

GURU NANAK PUBLIC SCHOOL , PITAMPURA
HOLIDAYS HOMEWORK (2023-24)
CLASS-XII

SUBJECT : ENGLISH

General Instructions:

1. Holidays homework is divided in 2 parts: Part A - Assignment & Part B - Projects.
2. Assignment needs to be done in class register.
3. Separate file for the handwritten Project work.

Part A
ASSIGNMENT
SECTION A (READING)

I Read the passage given below :

- (1) It is popularly believed that wireless technology was created in the year 1880 when Alexander Graham Bell and Charles Sumner Tainter invented the telephone. In that moment they changed the very course of human civilization. Today you would be hard pressed to find an adult (or even a child) who doesn't have access to mobile technology.
- (2) Wireless communication is the transfer of information or power between two or more points that are connected by an electrical conductor. The most common wireless technology uses radio waves. With radio waves, distances can be short, such as a few meters for Bluetooth, or as far as millions of kilometres for deep space radio communications. It encompasses various types of fixed, mobile, and portable applications, including two-way radios, cellular telephones, personal digital assistants (**PDA**s) and the Wireless networking. In fact, all other Wi-Fi devices also emit radio waves.
- (3) Wireless networks are gaining popularity due to their convenience. This ease of connectivity comes at a price. On-going research has identified that signals from a wireless network are potentially dangerous to humans. The constant proximity to wireless signals can cause headaches, insomnia, cardiac arrest and other health issues. Researches have established that Wi-Fi network signals predominantly affect the lower half of the human body and can trigger liver and pancreatic cancer.
- (4) In 2011, the World Health Organisation's International Agency for Research on Cancer classified wireless radiations from cell phones, baby monitors, tablets, cell towers, radar, Wi-Fi etc. as Class 2B carcinogens. This Class 2B carcinogens classification applies to appliances with an operating frequency ranging from 30 kHz to 300 GHz. This means all this while, as we were scrolling through online entertainment, we have been sitting on a ticking time bomb.
- (5) With the Rapid growth of mobile phone devices in the market, technology has developed in such a way that it has ended up creating a horrifying situation for the human body. The normal biological

systems of the human body have not developed in any way to adapt to or protect against harmful radio waves.

(6) This has led to a rise in serious ailments such as diseases of brain like cancer, brain tumours, Alzheimer's disease, Parkinson's disease and so on. Not to forget the short-term effects like hormone disruption, loss of concentration, impairment of cognitive function, behavioural problems, attention deficit and long-term effects like DNA damage, male infertility.

(7) For children, the wireless devices have even more grave consequences because they have thinner bony skulls, more aqueous bodies or brains, higher rate of cell turnover and, hence their neural systems are not completely developed. Beyond physical impairments, children are also vulnerable to stunted socio emotional, cognitive and behavioural development.

(8) Given the ubiquity of technology in today's society and the importance of this issue for policy and practice, it is essential to understand the impacts of technology use on the developing brains and bodies of children in the 21st century in order to guide policy delineating safe and effective use. Parents and guardians should be discerning when it comes to guidelines and research, while governments and groups with policy influence should be cautious of prescribing policy without exploring the evidence base in a holistic and through manner.

(9) International exposure guidelines have been developed to provide protection against establish effects from radiofrequency fields by the International Commission on Non- Ionizing Radiation Protection (ICNIRP, 1998) and the Institute of electrical and electronic engineers (IEEE, 2005). It is up to national authorities to adopt these international standards to protect their citizens against adverse levels of radio wave exposure. They should restrict access to areas where exposure limits may be exceeded.

(10) France has banned all wireless devices, including cell phones from all public schools in September 2018, and California Public Health is actively educating their public regarding risk of harm from wireless radiation. Even in India, several eminent scientists have begun a crusade to caution the Government against the rollout of 5G technology based services in the country.

(11) We can make smarter choices about the way we use technology by making changes in our everyday usage patterns. For instance, adults carrying cell phones (and other wireless devices) can either turn off the device or convert device to 'airplane mode' when servicing or interacting with children and pregnant mothers.

(12) Precautionary measures for adults include increasing the distance, duration and frequency of wireless device use, reducing multiple device use and reducing exposure to high wireless radiation areas. By making minor modification to our daily routines and habits we can try and minimize the harmful effects of wireless technology.

Based on your understanding of the passage, answer the following questions:

Q1 When the author mentions that the invention of wireless technology changed the very course of human civilization, it means that the invention has

Q2 Based on your understanding of the passage, choose the option that lists the correct sequence of the information delivered to the reader about wireless technology

(A) Such as diseases of brain like cancer, brain tumors, Alzheimer's disease, Parkinson's disease and so on.

(B) It is up to notional authorities to adopt these international standards to protect their citizens against adverse levels of radio wave exposure.

(C) Radio waves are the most commonly used wireless technology.

