENJOY

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CLASS – XII COMMERCE (2026-27)

GUIDELINES

Wishing you a joyful and refreshing summer break!

May this holiday be filled with laughter, discovery, and quality time with loved ones. Take time to relax, explore your interests, and enjoy every moment.

Along with fun, use this time to engage in your holiday homework—designed to spark creativity, deepen understanding, and make learning enjoyable. Complete it with sincerity, originality, and pride.

Stay safe, stay curious, and come back recharged, ready for new beginnings!

ACCOUNTANCY

General Instructions:

Students are advised to prepare a separate notebook and do all these questions neat and clean with a proper working notes.

X and Y invested Rs. 20,000 & Rs. 10,000. Interest on capital is allowed @ 6% per annum. Profits are shared in ratio of 2: 3. Profits for year ending 11.3.2015 is Rs. 1,500. Show allocation of profits when partnership deed

(a) Allows interest on capital & deed is silent on treating interest as charge

(b) Interest is-charge against profit.

A and B are partners in business. Their capitals at the end of year were Rs. 48,000 & Rs. 36,000 respectively.

During the year ended March 31st 2015 A's Drawings and B's drawings were Rs. 8, 000 &

Rs. 12, 000 respectively. Profits before charging interest on capital during the year were Rs. 32, 000. Calculate

Interest on partners' capitals @ 10% p.a.

3.A and B entered into partnership on 1st April, 2014 without any partnership deed. They introduced capitals of Rs.

5, 00,000 and Rs. 3, 00,000 respectively. On 31st October, 2014, A advanced Rs. 2,00,000

by way of loan to the firm without any agreement as to interest. The Profit and Loss Account for the year ended

31-03-2015 showed a profit of Rs. 4,30,000 but the partners could not agree upon the amount of

interest on Loan to be charged and the basis of division of profits. Pass a Journal Entry for the distribution of the

Profits between the partners and prepare the Capital A/c of both the partners and Loan A/c of 'A'.

Ram, shyam & Mohan are partners in a firm sharing profit & losses in the ratio of 2:1:2. Their fixed capitals were

Rs. 3, 00,000, Rs. 1, 00,000 an Rs. 2, 00,000 respectively. Interest on capital for the yearending 31st March, 201

was credited to them @ 9% p.a. instead of 10% p.a. The profits for the year before charging interest was Rs. 2,

50,000. Prepare necessary adjustment entry.

R, S and T are partners sharing profits in ratio 4:3:2. Balance Sheet as at 31 March 2026:

Liabilities	₹	Assets	₹
Capitals	Cash	1,20,000	
R	4,00,000	Debtors	2,40,000
S	3,00,000	Stock	3,00,000
T	2,00,000	Furniture	1,80,000
Creditors	1,40,000	Building	2,00,000

Adjustments:

Interest on capital @ 10% p.a.

Salary to S ₹24,000.

Interest on drawings ₹4,000 each partner.

Net profit ₹2,70,000.

Create reserve @ 5% of the divisible profits.

Prepare:

Profit & Loss Appropriation Account

Partners' Capital Accounts

Following are profits of a firm:

2022: ₹80,000, 2023: ₹1,00,000, 2024: ₹1,20,000, 2025: ₹1,40,000

Adjustments:

Abnormal loss ₹20,000 included in 2023.

Manager's salary ₹30,000 not charged.

Goodwill valued at 4 years' purchase of weighted average profits.

Calculate goodwill.

X and Y are partners sharing profits in the ratio of 3 : 2. They decided to admit Z as a partner from 1st April, 2019 on the following terms:

i. Z will be given 2/5th share of the profit.

ii. Goodwill of the firm will be valued at two years' purchase of three years' normal average profit of the firm.

Profits of the previous three years ended 31st March, were:

2019 - Profit ₹ 30,000 (after debiting loss of stock by fire ₹ 40,000).

2018 – Profit ₹ 80,000 (includes voluntary retirement compensation paid ₹ 1,10,000).

2017 - Loss ₹ 1,10,000.

Calculate the value of goodwill.

Calculate the value of goodwill from the following information by applying capitalisation, average profit method and capitalisation super profit method.

Profit for the year 2022-₹50000, 2023-60000, 2024-₹120000, 2025-₹80000, 2026-100000.

Remuneration is to be paid to the partners ₹20,000 per annum. The Capital of employed of the firm ₹6,00,000 the rate of return at the rate 12% per annum.

A and B are partners in a firm sharing profit and losses in the ratio of 3:2. They change their profit sharing ratio in the ratio of 5:3 at the time of change in profit-sharing ratio. The value of goodwill ₹600000. Pass journal entry for the adjustment of goodwill and at the time of change in profit-sharing ratio, the goodwill existing in the books of accounts, ₹2,00,000.

