Dwarka International School

Session 2024-25

Class-XII
HUMANITIES

Full of joy is early Summer,
Growth and warmth and golden light;
Every day is crowned with beauty,
Full of loveliness the night.
Dazzling sunshine brings the roses,
Fills the whole bright world with bloom;
Day and night rejoice together,
Banished now are doubt and gloom.
-Ellwood Roberts

Dear Students and Parents,

As we embark on the summer vacation, I want to remind you of the importance of continued learning and growth during this time away from school.
To ensure that our students remain engaged and academically stimulated, we have assigned summer vacation homework for all classes. This homework is designed to reinforce concepts learned throughout the year and to prepare students for the upcoming academic term.
I urge all students to approach their summer homework with diligence and responsibility. Completing these assignments will not only enhance your academic skills but also help you start the new school year on the right foot.
Parents, your support in encouraging your children to complete their summer homework is invaluable. By working together, we can ensure that our students continue to thrive academically.

GUIDELINES FOR STUDENTS

- Ensure timely submission of holiday homework after the reopening of the school.
- Try to incorporate creativity and innovation.
- Revise all the topics that have been taught by your subject teachers in the new session.
- UT 2 syllabus is provided at the end. Kindly revise.
- UT2 will commence from 22nd July 2024

Wishing everyone a productive and enjoyable summer break! Warm regards.

DWARKA INTERNATIONAL SCHOOL
HOLIDAY HOME WORK
CLASS XII HUMANITIES (2024-25)

ENGLISH CORE-301

A. Q 1 to Q 7 should be done in your English note books.

Q1. Read the lesson 'The Enemy' by Pearl. S. Buck from Vistas and answer the following questions in detail:

a. What was the General's plan to get rid of the American prisoner? Was it executed? What traits of General's character are highlighted in the lesson?

b. What conflicting ideas arise in Dr Sadao's mind after he has brought the wounded American soldier home? How is the conflict resolved?

c. Do you think Dr Sadao's final decision was the best possible one in the circumstances? Why/Why not? Explain with reference to the story, 'The Enemy'

d. What impression do you form about Dr Sadao as a man and as a surgeon on your reading the chapter The Enemy'?

e. Dr Sadao was compelled by his duty as a doctor to help the enemy soldier. What made Hana, his wife, sympathetic to him in the face of open defiance from the domestic staff?

Q2. You are Ankit/Amrita, staying at 4 Pycrofts Road, Chennai. You have come across an advertisement in The Times of India for recruitment of computer engineer trainees by Shivam Software. Apply in response to this advertisement, giving your detailed bio-data (curriculum vitae). Invent all necessary details.

Q3. You are Swati Rai/Swastik Sen of A-45 Vasant Enclave, New Delhi. You are tired of the sermons on cut throat competition, success, chasing goals, accomplishing targets and deadlines. You feel that instead of participating in the rat race it is time to sit, meditate and introspect before plunging into the world of materialism. Taking cues from Pablo Neruda's Keeping Quiet along with your inputs write an article on Introspection: The Need of the Hour.

Q4. You are Josely Mathew, the President of the school book club. The club is organising a drive for promoting reuse of study materials and books. Draft a notice in about 50 words, for the school notice board, addressing students of classes X-XII, informing them about this drive and urging them to contribute to the endeavour. Mention how the donated books would benefit a charitable cause.

Q5. 'Aunt Jennifer's Tigers' exemplifies the eternity and immortality of art which is used as a device to escape from hopelessness and dejection. Perhaps Aunt Jennifer finds comfort in this creative expression, crafting a bold tapestry that will outlive her and Uncle both, and that shows nature's creatures living wild and unafraid, liberated from man-made constraints like marriage. Write an article on the topic 'Art is Immortal' on the basis of the poem as well as your own interpretations.

Q6. Linguistic Chauvinism is a shame, yet history is witness to many such instances of language dominance resulting in the classification of people into the 'oppressor' and 'oppressed'. Little Franz experienced it on the day of the last lesson and wonders if the Germans would make the pigeons sing in German. You being Franz decide to pen down the events of the day. Write a draft in the form of a report.

Cues

Heading-The Last Lesson
Byline- by Franz
First Paragraph- 5Ws-what, when, where, why, who
Second Paragraph-sequence of events, description of events
Third Paragraph- sum up, end on an optimistic note

- **Do not use personal pronouns in your report**

Q7**.** After passing the secondary school examination, a candidate has to make a very difficult choice from a number of streams available to him at the senior school level for further studies. There is not a valid mechanism to assess the suitability of a candidate for a particular stream. Write a letter to the Editor of a national daily emphasising the need for educational counsellors for guidance in this matter in each school. You are Vinita/Vinay, 48, Agra Fort, Agra.

B. Project Work-Board Internal Assessment

(i) Select a topic from the literature syllabus or general affairs and burning topics

The following topics can be taken-

(a) Climate Change- Vistas- Lesson-Journey to the End of the Earth by Tishani Doshi
(b) Racial Discrimination- Vistas- Lesson-Memories of Childhood by Zitkala-Sa and Bama
(c) Child Labour-Flamingo-Lesson- Lost Spring by Anees Jung
(d) Appearances are deceptive-Lesson-On the Face of It by Susan Hill
(e) Adolescent Fantasizing-Lesson-Going Places by A.R. Barton
(f) Childhood Phobia-Lesson-Deep Water by William Douglas
(g) Escapism-Lesson-The Third Level by Jack Finney
(h) Linguistic Chauvinism-Lesson-The Last Lesson by Alphonse Daudet
(i) Economic Disparity-Poetry-A Roadside Stand by Robert Frost
(j) Silence and Introspection-Poetry Keeping Quiet by Pablo Neruda

Format of the Project

The Project can be done individually or in a group. The maximum members in a group should not exceed 4.

- **First Page-**Cover page, school logo, title of project, school details/details of students
- **Second Page-**Statement of purpose/objectives/goals
- **Third Page**-Certificate of completion under the guidance of the teacher.
- **Fourth Page-**Students' input on the topic, their research and interpretation/Essay/Script/Report
- **Fifth Page**- Students' input on the topic, their research and interpretation/ Essay/Script/Report
- **Sixth Page**- Students' input on the topic, their research and interpretation/ Essay/Script/Report
- **Seventh Page**-Students' input on the topic, their research and interpretation/ Essay/Script/Report
- **Eighth Page**-Students' reflections
- **Ninth Page**-Students' reflections
- **Tenth Page**-List of resources/bibliography

Note

The Project Work should be done on A-4 sized sheets and after the completion of the project should be compiled within a file.