(D) We can make smarter choices about the way we use technology by making changes in our everyday usage patterns.

(E) The ease of connectivity is very convenient but causes health issues to humans.

(F) Wireless technology was invented by Graham Bell and Sumner Tainter in the year 1880

(a) (C) , (F) , (E) , (A) , (B) , (D)

(b) (C) , (F) , (E) , (A) , (D) , (B)

(c) (F) , (C) , (E) , (A) , (D) , (B)

(d) (F) , (C) , (E) , (A) , (B) , (D)

Q3 Author says that given the ubiquity of technology in today's society, it is essential to understand the impacts of technology on developing brains. " Ubiquity " means , being

Q4 What is the central idea of the passage?

Q5 How can we make smarter choices about the way we use technology ?

Q6 According to the passage, wireless technology is one of the most conveniently and universally used invention. How? of the word “discerning”

(a) Most chefs have very discerning sense of taste

Q7 Pick the option showing the CORRECT use of the word.

(b) In the judiciary , discerning critical judgements are based on evidences.

(c) His Championship was perhaps not the most discerning , but it was honest.

(d) He made very discerning decision when the question of buying a new house arose.

Q8 what DOES NOT happen due to wireless technology ?

Q9 What are the precautionary measures recommended by the author?

Q10 List the final feelings of the author with reference to the use of wireless technology.

SECTION B WRITING

Q1 As the Sports Captain of St. Paul's School, Gwalior put up a notice to inform the students about the Inter school Basketball Match to be played in the school.

Q2 National Book Trust organized a week long book fair. You visited the fair and bought a few books. You were pleased with the arrangements, enthusiasm of the visitors and the fact that books have not yet lost their relevance in the world of internet. Write a letter to the Editor to express your feelings.

SECTION - C LITERATURE

Q1 Answer the following questions briefly:

- A. In the poem , “My Mother at Sixty Six” , why did the poet used the image of merry children?
- B. How were the parents and M.Hamel responsible for the children’s neglect of the French language?
- C. How did M.Hamel say farewell to his students and the people of the town?
- D. Value of loving one’s language and not running after other foreign languages is taught in the chapter The Last Lesson. Comment.
- E. “The modern world is full of insecurity, fear, war, worry and stress’. What are the ways in which we attempt to overcome them?

Part B

ACTIVITY WORK(10 marks)

General Instructions:

- I. Project should be pictorial and written in neat handwriting.
- II. Take care of paragraphing, punctuation marks and spellings. Paragraphs should be indented.
- III. Use neatly covered hardboard file and decorate it.
- IV. Page sequence should be strictly followed as:
 - a) Cover page – Title of Project
 - b) School detail & detail of the student
 - c) Statement of Purpose/ objective/goals.
 - d) Acknowledgement
 - e) A report on the topic opted for.
 - f) Learning experience of the student
 - g) List of resources/bibliography

Q 1 Project Work

Choose any two(2) topics from the given topics and write about each in 500 – 1000 words.

1. Internship – a need for teens
2. Life of children in slum area.
3. How pandemic changed education(Interview with teachers and students)
4. The effect of physical education programmes on the wellbeing of senior secondary students.
5. Brand mania and teenagers.

Q2 Lakshadweep, Andaman & Nicobar Islands Project(10 marks)

A lot can be learnt when friends join hands and do things together. So make a group of 5 friends and make a comparative study between Delhi and Lakshadweep and Andaman & Nicobar Islands. Keep the following points in mind

Total no of pages – 20

- Cover page should have Title, Name , class and section & Admission no
- Map of the islands
- Lakshadweep and Andaman & Nicobar Islands Introduction
- Lakshadweep and Andaman & Nicobar Islands Festivals
- River & Water Fall of Lakshadweep and Andaman & Nicobar Islands.
- Tourist Places of Lakshadweep and Andaman & Nicobar Islands.
- Dresses of Lakshadweep and Andaman & Nicobar Islands.
- Lakshadweep and Andaman & Nicobar Islands. Culture

Above points will be covered in brief by all groups.

Choose any one topic and include it in the project

1. Historical references of events wherein Linguistic identity was threatened.(Code- 1.6.1)
2. Role of youth in the upliftment of the weaker sections of the society(Code-4.1.1)
3. Health and Infrastructure and Government initiatives(Code- 1.1.8)
4. Education system(Code- 4.2.3)
5. Endangered species(Code- 1.1.8)

SUBJECT : HISTORY

TASK I **ASSIGNMENT (30 MARKS)**

- 1 **Describe the distinctive features of domestic architecture of Mohenjodaro**
- 2 **Name the religious texts of Jainism.**