X, Y and Z are partners in a firm, sharing profit and losses in the ratio of 3:2:1. They change their profit sharing ratio the new profit sharing ratio among the partners equally at the time of change in profit sharing ratio the balance sheet show General Reserve ₹120000, Advertisement expenditure ₹60000. Goodwill of the firm Valued ₹500000.

Pass the journal entries for the above adjustment.

1. A and B are partners in a firm, sharing a profit and losses in the ratio of 5:3. They admit C as a new partner in a firm for 1/6th share a firm, which he equally acquired from A and B. Calculate the new profit sharing ratio.

2. X, Y and Z are partners sharing a profit and losses in the ratio of 3:2:1. They admitted W as a new partner in a firm for 1/8th share, which he acquired X and Y 1/16th each. Calculate the new profit sharing ratio.

3. Mohan and Sohan partner sharing a profit and losses in the ratio of 2:3. They admitted Rohit as a partner for 1/5th share a firm, which bring capital ₹200000 and Goodwill ₹120000. Pass the journal entry for the above.

4. A and B are partners sharing profit and losses 3:2. The following balance sheet:

Liabilities	₹	Assets	₹
Capital		Cash	20000
A-200000		Building	100000
B-300000	600000	Furniture	50000
Creditors	50000	Bank	150000
General	20000	Machinery	200000
reserve	100000	Stock	100000
Loan		Debtors	100000
		Bills Receivable	50000
	770000		770000

Adjustment-

- stock depreciate by 10%
- Building appreciated by 5%
- Provision for doubtful debt is to be created on at the rate 5%.
- Out of the total creditors, ₹6000 creditors is not likely to arise.
- Machinery depreciation by 5%
- C admitted in a firm with a capital ₹3,00,000 and bring goodwill for ₹1,00,000
- The new profit sharing ratio among the partners 5:3:2.
- The capital of a and B are adjusted on the basis of C the adjustment is to be made through a current account.
- Prepare revaluation account, partners, capital account, and revised balance sheet.
- 4. X,Y and Z are a partners sharing profit and losses in the ratio of 3:2:1. Y retire and his share taken by X and equally calculate the new profit sharing ratio and gaining ratio.
- 5. A,B and C are partners sharing profit and losses in the ratio of 4:3:2. B retire and his share taken by A $\frac{4}{9}$ and remaining by C . Calculate new ratio and Ganging ratio.
- 6. A ,B and C our partners in the profit sharing ratio of 3:2:1. C retire. The new profit sharing ratio among the partners equally at the time of the retirement of partner, the Goodwill of ₹60,000 an entry.
- 7. P, Q and R are a partners sharing ratio of 3:2:1. Y retire at the time of retirement of a partner. The balance sheet shows a balance:

Liabilities	₹	Assets	₹
Capital		Cash	20000
P-200000		Building	100000
Q-300000		Furniture	50000
R-10000	700000	Bank	150000
Creditors	50000	Machinery	200000
General reserve	20000	Stock	100000
Loan	100000	Debtors	100000
		Bills Receivable	90000
		Profit and losses	60000
	870000		870000

- Building appreciated by 10%
- Furniture decreased by 10%
- Stock reduced by 5%
- Provision for doubtful to be created at the rate 10%
- 5000 including creditors is not likely to arise.
- R retire from the firm. At the time of retirement, the Goodwill of the farm ₹1,20,000.
- The capital account of remaining partners are adjusted at the time of retirement of partner. Capital of the new firm is ₹900000 dear adjustment made through the current account
- Prepare revaluation account, partners, capital account.
- 8. X,Y and Z are partners sharing profit and losses in the ratio of 2:2:1. Z died on 30september2025. At the time of any disease partner, the following adjustment to be made in respect to the disease, partners, capital account.
- The capital balance of the deceased partner.
- Provide interest on capital at the rate 10% per annum
- The share of profit of deceased partner is to be calculated on the basis of last year profit ₹3,60,000.
- Interest on drawing is to be charged at the rate 6% p.a.
- General of shows a balance at the time of disease of partner, ₹6,00,00.
- The capital balance of chat is ₹3,20,000
- The drawing of the partner up to the death is ₹1,00,000.
- Prepare a partners, capital account of deceased partner.

BUSINESS STUDIES

Duration: 06 Hours

Students advice Per day Devote 30 minutes

Students Have to prepare a Project File on the Topic- Marketing Management of the product.

Guidelines for project :

- a. Introduction of the product
- b. Why you have select this product?
- c. Features of the product
- d. Functions of marketing
- e. Brand name of the product
- f. Uses of the product
- g. Competitors of the brand.
- h. Uses of the product
- i. Label and packaging of product
- j. Price list of products
- k. Distribution channels used for the distribution of product
- l. Social messages

The product for each students us given below.