UT-2 SYLLABUS

READING SKILLS

FACTUAL/DISCURSIVE PASSAGE

LITERATURE

FLAMINGO

CH-The Last Lesson by Alphonse Daudet
Poetry- Keeping Quiet by Pablo Neruda
Poetry- Aunt Jennifer's Tigers

VISTAS

CH- The Tiger King by Kalki

WRITING SKILLS

Formal Invitation and Replies, Letter to Editor

SUBJECT-POLITICAL SCIENCE

PROJECT WORK

Suggested Topics

1. The End of Bipolarity (R.Nos 1, 17)
2. Contemporary Centres of Power (R.Nos. 2, 18)
3. Contemporary South Asia (R.Nos. 3, 20)
4. International Organizations (R.Nos. 4, 21)
5. Security in the Contemporary World (R.Nos. 6, 22)
6. Environment and Natural Resources (R.Nos. 7, 23)
7. Globalisation (R.Nos. 8, 24)
8. Challenges of Nation Building (R.Nos. 9, 26)
9. Era of One Party Dominance (R.Nos. 10, 27)
10. Politics of Planned Development (R.Nos. 11, 28)
11. India's External Relations (R.Nos. 12, 29)
12. Challenges to and restoration of the Congress System (R.Nos. 5, 13)
13. The Crisis of Democratic Order (R.Nos. 14, 25)
14. Regional Aspirations (R.Nos. 15)
15. Recent Developments in the Indian Politics (R.Nos. 16, 19)

The project should contain:

- Cover Page
- Acknowledgement and certificate
- Index
- Content
- Conclusion
- Bibliography

COVER PAGE

PROJECT REPORT ON ---------- (TOPIC) Submitted in the partial fulfillment of the project work of Class XII Political Science Session: 2024 – 25

By - ---------- Under the supervision Ms. Prachi Nanavaty (PGT Political Science) ----------School ---------- ---------- --------- ---------

ACKNOWLEDGEMENT

I would like to specially thank Ms.----------Principal of---------- --- for her support and encouragement in every endeavour of ours. I would also like to express my gratitude towards my teacher Ms. Prachi Nanavaty for her extended guidance and support throughout the project work. Last but not the least I would like to thank my parents for their love and support. ---------- ----------

CERTIFICATE

This is to certify that the project report of Political Science titled---------- Submitted by ----------of class ---------- --- This project is to be considered as a part of practical Examination

conducted by the School. It is a record of project work carried out under our guidance and supervision at ----------
----------School. The project has been evaluated on ----------
Head of the institution's Name & Signature ---------- ----------

Internal Examiner's Name & Signature ---------- ----------

External Examiner's Name & Signature ----------

Objectives of project work:

- To enable learners to probe deeper, initiate action and reflect on knowledge and skills acquired duringthe course of class XII
- To analyze and evaluate real world scenarios using social constructivism, a theory based onobservation and scientific study
- To become independent and empowered to choose their topic and gather data from a variety of source, investigate varied viewpoints acquired during the course XII and arrive at logical deductions.
- To enquire into, and reflect on, issues independently /in collaboration with others and identify thelimitations
- To develop 21st century skills of communication, cooperation, coordination, critical thinking,creativity and collaboration to produce an extended and independent work.

Project overview:

- The Project work will be implemented for 20 Marks.
- Out of 20 marks, 10 marks are to be allotted to viva voce and 10 marks for project work.
- The project work can be in the form of films, albums, songs, storytelling, debate, Role Play, Skit,Presentation, Model, Field Survey, Mock Drills/Mock Event etc.
- Students can use primary sources available in city archives, Primary sources can also include newspaper cuttings, photographs, film footage and recorded written/speeches. Secondary sources mayalso be used after proper authentication.

Viva-Voce

- At the end of the stipulated term**,** each learner will present the research work in the Project File to the examiner.
- The questions will be asked from the Research Work/ Project File of the learner.
- The project work submitted by the learner is his/her original work.

The marks will be allocated under the following heads:

SL. NO.	COMPONENTS	MARKS ALLOTTED
1	INTRODUCTION / OVERVIEW	2
2	VARIETY OF COMPONENTS	3
3	PRESENTATION	3
4	CONCLUSION	1
5	BIBLIOGRAPHY	1
6	VIVA-VOCE	10
	TOTAL	20

1. **UT-2 Syllabus-** Ch-2 Contemporary Centres of Power
2. Ch-2 Era of One-Party Dominance

SUBJECT-ECONOMICS (030)

A. Prepare a Project file (submitted for Class XII board exam practical Examination) by conducting survey and collect data by designing a Questionnaire/Case study on any one of the following topics:

- Micro and small-scale industries
- Contemporary Employment situation in India.
- Disinvestment policy of the government
- Health expenditure
- Goods and Services Tax Act and its impact on GDP
- Aatmanirbhar Bharat
- Environmental Crises
- Self-help groups
- Budget deficit
- Cashless Economy
- Inclusive Growth Strategy
- Exchange Rate determination-Methods and Techniques
- Balance of payments
- Make in India -The way ahead
- Demonetization
- Indian economy on the eve of independence
- Role of Reserve Bank of India in control of Credit
- Horticulture
- Green Revolution
- Digital India- Step towards the future
- Sarva Shiksha Abhiyan
- Foreign Direct Investment
- Minimum Support Prices
- Public Sector undertaking (BHEL)
- Dairy Farming Poultry Farming
- Rural Development- factors and govt. initiatives
- Liberalization
- Privatization
- Globalization
- Outsourcing
- Special Economic Zone
- Cryptocurrency
- Agricultural Marketing
- Rural Credit/Banking
- NABARD
- Human capital development and economic growth in India
- Poverty
- Sustainable development- A new approach
- Global warming/Ozone Depletion
- Taxes and economic growth in India
- Non-conventional sources of energy Wind power, Hydropower, Solar power
- Money Multiplier/ Credit creation process
- Govt. Budget and its components
- Monetary policy committee and its functions
- Organic Farming-Back to the nature

- Relation between Stock Price Index and Economic health of a nation
- Start-up India and its impact
- Pre-independence role of railways-A critical analysis
- Growth of education sector in India
- Comparative study of China, Pakistan and India
- Any other topic.