Roll No. Product

- 1&2. Washing Detergent
3&4. Bathing Shop
5&6. Tooth paste
7&8. Mobile phone
9,10 &23. Coffee
11 &12. Air conditioner
24&14. Shoes
15&16,17Chocolate
18,19. &20. Watch
21&22. Nail paint

**If a student face any problem in preparing project file take a help from book chapter-
Marketing management or you can freely contact on this number-88599778582.**

ECONOMICS

- * Guidelines for Project Work in Economics
- *Only one project (one topic) is to be done through out the session.(Make a file)
- *Students may work up on the following line as suggested flowchart.
- *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 theProject
- *Contemporary Employment situation in India.
- *Goods and ServicesTax Act and its Impact on Suggestive List of Projects.
- *Micro and Small Scale Industries
- *Human Capital Formation
- *Balance of Payment
- *Banking System of India

*Comparative study of India and neighbourhood countries.

*Human Development Index

*Monetary policy committee and its functions

*Government Budget & its Components

*Exchange Rate determination-Methods and Techniques

*Self-help group

* Livestock-Backbone of Rura lIndia

*Sarwa Siksha Abhiyan-Cost Ratio Benefits

*Minimum Support Prices

*Waste Management in India-Need of the hour

*Digital India-Step towards the future

Class XII com students

Roll No. 1,4,5,6. Students will prepare project on topic. BOP

Roll No .7,8,10,12 students will prepare project on topic Government Budget

Roll No. 14,15,16,18 students will prepare project on topic Banking System

Roll No.19,24 students will prepare project on topic Human Capital Formation.

Class XII Art

Roll No 1,3,12 students will prepare project on topic Digital India

Roll No.17,24,27 students will prepare project on topic Self-help group

MATHEMATICS

General Instructions: Do all the questions in a separate note book.

Worksheet – I (Relations and Functions)

If $A = \mathbb{R} - \{3\}$ and $B = \mathbb{R} - \{1\}$, consider the function $f: A \rightarrow B$ defined by $f(x) = (x-2)/(x-3)$, for all $x \in A$. Then show that f is bijective.

Show that the function f in $A = \mathbb{R} - \{2/3\}$ defined as $f(x) = (4x+3)/(6x-4)$, is one-one and onto.

If Z is the set of all integers and R is the relation on Z defined as $R = \{(a, b) : a, b \in \mathbb{Z} \text{ and } a - b \text{ is divisible by } 5\}$. Prove that R is an equivalence relation.

Show that the relation R in the set $A = \{1, 2, 3, 4, 5\}$ given by $R = \{(a, b) : |a-b| \text{ is divisible by } 2\}$ is an equivalence relation. Write all the equivalence classes of R .

Worksheet – II (Matrices and Determinants)

1- If A and B are two square matrices each of order 3 with $|A| = 3$ and $|B| = 5$, then $|2AB|$ is :

A. 30 B. 120 C. 225 D. 15

2- If $\begin{vmatrix} 1 & 2 & 3 \\ 2 & 3 & 4 \\ 3 & 4 & 5 \end{vmatrix} = x$, find the value of x .

3- If A is any square matrix of order 3×3 such that $|A| = 3$, Then the value of $|adj A|$ is

(a) 3 (b) 13 (c) 9 (d) 27

4- If for any square matrix A , $A(adj A) =$ then value of $|A|$

(a) 3 (b) 6 (c) 8 (d) 15.

5- If A and B are symmetric matrices, show that $AB + BA$ is symmetric and $AB - BA$ is skew symmetric

6- If $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$, show that $A^2 - 5A + 7I = 0$

7- If $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$, find A^{-1} . Using the inverse, solve the system of linear equations $2x + y - 3z = 1$; $3y + 2z = 1$; $x + 2y - z = 3$.

8- A school wants to allocate students into three clubs: Sports, Music and Drama, under following conditions : The number of students in Sports club should be equal to the sum of the number of students in Music and Drama club. - The number of students in Music club should be 20 more than half the number of students in Sports club. - The total number of students to be allocated in all three clubs are 180. Find the number of students allocated to different clubs, using matrix method.

Case study based questions :

9- A trust fund has ₹ 35000 that must be invested in two different types of bonds, say X and Y. The first bond pays 10% interest p.a. which will be given to an old age home and second one pays 8% interest p.a. which will be given to WWA (Women Welfare Association). Let A be a 1×2 matrix and B be a 2×1 matrix, representing the investment and interest rate on each bond respectively. Based on the above information, answer the following questions.

(i)- If ₹ 15000 is invested in bond X then find A and B

(ii)- If ₹ 15000 is invested in bond X then find the total amount of interest received on both bonds

(iii)- If the trust fund obtains an annual total interest of ₹ 3200, then find the investment in two bonds.
OR

If the amount of interest given to old age home is ₹ 500, then find the amount of investment in bond Y.

ENGLISH

Instructions for Students

Submission Guidelines

The work must be completed neatly on A4 size sheets.

Sheets should be properly arranged and stapled/filed.

Prepare cover page including:

Name of the Student

Class & Section, Roll Number

Subject..... Topic: English Investigatory Assignment

Session...2026

Maintain proper margins on all pages.

Use blue/black ink only for writing.

Handwriting should be neat, readable, and well-spaced.

Each answer should be written in 200–250 words.

Begin each topic on a new page.

Include proper headings and subheadings.

Avoid copying directly from guides or internet sources. Write in your own language after understanding the text.

Criteria of Marks (Total 25 Marks)

Content Understanding & Interpretation 8

Analytical Thinking & Critical Response 5

Vocabulary, Expressions & Literary Devices 4

Organization & Presentation 3

Grammar, Accuracy & Language 3

Creativity & Originality 2

Total = 25 Marks

Roll Numbers	QUESTIONS
1,8,10,20	<p>1. Journey to the End of the Earth</p> <p>1. Analyse how the author uses scientific vocabulary and descriptive expressions to create environmental awareness. How do these expressions influence the reader's understanding of climate change?</p> <p>2. Examine the symbolism of Antarctica as a "time capsule." How does the author connect geological history with the future of humanity?</p> <p>3. How does the narrative style combine factual information with emotional reflection? Discuss the effectiveness of this literary technique.</p> <p>4. Analyse the narrator's perspective toward human civilization after visiting Antarctica. How does isolation shape philosophical thinking?</p> <p>5. "The world's ecological balance depends on human responsibility." Discuss this statement with reference to the chapter and present-day environmental realities.</p> <p>WRITING</p> <p>You are Rohan/Riya of 24, Green Park, Dehradun. You saw an advertisement in a newspaper for the post of an English teacher at Bright Future School. Write a job application along with your biodata applying for the post.</p>
2,11,17,21	2. The Enemy

1. Analyse how the author uses expressions of silence, fear, and tension to build suspense throughout the story.
2. Examine Dr. Sadao's character as both a patriot and a humanitarian. How does the conflict between duty and morality shape his decisions?
3. How do literary devices such as irony and contrast strengthen the impact of the story?
4. Analyse the role of Hana in the story. How does her perspective reflect the emotional and social pressures of wartime Japan?
5. "The true enemy of humanity is hatred, not nationality." Discuss this idea with reference to the story and modern global conflicts.

WRITING

You are applying for the post of sports coach in a school. Write a formal application mentioning your achievements in sports, coaching experience, and leadership qualities.

3,12,22,27

. On the Face of It

1. Analyse how the expressions used by Mr. Lamb reveal his wisdom and positive attitude toward life.
2. How does Derry's vocabulary and tone reflect his psychological insecurity and loneliness?
3. Examine the symbolic significance of the garden in the play. How does it represent freedom and acceptance?
4. Analyse the contrast between Derry's perspective and Mr. Lamb's worldview. What message does the playwright convey through this contrast?
5. "Physical appearance does not define human worth." Discuss the relevance of this statement in today's society with reference to the play.

WRITING

Write an application for the post of office assistant in a private company. Include your computer knowledge, organizational skills, and ability to work in a team.

4,9,13,23,30

4. Deep Water

1. Analyse how the author's use of vivid imagery and fearful expressions helps readers experience his trauma psychologically.
2. How does the author transform fear into determination? Examine the psychological journey presented in the chapter.
3. Identify and analyse the literary devices used to describe the drowning experience. How do they intensify emotional impact?

4.How does the chapter explore the relationship between fear and self-confidence?

5.“Courage is not the absence of fear but the ability to overcome it.” Discuss this statement with examples from the chapter and real life.

WRITING

You saw an advertisement for the post of journalist trainee in a media house. Write a job application describing your writing skills, curiosity about current affairs, and communication abilities.

5,14,18,24,29

5. The Rattrap

1.Analyse how the metaphor of the “rattrap” becomes a philosophical explanation of human greed and temptation.

2.How does the peddler’s language change in different situations? What does this reveal about his personality and emotional state?

3.Examine the role of Edla’s kindness in transforming the peddler. How does the author present compassion as a redemptive force?

4.Analyse the use of irony in the story. How do mistaken identities contribute to the plot and themes?

5.“The world becomes better through empathy and trust.” Discuss this idea with reference to the story and present-day society.

WRITING

You wish to apply for the position of customer care executive in a telecom company. Write a job application highlighting your speaking skills, patience, and problem-solving abilities.

6,15,25,28

Indigo

1.Analyse how the author uses simple yet powerful language to portray Mahatma Gandhi’s leadership qualities.