Synopsis for the Project

1. Cover Page: Cover page should be very attractive and should contain the name of the school, School mono, Session, Subject, Title, Name of the student (Submitted By), Name of the Teacher, (Submitted To) .
2. Certificate.
3. Acknowledgment.
4. Table of Contents/Index.
5. Main work:
    - Justification of the title.
    - Objectives of the project
    - Introduction/ Prologue
    - Content: Meaning, Features, Causes, Various stakeholders and effect on each of them, Pros and cons of the concept, Major criticism related to the topic (if any), Short-term and long-term implications of economic strategies suggested in the course of research, Data chart, Diagrammatic and Tabular presentation, Newspaper cutting, Graphs, Pictures, photos, Numerical etc.
6. Students' own views/perception/ opinion and learning from the work.
7. Conclusion/ Suggestions/Epilogue.
8. Bibliography.

General Instructions

- Select the topic carefully as it is important to have through knowledge of the content so as to present you confidently in the VIVA.
- The project length should neither be too long nor too small. Generally, it should range between 50-60 pages.
- Matter should be written on one side of the paper and Diagrams /Flow charts/Schedule should be made the flip side only.
- Project should be neat and systematically presented.
- Use new ideas and creativity to make your project attractive.
- Avoid overwriting and use of white ink.
- Case study or Research is compulsory.
- No floral sheets to be used.
    - It will be an independent, self-directed piece of study

WORKSHEET
NATIONAL INCOME /MONEY AND BANKING

Q1. Define consumption goods.

Q2. Foreign embassies in India are a part of India's: (Choose the correct alternative)

(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)

(a) As on 31st 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)

(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:

(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:

(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:

(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.

Q9. How will you treat the following in the calculation of Gross Domestic Product of India? Give reasons for your answer.

(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.

Items	Amount (in Arab)
Subsidies	40
Intermediate costs	200
Compensation of employees	400
Depreciation	50
Royalty	5
Interest	25
Net Change in stocks	20
Indirect Taxes	100
Rent	10
Profits	60

Q11. Explain the ‘varying reserve requirements’ method of credit control by the central bank.

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.

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 lines. Which objective the government is trying to fulfil through the government budget and how? Explain.

Q14. From the following data relating to a firm
(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.

Particulars	Amount (Rs in lakh)
Purchase of raw materials and other inputs from the domestic market	600
Increase in stocks	200
Domestic sales	1800
Imports of raw materials	100
Exports	200
Depreciation	75
Salaries and wages	600
Interest Payments	450
Rent	75
Dividends	150
Undistributed Profits	80
Corporate Profit Tax	20
Indirect Taxes	50

Q15. State giving reasons whether the following will be included in national income:
(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.

(DO WORKSHEET IN REGISTER)

Note- UT-2 Syllabus- Macroeconomics-Unit-1(National Income and related aggregates)
Indian Economic Development- Chapter2 and 3

SUBJECT-GEOGRAPHY

1) Prepare a project of around (15-20) pages with pictures and data on any **one** of the following topics:-

i)Human settlements
ii)Primary activities (across the world)
iii)Conservation of water resources and scarcity of water (with case study)
iv)Conventional sources of energy and conservation
v)Planning and sustainable development in Indian context (with case study)
vi)Environmental pollution -Urban waste disposal

2)Complete your practical files with the following **chapters** as discussed in classroom:-
i)Data – its Sources and Compilation

ii) Data processing

UNIT 2 SYLABUS	Human settlements Human development Primary activities Secondary activities

SUBJECT-HISTORY

1)Prepare a project file of around (30-25 pages)on any of the following topics as discussed in classroom:-

i)Indus valley civilization -Archeological excavation and new perspective
ii)Mahabharata the great epic of India
iii)Buddhism (Life of Buddha)
iv)A comprehensive history of Jainism
v)Global legacy of Gandhian ideas
vi)Architecture of Mughals
vii)Architecture of Vijaynagara Empire

2)Prepare a power point presentation of (15-20 slides) on any **one** of the following topics:-
i) Harappa civilization
ii)Mahajanapadas
iii) Buddhism
iv) Brahminical texts / Varna system

UNIT 2 SYLLABUS	CHAPTER 3 (KINSHIP, CASTE AND CLASS) AND CHAPTER 4(THINKERS ,BELIEF AND BUILDINGS)

SUBJECT – INFORMATICS PRACTICES

Q1. What do you mean by Pandas in Python?
Q2. What do you mean by Series in Python?
Q3. Name a method which is used to create Series in Python. Explain all the parameters of the Series function.
Q4. Write a program in Python to create a series of first five even numbers.
Q5. Write a program in Python to create a Series in Python from the given dictionary.
D = {“Jan” : 31, “Feb” : 28, “Mar” : 31}
Q6. Write the output of the following :

```
import pandas as pd
S1 = pd.Series(range(1,15,3), index=[x for x in "super"])
print(S1)
```

Q7. Name any two attributes of Series in Python.
Q8. Write the output of the following :

```
import pandas as pd
L1 = list("My name is Ravi Kumar")
S1 = pd.Series(L1)
print(S1[0])
print(S1[5])
```

Q9. Complete the code to get the required output :

```
import ______ as pd
_________ = pd.Series([31, 28, 31], index = ["Jan", "Feb", "Mar"] )
print(S1["_______"])
```

OUTPUT :
28
Q10. Write a program to modify the value 5000 to 7000 in the following Series “S1”
A 25000
B 12000
C 8000
D 5000
Q11 Write the output of the following code :

```
import pandas as pd
S1 = pd.Series([2, 5, 7, 10])
print(S1 + 2)
print(S1 * 2)
print(S1 ** 2)
print(S1 - 2)
print(S1 > 2)
```

Q12. Write a program to display the following Series “S1” in descending order.
0 300
1 100
2 1200
3 1700

Q13. Write a program to display multiple of 5 from the given Pandas Series.