2.How do expressions related to fear and courage reflect the social condition of the peasants in Champaran?

3.Examine the significance of Rajkumar Shukla’s persistence. How does his character represent determination and social awakening?

4.Analyse the literary style of the chapter as both historical documentation and inspirational narrative.

5.“Real leadership empowers people to become self-reliant.” Discuss this statement with reference to Gandhi’s work in Champaran and modern leadership ideals.

WRITING

You are Karan/Karuna of 18, Raj Nagar, Delhi. Write an application for the post of librarian in a public school. Mention your educational qualifications and interest in books and organization.

7,16,26,30

Poets and Pancakes

1. Analyse how humour and satire are used to present the film industry in a realistic manner.

2. How does the author's observational style contribute to the authenticity of the narrative?

3. Examine the symbolic significance of "pancake makeup" in the chapter. What does it reveal about artificiality in cinema?

4. Analyse the character sketches presented in the essay. How do they reflect human ego, ambition, and insecurity?

5. "The glamour of the film world often hides deeper realities." Discuss this statement with reference to the chapter and contemporary media culture.

WRITING

You are Aman/Aditi, a computer graduate. You came across a vacancy for the post of a software trainee at Tech Vision Pvt. Ltd., Noida. Write a formal job application with biodata.

HINDI

ग्रीष्मकालीन अवकाश हेतु गृहकार्य

कक्षा :- 12

विषय :- हिंदी

1. रचनात्मक कार्य

• किसी एक विषय पर प्रोजेक्ट फाइल बनाएं (शब्द सीमा लगभग 500 शब्द):

क) "भारतीय संस्कृति और युवा पीढ़ी"

ख) "हिंदी भाषा का महत्व"

ग) "जल संरक्षण"

• प्रोजेक्ट में शामिल करें:

• चित्र / चार्ट

• तथ्य और उदाहरण

• स्वयं के विचार

2) ग्रीष्मकालीन अवकाश में 3-4 प्रेरणादायक हिंदी फिल्म या कहानी देखकर:

• उसका सार लिखें

• उससे मिली सीख लिखें

• फिल्म निर्माण की कुछ प्रमुख विशेषता लिखिए

PHYSICAL EDUCATION

Students are required to prepare a Lab manual -Record File neatly in a practical notebook/file.

Practical-1: SAI Khelo India Fitness Test

Prepare a record on the following fitness tests:

• BMI Measurement

• 50 Meter Speed Test

• 600 Meter Run/Walk

• Sit and Reach Test

- Push-Ups / Modified Push-Ups

- Standing Broad Jump

- 4 × 10 Meter Shuttle Run

Include:

- Aim/Purpose

- Equipment Required

- Procedure

- Scoring Method

- Precautions

Practical-2: Yoga for Lifestyle Diseases

Write the procedure, benefits, and contraindications of any two Asanas for each lifestyle disease:

- Obesity

- Diabetes

- Asthma

- Hypertension

- Back Pain

- Arthritis

Also draw a simple labelled diagram of each Asana.

Practical-3: IOA Recognized Game/Sport

Select any one IOA recognized game/sport and prepare:

- Introduction of the Game

- Labelled Diagram of Field/Court & Equipment

- Basic Rules

- Important Terminologies

- Fundamental Skills

HOME SCIENCE

PRACTICAL

(15)

Aim

Preparation and use of one teaching aid to communicate socially relevant messages for children/ adolescent /adults in the community.

Suggestions for Students: It can be chart, poster, PPT, leaflet, Pamphlet. Puzzles can also be made out of drawings that are taken from the newspaper or magazines. Cut pictures can also be used to make a scrap book with cut pictures and drawings. Some ideas for scrap books are a collection called my family, or my school, or my neighborhood, village. Pictures of fruits, animals, household objects, natural things, can be used for several activities like these.

Assessment criteria

Content: - 5

Presentation: - 5

Authentication: - 5

Practical**(10)**

AIM: Preparation of one article of each using applied textile design technique (Tie and Dye). For example: - Handkerchief, Dupatta, Table cloth, Saree, Curtains (set of 2).

Task: Learning the different techniques of tie and dye

Some of the techniques are described below:

Knotting: It is one of the easiest and quickest ways of producing the design. Knots can be tied in several ways depending on the size, shape and grain of the fabric. The best results are achieved on fine fabric. It creates shaded circular patterns.

Knotting method

Binding method

Binding: Certain parts of fabric are bound very tightly with thread before dyeing. Binding can be done in the form of a dot, a band, line, criss-cross or spiral. Designs are like stripes – straight or diagonal (lehria), circles or spots (bandhej).

Assessment criteria

Article making: - 5

Article design: - 3

Article presentation: - 2

INFORMATION TECHNOLOGY (802)

•Solve the attached Question Paper of IT (2025-26) in your Fair notebook.