0 15
1 2
2 8
3 4
4 1
5 25
6 30

Q14. Differentiate between Pandas Series and NumPy Arrays.

Data Series

Q.1 What is Series?

Q2. Create a Series using List.

Q3. Create Series using a NumPy Array.

Data Frame

Q.1 Which method is used to make a DataFrame?

Q.2 Write the syntax of DataFrame method.

Q.3 Is series is a one-dimensional array which is labelled and can hold any data type?

Q.4 Which function allows us to manipulate data and create new variables in pandas library?

Q.5 Which function is used to read the dataset from a large text file?

Q.6 Are DataFrames container for Series?

Q.7 Data structures in Pandas can be mutated in the terms of ____ but not of _____.

Q.8 Explain Series in pandas. How to Create Copy of Series In pandas?

Q.9 Define Python pandas

Q.10 Mention the Different Types of Data Structures in pandas?

Q.11 What is a pandas DataFrame? How we can create an Empty DataFrame In pandas?

Q.12 Explain Reindexing in pandas.

Q.13 Write the name of methods used with series with their purpose

Q.14 Write the name of methods used with DataFrame with their purpose

Q.15 How can we calculate the standard deviation from the Series?

Q.16 Create a Series using List and Dictionary.

Q.17 Create series using NumPy functions.

Q.18 Get index and values of a series.

Q.19 Rename DataFrame Columns.

Q.20 Filter DataFrame rows using isin.

Q.21 Drop DataFrame Column(s) by Name or Index.

Q.22 Add new column to DataFrame.

Q.23 Get list of the column headers.

Q.24 Generate DataFrame with random values.

Q.25 Select multiple columns from DataFrame.

Q.26 Convert Dictionary into DataFrame.

Q.27 Check that DataFrame is empty.

Q.28 Slice DataFrame using loc .

Q.29 Differentiate loc vs iloc slicing in DataFrame.

Q.30 Add row at end of DataFrame.

Q.31 Get mean(average) of rows and columns of DataFrame .

Q.32 Calculate sum across rows and columns.
Q.33 Delete missing data rows from DataFrame
Q.34 Write python program to find minimum and maximum values of DataFrame
Q.35 Find index position of minimum and maximum values

	Board Practical File Program
1	Create a panda's series from a dictionary of values and a ndarray
2	Given a Series, print all the elements that are above the 75th percentile
3	Create a Data Frame quarterly sales where each row contains the item category, item name and expenditure. Group the rows by the category and print the total expenditure per category.
4	Create a data frame for examination result and display row labels, column labels data types of each column and the dimensions
5	Given the school result data, analyses the performance of the students on different parameters, e.g subject wise or class wise.
6	For the Data frames created above, analyze, and plot appropriate charts with title and legend
	Complete above practical program on system and send mail on chanchalsachdeva2020@gmail.com
	Note: Revise chapter 1 and chapter 2 ,Do the practice of example that s given in Book.

UT 2 SYLLABUS

1. Python Pandas – I
2. Python Pandas – II

SUBJECT: MATHEMATICS

Topic: Art integration with Mathematics

Art and mathematics closely related in terms of reasoning skills and pattern recognition. Artists and Mathematicians, both use geometry in their work, including shapes, symmetry, proportions and measurements.

Keeping all this in mind students will do one of the following project according to their choices:

1. **Using Golden Ratio(1:1.618) create designs of different objects**

(Ref ; https://99designs.com/blog/tips/the-golden-ratio/)

2. **Draw a portrait using Mathematical formulas.**

(Image for ref : https://drive.google.com/file/d/1Hvtd9jDzFHfw6Miv61jB0Ta_5QGHjoVC/view)

3. **Learn how to use Microsoft, Excel for addition, subtraction, multiplication and transpose of matrices.** Make a soft copy of the same and paste screenshot of the output on the file along with the project.
4. **Make a project on Sacred Geometry**

   (Ref: Sacred Geometry: Symbols, Patterns & Shapes of Divine Creation (uniguide.com))

Please note the following Specifications for the above projects:

(i) Page 1 should have your name ,class, section and the PROJECT NAME
(ii) Page 2 should have Certificate where you recognise the people and thank them for the help they have given you in putting this project together.
(iii) Page 3 will be the contents page
(iv) Page 4 should have objective
(v) Page 5 to 9 will cover the project itself
(vi) Please make a proper front and back cover for your project.
(vii) Submit the project in file

CHAPTER – RELATIONS AND FUNCTIONS,MATRICES & DETERMINANTS, DERIVATIVES

NOTE: <u>Do the worksheet in your school register. Work should be done neatly.</u>

Competency Based Questions- MCQ

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

(a) an equivalence relation
(b) reflexive and symmetric but not transitive
(c) reflexive and transitive but not symmetric
(d) reflexive but neither symmetric nor transitive

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

(a) an equivalence relation (b) reflexive and symmetric but not transitive

(c) reflexive and transitive but not symmetric (d) reflexive but neither symmetric nor transitive

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

(a) reflexive and symmetric but not transitive (b) reflexive but neither symmetric nor transitive

(c) an equivalence relation (d) reflexive and transitive but not symmetric

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

(a) reflexive and symmetric but not transitive (b) symmetric but neither reflexive nor transitive

(c) reflexive but neither symmetric nor transitive (d) reflexive and transitive but not symmetric

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

(a) transitive (b) symmetric

(c) reflexive (d) none of these

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

(a) reflexive and symmetric but not transitive (b) reflexive but neither symmetric nor transitive

(c) reflexive and symmetric and transitive (d) reflexive and transitive but not symmetric

7. Let A = {1, 2, 3} and R = {(1, 1), (2, 3), (1, 2)} be a relation on A, then the minimum number of ordered pairs to be added in **R** to make **R** reflexive and transitive.