•**Project work/file:**

Guidelines:

The file should consist of Introduction page, Acknowledgement page, Index, and Query and Programming pages.

- Get print of 15 Java Codes with their outputs.
- Get print out of 15 RDBMS Queries with their output.

Question Paper is attached below in the next page:

General Instructions :

- (i) Please read the instructions carefully.
- (ii) This question paper consists of **24** questions in **two** Sections : **Section A** and **Section B**.
- (iii) **Section A** has Objective Type Questions, whereas **Section B** contains Subjective Type Questions.
- (iv) Out of the given $(6 + 18) = 24$ questions, a candidate has to answer $(6 + 11) = 17$ questions in the allotted (maximum) time of 3 hours.
- (v) All questions of a particular section must be attempted in the correct order.
- (vi) **Section A : Objective Type Questions (30 marks) :**
- (a) This section has **6** questions.
- (b) There is no negative marking.
- (c) Do as per the instructions given.
- (d) Marks allotted are mentioned against each question / part.
- (vii) **Section B : Subjective Type Questions (30 marks) :**
- (a) This section has **18** questions.
- (b) A candidate has to do **11** questions.
- (c) Do as per the instructions given.
- (d) Marks allotted are mentioned against each question / part.

SECTION A

(Objective Type Questions)

(30 Marks)

1. Answer any **4** out of the given **6** questions on Employability skills. $4 \times 1 = 4$

(i) In the acronym 'SMART' to set goals, the letter 'A' implies _____.

(ii) In which year did the Government of India launch the National Action Plan on Climate Change (NAPCC) ?

(A) 2005

(B) 2008

(C) 2010

(D) 2012



- (iii) Which of the following best describes active listening ?
- (A) Listening passively without responding
 - (B) Hearing words without comprehension
 - ✓(C) A process of comprehending and offering support to the speaker
 - (D) Interrupting the speaker to share your experiences
- (iv) A workbook in a spreadsheet refers to :
- (A) A single document only
 - ✓(B) A spreadsheet with one or more worksheets
 - (C) A rectangular box where a row and a column meet
 - (D) The toolbar of the software application
- (v) Why are interpersonal skills important for an entrepreneur ?
- (A) They enable effective collaboration and teamwork.
 - (B) They help in managing finances efficiently.
 - (C) They improve technical knowledge.
 - (D) They ensure personal hobbies are pursued.
- (vi) Which personality trait is characterized by anxiety, self-doubt, depression and excessive worrying ?
- (A) Extraversion
 - (B) Agreeableness
 - (C) Openness
 - (D) Neuroticism

2. Answer any 5 out of the given 7 questions.

5×1=5

(i) Fill in the blank :

The number of attributes in a relation is called the _____ of a relation.

- (A) Degree (B) Cardinality
(C) Tuple (D) Domain

(ii) Write the output of the following Java code :

```
public class JavaProg
{
    public static void main(String[] args)
    {
        String myStr = "Digital-India ";
        System.out.println(myStr.concat("Mission"));
    }
}
```

(iii) In a relational database, when the value of an attribute in a tuple is not known, not available or not applicable, which special value is used to represent it ?

- (A) ZERO (B) SPACE
(C) NULL (D) DEFAULT

(iv) Define e-Governance.

(v) Which of the following is *not* an advantage of using a DBMS ?

- (A) Reduction in data redundancy
(B) Improved data consistency
(C) Improved data availability
(D) Increased data duplication

(vi) Mention one example of any web-based application.

(vii) Which of the following is an invalid variable name in Java ?

- (A) product_1 (B) marks
(C) sales123 (D) total-Marks

3. Answer any 6 out of the given 7 questions.

6×1=6

- (i) Which of the following operators in Java is used to compare two values for equality ?
- (A) = (B) ==
(C) != (D) >
- (ii) Which of the following is **not** a feature of a project ?
- (A) A project is complete when its end objectives are achieved.
(B) A project requires infinite resources.
(C) A project has a beginning and an end.
(D) A project has specific objectives.
- (iii) Which of the following best describes webinars ?
- (A) Pre-recorded video courses
(B) Text-based documents
(C) Real-time lectures with opportunities to ask questions
(D) Interactive games for learning
- (iv) Which loop in Java executes at least once even when the condition is **False** ? Do-while
- (v) What is a major benefit of online learning ?
- (A) It only teaches how to use software.
✓ (B) It allows learners to study at their own location, time and pace.
(C) It discriminates students on the basis of age, caste and qualification.
(D) It is only available in regional languages.
- (vi) How many **bits** of memory does a **short** type variable use in Java ?
- (vii) State whether the following statement is True or False :

The following SQL command is used to delete a relation/table from a relational database.