(a) 4 (b) 2

(c) 3 (d) 1

8. The maximum number of equivalence relations on the set {1 , 2, 3} is

(a) 6 (b) 4

(c) 3 (d) 5

9. Let R be a relation on the set N be defined by {(x, y) : x, y $\in$ N, 2x + y = 41}. Then, R is

(a) reflexive (b) symmetric

(c) transitive (d) none of these

10. Relation R in the set **Z** of all integers defined as R = {(x, y) : x – y is an even integer}is

(a) reflexive and transitive (b) symmetric and Transitive

(c) reflexive and symmetric (d) an equivalence relation

11. Let R be the relation on the set of all real numbers defined by a R b iff $|a - b| \leq 1$. Then, R is

(a) reflexive and transitive (b) symmetric and Transitive

(c) reflexive and symmetric (d) an equivalence relation

12. Consider the non-empty set consisting of children in a family and a relation R defined as aRb if a is sister of b. Then R is

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

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

13. Relation R in the set A = {1, 2, 3, 4, 5, 6, 7, 8} as R = {(x, y) : x divides y}is

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

(c) reflexive but neither symmetric nor transitive (d) symmetric but neither reflexive nor transitive

14. Let L denote the set of all straight lines in a plane. Let a relation R be defined by l_1 R l_2 if and only if l_1 is perpendicular to l_2 ,$\forall$ l_1, $l_2 \in$ L. Then R is

(a) symmetric (b) reflexive

(c) transitive (d) reflexive and symmetric

15. If A = {a, b, c} then number of relations containing (a , b) and (a , c) which are reflexive and symmetric but not transitive is

(a) 4 (b) 3

(c) 2 (d) 1

16. The relation R in the set {1, 2, 3, ... , 13, 14} defined by R = {(x , y) : 3x – y = 0} is

(a) symmetric (b) reflexive

(c) transitive (d) none of these

17. The relation R in the set of natural numbers N defined by R = {(x , y) : x > y} is

(a) reflexive and symmetric but not transitive (b) transitive but neither reflexive nor symmetric

(c) reflexive but neither symmetric nor transitive (d) symmetric but neither reflexive nor transitive

18. A function f : X $\rightarrow$ Y is one-one (or injective), then which of the following is true?

(a) $\forall$ $x_1, x_2 \in X$, f (x_1) = f (x_2) $\Rightarrow x_1 = x_2$. (b) $x_1 \neq x_2 \Rightarrow$f (x_1) $\neq$ f (x_2) .

(c) both (a) and (b) are true (d) none of these

19. A function f : X $\rightarrow$ Y is said to be onto (or surjective), then which of the following is true?

(a) if $\forall$ y$\in$ Y, $\exists$ some x $\in$X such that y = f (x) (b) range of f = Y

(c) both (a) and (b) are true (d) none of these

20. A function f : X $\rightarrow$ Y is said to be bijective , if f is

(a) one-one only (b) onto only

(c) one-one but not onto (d) one-one and onto

21. If a set A contains **m** elements and the set B contains **n** elements with n > m, then number of bijective functions from A to B will be:

(a) m × n (b) m^n

(c) n^m (d) 0

22. Which of the following functions from I(Set of Integers) to itself is a bijection?

(a) $f(x) = x^3$ (b) $f(x) = x + 2$

(c) $f(x) = 2x + 1$ (d) $f(x) = x^2 + x$

23. Let $X = \{-1, 0, 1\}$, $Y = \{0, 2\}$ and a function $f : X \to Y$ defined by $y = 2x^4$, is

(a) one-one onto (b) one-one into

(c) many-one onto (d) many-one into

24. Let $f(x) = x^2 - 4x - 5$, then

(a) f is one-one on R (b) f is not one-one on R

(c) f is bijective on R (d) None of these

25. The function $f : R \to R$ given by $f(x) = x^2$, $x \in R$ when R is the set of real numbers, is

(a) one-one and onto (b) onto but not one-one

(c) neither one-one nor onto (d) one-one but not onto

26. The signum function, $f : R \to R$ is given by $f(x) = \begin{cases} 1, \text{if } x > 0 \\ 0, \text{if } x = 0 \\ -1, \text{if } x < 0 \end{cases}$

(a) one-one (b) many-one

(c) onto (d) none of these

27. Let $f : R \to R$ be defined by $f(x) = \begin{cases} 3x, & \text{if } x \le 1 \\ x^2, & \text{if } 1 < x \le 3 \\ 2x, & \text{if } x > 3 \end{cases}$, then $f(-1) + f(2) + f(4)$ is

(a) 9 (b) 3

(c) 4 (d) 8

28. The greatest integer function $f : R \to R$ be defined by $f(x) = [x]$ is

(a) one-one and onto (b) onto but not one-one

(c) one-one but not onto (d) neither one-one nor onto

29. The function $f : N \to N$, where N is the set of natural numbers is defined by

$$f(x) = \begin{cases} n^2, & \text{if } n \text{ is odd} \\ n^2 + 1, & \text{if } n \text{ is even} \end{cases}$$

(a) one-one and onto (b) neither one-one nor onto

(c) one-one but not onto (d) onto but not one-one

30. The total number of injective mappings from a set with m elements to a set with n elements, $m \le n$, is

(a) n^m (b) m^n

(c) mn (d) $\frac{n!}{(n-m)!}$

INVERSE TRIGONOMETRIC FUNCTIONS
Multiple Choice Questions [MCQ]

1. Domain of $\sin^{-1}(2x-1)$ is

(a) [–1, 1] (b) [–1, 2]
(c) [1, 2] (d) [–1, –2]

2. Domain of $\sin^{-1}x + \cos x$ is

(a) [–1, 1] (b) [–1, 2]
(c) [1, 2] (d) [–1, –2]

3. Domain of $\sin^{-1}\sqrt{x-1}$ is

(a) [–1, 1] (b) [1, 2]
(c) [–1, 2] (d) [–1, –2]

4. Principal value of $\sec^{-1}(-2)$ is equal to

(a) $\frac{2\pi}{3}$ (b) $\frac{5\pi}{6}$
(c) $\frac{4\pi}{3}$ (d) $-\frac{2\pi}{3}$

5. Principal value of $\sin^{-1}\left(\cos\frac{2\pi}{3}\right)$ is equal to

(a) $-\frac{2\pi}{3}$ (b) $\frac{\pi}{6}$
(c) $-\frac{\pi}{6}$ (d) $\frac{2\pi}{3}$

6. Principal value of $\tan^{-1}\left(\tan\frac{15\pi}{4}\right)$ is equal to

(a) 1 (b) $-\frac{\pi}{4}$
(c) $\frac{15\pi}{4}$ (d) $\frac{\pi}{4}$

7. Principal value of $\sec^{-1}\left(2\sin\frac{3\pi}{4}\right)$ is equal to

(a) $\frac{\pi}{4}$ (b) $-\frac{\pi}{4}$
(c) $-\frac{3\pi}{4}$ (d) $\frac{3\pi}{4}$

8. Principal value of $\cot^{-1}\left(\tan\frac{3\pi}{4}\right)$ is equal to

(a) $-\frac{\pi}{4}$ (b) $\frac{\pi}{4}$

(c) $-\frac{3\pi}{4}$ (d) $\frac{3\pi}{4}$

9. Principal value of $\cos^{-1}\left(\cos\frac{3\pi}{2}\right)$ is equal to

(a) $\frac{3\pi}{2}$ (b) $\frac{\pi}{2}$

(c) $-\frac{\pi}{2}$ (d) $-\frac{3\pi}{2}$

10 Principal value of $\sin^{-1}\left(\cos\frac{33\pi}{5}\right)$ is equal to

(a) $\frac{3\pi}{5}$ (b) $\frac{\pi}{10}$

(c) $-\frac{\pi}{10}$ (d) $-\frac{3\pi}{5}$

11. Principal value of $\sin^{-1}\left(\sin\frac{3\pi}{5}\right)$ is equal to

(a) $\frac{2\pi}{5}$ (b) $\frac{3\pi}{5}$

(c) $-\frac{3\pi}{5}$ (d) $-\frac{2\pi}{5}$

12. Principal value of $\cos^{-1}\left(\frac{\sqrt{3}+1}{2\sqrt{2}}\right)$ is equal to

(a) $\frac{7\pi}{12}$ (b) $\frac{5\pi}{12}$

(c) $\frac{11\pi}{12}$ (d) $\frac{\pi}{12}$

13. The value of $\cos(\sin^{-1}x)$ is

(a) x (b) $\sqrt{1-x^2}$

(c) $\frac{\sqrt{1-x^2}}{x}$ (d) $\frac{x}{\sqrt{1-x^2}}$

14. The value of $\cot(\cos^{-1}x)$ is

(a) $\frac{x}{\sqrt{1+x^2}}$ (b) $\sqrt{1-x^2}$

(c) $\frac{\sqrt{1-x^2}}{x}$ (d) $\frac{x}{\sqrt{1-x^2}}$

15. The value of $\sin^{-1}\left\{\cos(\sin^{-1}\frac{\sqrt{3}}{2})\right\}$ is

(a) $\frac{\sqrt{3}}{2}$ (b) $-\frac{\pi}{6}$

(c) $\frac{\pi}{6}$ (d) $-\frac{\sqrt{3}}{2}$

16. The value of $\tan^{-1}\left\{2\cos\left(2\sin^{-1}\frac{1}{2}\right)\right\}$ is

(a) 1 (b) $\frac{3\pi}{4}$

(c) $\frac{1}{2}$ (d) $\frac{\pi}{4}$

17. The value of $\cot\left[\sin^{-1}\left\{\cos\left(\tan^{-1}1\right)\right\}\right]$ is

(a) 1 (b) $\frac{3\pi}{4}$

(c) $\frac{1}{2}$ (d) $\frac{\pi}{4}$

18. The value of $\tan^{-1}\left\{2\sin\left(4\cos^{-1}\frac{\sqrt{3}}{2}\right)\right\}$ is

(a) $\frac{2\pi}{3}$ (b) $\frac{\pi}{3}$

(c) $\frac{\sqrt{3}}{2}$ (d) $\frac{\pi}{6}$

19. The value of $\cos^{-1}\left(\cos\frac{2\pi}{3}\right)+\sin^{-1}\left(\sin\frac{2\pi}{3}\right)$ is

(a) $\frac{2\pi}{3}$ (b) $\frac{4\pi}{3}$

(c) π (d) $\frac{\pi}{3}$

20. The value of $\tan^{-1}\left(\tan\frac{5\pi}{6}\right)+\cos^{-1}\left(\cos\frac{13\pi}{6}\right)$ is

(a) 0 (b) $\frac{5\pi}{6}$

(c) $\frac{13\pi}{6}$ (d) 3π

MATRICES
Multiple Choice Questions [MCQ]

1. Write the number of all possible matrices of order 2 × 2 with entries – 1 or 0 or 1 ?
(a) 27 (b) 64
(c) 81 (d) 54

2. If a matrix has 12 elements, the number of possible orders it can have :
(a) 4 (b) 8
(c) 3 (d) 6

3. A matrix $A = \left[a_{ij}\right]_{3\times 4}$, whose elements are given by $a_{ij} = \frac{1}{2}|i-3j|^2$, then a_{32} is :

(a) $\frac{9}{2}$ (b) $\frac{9}{4}$

(c) $\frac{3}{2}$ (d) 2

4. If $\begin{bmatrix} 3x+7 & 5 \\ y+1 & 2-3x \end{bmatrix} = \begin{bmatrix} 2 & y-2 \\ 8 & 7 \end{bmatrix}$, then the values of x and y are :

(a) $x = -\frac{5}{3},\ y = 5$ (b) $x = -\frac{5}{3},\ y = 7$

(c) $x = \frac{5}{3},\ y = 7$ (d) $x = -\frac{5}{3},\ y = -7$

5. If $\begin{bmatrix} x+y & 2 \\ 5+z & xy \end{bmatrix} = \begin{bmatrix} 6 & 2 \\ 5 & 8 \end{bmatrix}$ the values of x, y and z are:
(a) x = 4, y = 2, z = 0 or x = 2, y = 4, z = 0 (b) x = –4, y = –2, z = 0 or x = 2, y = 4, z = 0
(c) x = 4, y = –2, z = 0 or x = 2, y = 4, z = 0 (d) x = 4, y = 2, z = 0 or x = 2, y = –4, z = 0

6. A matrix $A = [a_{ij}]_{m\times n}$ is called scalar matrix if :
(a) $a_{ij} = 0$ if $i \neq j$. and a_{ij} =k , i = j. (b) where $a_{ij} \neq 0$ if $i \neq j$. and a_{ij} =k , i = j.
(c) $m \neq n$, $a_{ij} = 0$ if $i \neq j$. and a_{ij} =k , i = j. (d) $m = n$, $a_{ij} = 0$ if $i \neq j$. and a_{ij} =k , i = j.