DELETE TABLE STUDENT;

4. Answer any 5 out of the given 6 questions. 5×1=5

(i) State whether the following statement is True or False :

If there is only one statement in the body of the **for** loop, the set of curly braces enclosing the body can be omitted.

(ii) Consider the following table **Student** :

Table: Student

ID	Name	City	Percentage
101	Rohan	Delhi	76.50
102	Neha	Mumbai	74.00
103	Aarav	Delhi	74.00
104	Neha	Jaipur	75.75

Which attribute can be chosen as the primary key for the above table ?

- (A) Name (B) City
(C) Percentage (D) ID

(iii) Which of the following correctly matches the website with its main focus ?

- (A) **w3schools.com** – Humanities and Social Science courses
(B) **coursera.org** – Drag and drop website development tool
(C) **ncert.nic.in** – Online learning resources like e-books and journals
(D) **udacity.org** – Free grammar testing website

(iv) Which of the following is **not** an aggregate function in SQL ?

- (A) **COUNT ()**
(B) **MAX ()**
(C) **SUM ()**
(D) **UPDATE ()**

(v) In Java, which of the following statements is correct about exception handling ?

- (A) A **catch** block can exist without a **try** block.
- (B) Multiple **catch** blocks can follow a **try** block to handle different types of exceptions.
- (C) The **finally** block is executed only if an exception occurs in the **try** block.
- (D) If no exception occurs in the **try** block, the corresponding **catch** block is executed.

(vi) Which of the following is an application of Database Management Systems (DBMS) ?

- (A) Storing students' academic records
- (B) Creating digital paintings
- (C) Playing audio and video files
- (D) Writing fictional stories

5. Answer any 5 out of the given 6 questions.

5×1=5

(i) What do you understand by methods in Java ?

(ii) What is the purpose of **WHERE** clause in SQL ?

- (A) It adds a new column to a table.
- (B) It filters rows on the basis of condition.
- (C) It sorts the rows in ascending or descending order.
- (D) It renames columns of the table.

(iii) Mention the expanded form of IDE in the context of programming.

(iv) Which SQL command is used to modify the attribute values of one or more tuples in a table ?

- (A) **INSERT**
- (B) **UPDATE**
- (C) **DELETE**
- (D) **SELECT**

(v) Which of the following statements is true about the **switch** statement in Java ?

- (A) The **switch** statement is used to execute a block of code based on the value of an expression.
- (B) The **break** statement is optional and has no effect on the execution of a **switch**.
- (C) If no **case** matches, the program generates an error.
- (D) A **switch** can have only one **case** statement.

(vi) Which of the following correctly describes online shopping ?

- (A) Customers can buy only books and electronics over the Internet.
- (B) Customers can browse items online, place them in a virtual basket and make payment.
- (C) Customers can shop online, but must pay only in cash at delivery.
- (D) Customers can select items online, but cannot have them delivered.

6. Answer any 5 out of the given 6 questions.

5×1=5

(i) Which of the following is known as the National Portal of India ?

- (A) www.india.gov.in
- (B) www.irctc.co.in
- (C) www.goidirectory.nic.in
- (D) www.w3schools.com

(ii) Which of the following statements is true about using the **RESTRICT** option while dropping a column in SQL ?

- (A) The column is dropped even if it is referenced in other tables.
- (B) The column cannot be dropped if it is being referenced in other tables.
- (C) The column is renamed instead of being dropped.
- (D) The column is dropped along with all dependent objects automatically.

- ~~~~~
- (iii) In Java, which operator is used to access the data members and method members of an object ?
- (A) equal (=) operator (B) plus (+) operator
(C) dot (.) operator (D) comma (,) operator
- (iv) Which SQL clause is used to sort data in ascending or descending order ?
- (A) Order By (B) Sort By
(C) Group By (D) Arrange By
- (v) In the Requirement Definition Phase of a Web Application Project, defining the scope involves :
- (A) Designing the user interface
(B) Listing features, goals, and project limitations
(C) Writing and testing code
(D) Deploying and managing the website
- (vi) Consider the Java statement `Book book1 = new Book ();` where `Book` is a class. What is the role of the `new` keyword in the statement ?

SECTION B

(Subjective Type Questions)

(30 Marks)

Answer any 3 out of the given 5 questions on Employability skills. Answer each question in 20 - 30 words.

3×2=6

7. "Listening skill is one of the most important skills in communication."
Mention any two points to support this statement. 2
8. Mention the steps to start LibreOffice Calc in Windows Operating System. 2
9. Define green jobs and state any one benefit of green jobs. 1+1=2
10. Write two benefits of having a positive attitude. 2
11. Write any two benefits of goal setting by an entrepreneur. 1+1=2

Answer any 3 out of the given 5 questions in 20 – 30 words each.

3×2=6

12. Write the output of the following Java code :

2