7. If $\begin{bmatrix} 1 & 2 \\ -2 & -b \end{bmatrix} + \begin{bmatrix} a & 4 \\ 3 & 2 \end{bmatrix} = \begin{bmatrix} 5 & 6 \\ 1 & 0 \end{bmatrix}$, then $a^2 + b^2$ =
(a) 12 (b) 21
(c) 20 (d) 22

8. If $3A - B = \begin{bmatrix} 5 & 0 \\ 1 & 1 \end{bmatrix}$ and $B = \begin{bmatrix} 4 & 3 \\ 2 & 5 \end{bmatrix}$, then the matrix A =

(a) $\begin{bmatrix} 3 & -1 \\ 1 & 2 \end{bmatrix}$ (b) $\begin{bmatrix} 3 & 1 \\ 1 & 2 \end{bmatrix}$

(c) $\begin{bmatrix} -3 & 1 \\ -1 & 2 \end{bmatrix}$ (d) $\begin{bmatrix} 3 & -1 \\ 1 & -2 \end{bmatrix}$

9. If A is a square matrix such that $A^2 = A$, then the simplified value of $(I - A)^3 + A$ is equal to

(a) A (b) A^2

(c) I (d) A^3

10. If A is a square matrix such that $A^2 = A$, then the simplified value of $(A - I)^3 + (A + I)^3 - 7A$ is equal to

(a) A (b) A^3

(c) 3A (d) I

DIFFERENTIABILITY

Competency based questions [MCQ]

1. $\frac{d}{dx}\left[\sin^2\left(\sqrt{\cos x}\right)\right] =$

(a) $-\frac{2\sin x.\sin(\sqrt{\cos x}).\cos(\sqrt{\cos x})}{2(\sqrt{\cos x})}$ (b) $-\frac{2.\sin(\sqrt{\cos x}).\cos(\sqrt{\cos x})}{2(\sqrt{\cos x})}$

(c) $-\frac{2\sin x.\sin(\sqrt{\cos x})}{2(\sqrt{\cos x})}$ (d) $-\frac{2\sin x.\sin(\sqrt{\cos x}).\cos(\sqrt{\cos x})}{2}$

2. $\frac{d}{dx}\left[\log \sin \sqrt{x^2+1}\right] =$

(a) $\frac{2x\cos\sqrt{x^2+1}}{\sqrt{x^2+1}.\sin\sqrt{x^2+1}}$ (b) $\frac{x\cos\sqrt{x^2+1}}{2\sqrt{x^2+1}.\sin\sqrt{x^2+1}}$

(c) $\frac{\cos\sqrt{x^2+1}}{2\sqrt{x^2+1}.\sin\sqrt{x^2+1}}$ (d) $\frac{x\cos\sqrt{x^2+1}}{\sqrt{x^2+1}.\sin\sqrt{x^2+1}}$

3. $\frac{d}{dx}\left[2^{-x}\right] =$

(a) $\frac{1}{2^x}\log 2$ (b) $-\frac{1}{2^x}\log 2$

(c) $2^x \log 2$ (d) $-\frac{x}{2^{x+1}}$

4. $\frac{d}{dx}\left[e^{1+\log_e x}\right] =$

(a) 1 (b) 0

(c) $x.\log_e x$ (d) e

5. $\frac{d}{dx}\left[2^{\cos^2 x}\right]=$

(a) $2^{\cos^2 x}.\sin 2x$ (b) $-2^{\cos^2 x}.\log 2.\sin 2x$

(c) $2^{\cos^2 x}.\log 2.\sin 2x$ (d) $-2^{\cos^2 x}.\sin^2 x$

6. $\frac{d}{dx}\left[\log_e \tan\left(\frac{\pi}{4}+\frac{x}{2}\right)\right]=$

(a) $\sec x$ (b) $\tan x$

(c) $\sec x.\tan x$ (d) $\sec^2 x$

7. $\frac{d}{dx}\left[\tan^{-1}\left(\frac{\sqrt{1+x^2}-1}{x}\right)\right]=$

(a) $\frac{\sqrt{1+x^2}}{x}$ (b) $\frac{1}{\left(1+x^2\right)}$

(c) $\frac{x}{\sqrt{1+x^2}-1}$ (d) $\frac{1}{2\left(1+x^2\right)}$

8. $\frac{d}{dx}\left[\sin^{-1}\left(\frac{1}{\sqrt{1+x^2}}\right)\right]=$

(a) $\frac{1}{1+x^2}$ (b) $-\frac{x}{1+x^2}$

(c) $-\frac{1}{1+x^2}$ (d) $-\frac{2x}{1+x^2}$

9. $\frac{d}{dx}\left[\tan^{-1}\left(\sqrt{\frac{1+\sin x}{1-\sin x}}\right)\right]=$ where $0<x<\frac{\pi}{4}$

(a) $-\frac{1}{2}$ (b) $\frac{1}{2}$

(c) $\frac{1+\sin x}{1-\sin x}$ (d) $\frac{1-\sin x}{1+\sin x}$

10. $\frac{d}{dx}\left[\sin^{-1}\left(\frac{\sin x+\cos x}{\sqrt{2}}\right)\right]=$

(a) $\frac{1}{\sqrt{2}}$ (b) $\sqrt{2}$

(c) 1 (d) $-\sqrt{2}$

11. $\frac{d}{dx}\left[x^{\sin x}\right]=$

(a) $x^{\sin x}\left(\cos x+\frac{\sin x}{x}\right)$ (b) $x^{\sin x-1}.\cos x$

(c) $x^{\sin x}\left(\cos x.\log_e x+\sin x\right)$ (d) $x^{\sin x}\left(\cos x.\log_e x+\frac{\sin x}{x}\right)$

12. If $(\cos x)^y=(\sin y)^x$, then $\frac{dy}{dx}=$

(a) $\frac{\log\sin y+y\tan x}{\left(\log\cos x-x\cot y\right)}$ (b) $\frac{\log\sin y+\tan x}{\left(\log\cos x-x\cot y\right)}$