```
public class SumClass {  
    public static void main(String[] args) {  
        int x, y, sum;  
        x = 5;  
        y = 5;  
        sum = x + y++;  
        System.out.println("y = " + y);  
        System.out.println("sum = " + sum);  
    }  
}
```

13. Write one similarity and one difference between **CHAR** and **VARCHAR** data types in SQL.

1+1=2

14. Mention any two uses of database management systems in banking sector. 1. If used for storing of bank account

1+1=2

15. Write a Java program to perform the following tasks :

2

- Store an employee's basic salary of ₹ 50,000 in a variable named **basicSalary**.
- Calculate the dearness allowance (DA) as 50% of the basic salary and store it in a variable named **allowance**.
- Add the dearness allowance to the basic salary to compute the total salary and store the result in a variable named **totalSalary**.
- Display the value of total salary.

16. (a) Write SQL query to display the list of all the tables stored in a database.

(b) Define Primary Key with respect to DBMS.

1+1=2

Answer any 2 out of the given 3 questions in 30 – 50 words each.

2×3=6

17. Consider the following table **Employee** :

1+1+1=3

Table: Employee

EmpID	Name	Department	Salary
101	Rajesh	HR	50000
102	Anjali	IT	60000
103	Suresh	Finance	55000
104	Priya	Marketing	52000

Write the SQL commands to :

- Update the **Name** of the employee with **EmpID** 102 to "Ananya".
- Display the structure of the **Employee** table.
- Add a new column **JoiningDate** of type **DATE** to the **Employee** table.

18. Rewrite the following Java program using **while** loop :

3

```
public class Monuments {  
    public static void main(String[] args) {  
        for (int i = 0; i < 5; i++) {  
            if (i % 2 == 0)  
                System.out.println("Monument-1: Taj Mahal");  
            else  
                System.out.println("Monument-2: Gateway of India");  
            System.out.println("Monuments of India");  
        }  
    }  
}
```

19. A group of students is developing a **Hospital Management System** as their project. Ravi, one of the project members, has been assigned database-related tasks. He needs to create a table named **Patient** with the following schema :

3

Schema: **Patient(PatientID, PatientName, DateOfBirth)**

Note : **PatientID** is a 5-digit number.

Help Ravi by completing the table given below. Write the Attribute Name in the first column and corresponding appropriate Data Type in the second column.

Attribute Name	Data Type

Answer any 3 out of the given 5 questions in 50 – 80 words each.

3×4=12

20. (a) The following Java code contains errors. Rewrite it correctly, clearly underlining all the corrections made :

```
public class JavaProg {  
    public static void main(String[] args) {  
        int a = 0;  
        b = 15;  
        do (  
            a = a + 3;  
            b = b - 3;  
        } While (a <= b)  
    }  
}
```

- (b) What will be the output of the following Java program when executed?

```
public class CalculateN {
    public static void main(String[] args) {
        int n = 0, m = 4;
        for (int i = m + 5; i >= 6; i--) {
            if (i % 3 == 0) {
                n = n + i;
            } else {
                n = n - i;
            }
            System.out.println("n = " + n);
        }
    }
}
```

2+2=4

21. (a) Write any two advantages of using Online Reservation System.
(b) Mention any two precautions that should be taken while performing Online Transactions. 4
22. Explain the following terms in the context of Java : 4
- (a) Class
 - (b) Exception
 - (c) Array
 - (d) Constructor
23. (a) What will be the output of the following Java program when executed?

```
public class StringOperations {
    public static void main(String[] args) {
        String mystring = "JavaProgram";
        System.out.println(mystring.toLowerCase());
        System.out.println(mystring.replace("Java", "Python-"));
    }
}
```

- (b) Write a user-defined Java method `circleArea()` that takes the radius of a circle as input and returns its area. (Note : Take the value of Pi (π) as 3.14)

2+2=4

24. Consider the following table **STOCK** :

1+1+1+1=4

Table: STOCK

ItemNo	ItemName	Dealercode	Qty	UnitPrice
5001	ERASER SMALL	103	120	5
5002	GEL PEN PREMIUM	101	125	25
5003	BALL PEN 0.25	102	150	15
5006	ERASER BIG	103	100	10
5009	BALL PEN 0.5	102	100	10
5015	GEL PEN CLASSIC	101	200	20
5019	SHARPENER CLASSIC	104	110	5

Write SQL queries for the following requirements :

- Retrieve all details of items from the **STOCK** table, sorted in ascending order of **UnitPrice**.
- Display **ItemNo** and **ItemName** for those items in the **STOCK** table whose **Qty** exceeds 102.
- Retrieve all details of items from the **STOCK** table where **Dealercode** is 102 or **UnitPrice** is less than 20.
- Display each **Dealercode** along with the count of **ItemName** supplied by that dealer.