(c) $\frac{\log\sin y+y\tan x}{\left(\log\cos x+x\cot y\right)}$ (d) $\frac{\log\sin y+y\tan x}{\left(\log\cos x-\cot y\right)}$

13. If $y^x=e^{y-x}$, then $\frac{dy}{dx}=$.

(a) $\frac{y^x}{\log y}$ (b) $\frac{\log y}{(1+\log y)^2}$

(c) $\frac{(1+\log y)^2}{\log y}$ (d) $\frac{1}{\log y.(1+\log y)^2}$

14. $\frac{d}{dx}\left[x^{x^x}\right]=$

(a) $x^{x^x}.x^{x-1}$ (b) $x^{x^{x-1}}$

(c) $x^{x^x}.x^x\left[\left(1+\log x\right)\log x\right]$ (d) $x^{x^x}.x^x\left[\left(1+\log x\right)\log x+\frac{1}{x}\right]$

15. If $x=a\left(\theta-\sin\theta\right)$, $y=a\left(1+\cos\theta\right)$, then $\frac{d^2y}{dx^2}$ at $\theta=\frac{\pi}{2}$ is equal to

(a) a (b) $\frac{1}{a}$

(c) $\frac{1}{2a}$ (d) $\frac{2}{a}$

16. If $y=\sqrt{x+\sqrt{x+\sqrt{x+.....\infty}}}$, then $\frac{dy}{dx}=$

(a) $\frac{1}{2y-1}$ (b) $\frac{1}{2y+1}$

(c) $\frac{1}{1-2y}$ (d) $\frac{2}{2y-1}$

17. If $y=\sqrt{\cos x+\sqrt{\cos x+\sqrt{\cos x+.....\infty}}}$, then $\frac{dy}{dx}=$

(a) $\frac{\cos x}{1-2y}$ (b) $\frac{\sin x}{1+2y}$

(c) $\frac{\sin x}{1-2y}$ (d) $\frac{\cos x}{1-2y}$

18. If $y=\left(x+\sqrt{x^2+a^2}\right)^n$, then $\frac{dy}{dx}=$

(a) $\frac{y}{n\sqrt{x^2+a^2}}$ (b) $\frac{ny}{\sqrt{x^2+a^2}}$

(c) $2nx\left(x+\sqrt{x^2+a^2}\right)^{n-1}$ (d) $\frac{y}{\sqrt{x^2+a^2}}$

19. If $x=a(\cos t+t\sin t)$ and $y=a(\sin t-t\cos t)$, $0<t<\frac{\pi}{2}$, then $\frac{d^2x}{dt^2}=$

(a) $a(\cos t-t\sin t)$ (b) $at\sin t$

(c) $t\sin t$ (d) $a(\cos t+t\sin t)$

20. If $y=a\cos(\log x)+b\sin(\log x)$, then

(a) $x^2\frac{d^2y}{dx^2}+x\frac{dy}{dx}-y=0$ (b) $x^2\frac{d^2y}{dx^2}-x\frac{dy}{dx}+y=0$

(c) $x^2\frac{d^2y}{dx^2}+x\frac{dy}{dx}+y=0$ (d) $x^2\frac{d^2y}{dx^2}-x\frac{dy}{dx}-y=0$

21. If $x^m.y^n=(x+y)^{m+n}$, then $\frac{dy}{dx}=$

(a) $-\frac{y}{x}$ (b) $\frac{2y}{x}$

(c) $\frac{x}{y}$ (d) $\frac{y}{x}$

22. If $y=A\cos nx+B\sin nx$, then

(a) $\frac{d^2y}{dx^2}-n^2y=0$ (b) $\frac{d^2y}{dx^2}+n^2y=0$

(c) $\frac{d^2y}{dx^2}+y=0$ (d) $\frac{d^2y}{dx^2}=n^2y^2$

NOTE : UT-2 Syllabus – Chapter 1,2,5

SUBJECT-PSYCHOLOGY

A. Prepare a project file.

General Instructions:

1. The project should be simple, brief and easy.
2. It should be handwritten. The cover page should be neat and simple in presentation. No glitters etc. should be used.
3. More credit will be given to original drawings, illustrations, mind maps and articles from magazines and newspapers.
4. It is mandatory to have case studies / questionnaires in the project but if the topic demands, it may be included.
5. While choosing the topic, the student should keep in mind that he can be questioned on what, when how etc. of the topic during viva.
6. By July11th, 2024 the project has to be submitted.
7. The PROJECT will be evaluated for 20 marks during the FIRST TERMINAL EXAMINATION, 2024 and the marking will be done as per the CBSE guidelines given below.

The project should contain:

- Cover Page
- Acknowledgement and certificate
- Index
- Content (Real Examples, Real forms)
- Assessment Tool
- Conclusion
- Bibliography

COVER PAGE

PROJECT REPORT ON ---------- (TOPIC) Submitted in the partial fulfillment of the project work of Class XII Psychology Session: 2024 – 25

By - ---------- Under the supervision of Ms. Radhika Sharma (PGT Psychology} ----------School ---------- ---------- ---------- ---------- ---------

ACKNOWLEDGEMENT

I would like to specially thank Ms.----------Principal of---------- --- for her support and encouragement in every endeavour of ours. I would also like to express my gratitude towards my teacher Ms. Radhika Sharma for her extended guidance and support throughout the project work. Last but not the least I would like to thank my parents for their love and support. ---------- ----------

CERTIFICATE

This is to certify that the project report of Psychology titled---------- Submitted by ---------- ----------of class ---------- --- This project is to be considered as a part of practical Examination conducted by the School. It is a record of project work carried out under our guidance and supervision at ----------School. The project has been evaluated on ----------

Head of the institution's Name & Signature ---------- ----------

Examiner's Name & Signature ---------- ----------

Note: Do the Project work as assigned below:

1. Write a CASE FILE on any disorder and make a therapy intervention for the same. It should be based on real life case. Include MSE, Case History, Assessment and suggest therapies from the therapies mentioned in NCERT textbook.
2. Watch a movie based on any disorder or disability and write a documentary report in 500 words.

UT-II SYLLABUS:

CH-2 SELF AND PERSONALITY

CH-3 MEETING LIFE CHALLENGES

SUBJECT-PAINTING

a) Folk art on canvas.