- 3 Why do archaeologists and historians find Harappan script enigmatic? Explain reasons.
- 4 When was Rigveda compiled?
- 5 'One of the most distinctive features of the Harappan cities was the carefully planned drainage system.' Elaborate.
- 6 Who questioned the authority of the Vedas?
- 7 Explain the distinctive features of the residential buildings of Mohenjodaro.
- 8 Explain the strategies used by the archaeologists to understand socio-economic differences among the Harappans.
- 9 Explain the strategies for procuring materials by the Harappans for the craft production.
- 10 Describe the opinions of the archaeologists over the central authority of the Harappan Civilisation.
- 11 Why was Mauryan empire regarded as a major landmark in the early Indian history?
- 12 Why is the 6th century BCE often regarded as a major turning point in the early Indian history.
- 13 Why is James Prinsep's contribution considered as the historic development in the Indian epigraphy?
- 14 How were the coins used in the 1st century CE? Give two examples.
- 15 How did Kushana rulers exemplify themselves with the high status?
- 16 How have the Prashastis drawn the factual information about the Gupta rulers?

TASK II
INTEGRATION OF ART IN HISTORY
Code :1.1.10

GROUP	HISTORY	TOPICS
1 – 5	Collage , Mosaic work and written information	CROPS : Lakshadweep, Andaman & Nicobar
6 – 10	Collage , Mosaic work and written information	DANCE FORMS : Lakshadweep, Andaman & Nicobar
11 - 15	Collage , Mosaic work and written information	SUBSISTANCE FARMING : Lakshadweep, Andaman & Nicobar
16 - 20	Collage , Mosaic work and written information	MONUMENTS: Lakshadweep, Andaman & Nicobar
21 - 25	Collage , Mosaic work and written information	LANGUAGE HISTORY: Lakshadweep, Andaman & Nicobar

INSTRUCTIONS :

1. First 2 pages will contain – Roll No. , Student’s name , Map of etc...Lakshadweep, Andaman & Nicobar
2. Number of pages should be 7 in total.

PROJECT TOPIC (10 MARKS)

1. TheIndus Valley Civilization-Archeological Excavations and New Perspectives
2. The History and Legacy of Mauryan Empire
3. “Mahabharat”-TheGreat Epic of India
4. The History and Culture of the Vedic period
5. Buddha Charita
6. A Comprehensive History of Jainism
7. Bhakti Movement-Multiple interpretations and commentaries.
8. “The Mystical Dimensions of Sufism
9. Global legacy of Gandhian ideas
- 10.The Architectural Culture of the Vijayanagar Empire
- 11.Life of women in the Mughal rural society
- 12.Comparative Analysis of the Land Revenue Systems introduced by the Britishers in India
13. The Revolt of 1857-Causes;Planning & Coordination;Leadership,Vision of Unity

14. The Philosophy of Guru Nanak Dev
15. The Vision of Kabir
16. An insight into the Indian Constitution

Expected Checklist for the Project Work:

- Introduction of topic/title.
- Identifying the causes, events, consequences
- 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
- Citation of the materials referred to, in the file in footnotes, resources section, bibliography etc.

SUBJECT : POLITICAL SCIENCE

TASK1

ASSIGNMENT (30 MARKS)

1. Briefly explain bipolar world. (1)
2. Why is the fall of Berlin wall in 1989 treated as the end of Bipolarity? (1)
3. Briefly explain Glasnost (1)
4. In which year the Soviet Union came into being? How many republics were there in USSR? (1)
5. Which state was known as the largest republic in USSR? (1)
6. What was the final and most immediate cause for the disintegration of USSR? (1)
7. Briefly explain Perestroika. (1)
8. Which two republics of USSR declared in 1991 that the Soviet Union had disbanded? (1)
9. In which region was the Nationalist dissatisfaction with the Soviet Union strongest and why? (1)
10. Which institutions directed the Model Shock therapy? (1)
11. How the Soviet Union became a great power after the second world war? (3)
12. In what ways does the present Chinese economy differ from its command economy? (3)
13. What makes the European Union a highly influential regional organization? (3)

14. How can we say that ASEAN is an economic association? (3)
15. How did relations improve after conflict of 1962 between India and China? (4)
16. What led to the evolution of EU from an economic union to an increasingly political one? (4)

GROUP	Political Science	TOPICS
1 – 5	Collage , Mosaic work and written information	Tourism in Lakshadweep, Andaman & Nicobar
6 – 10	Collage , Mosaic work and written information	Parties of Lakshadweep, Andaman & Nicobar
11 - 15	Collage , Mosaic work and written information	Challenges of Development in Lakshadweep, Andaman & Nicobar
16 - 20	Collage , Mosaic work and written information	Government of Lakshadweep, Andaman & Nicobar
21 - 25	Collage , Mosaic work and written information	Religion and Religious Diversity of Lakshadweep, Andaman & Nicobar

TASK 2

ACTIVITY INSTRUCTIONS

ON

INTEGRATION OF ART IN POLITICAL SCIENCE

Code :1.1.10

MM 10

LIST OF TOPICS GROUP WISE

Instructions :

- First 2 pages will contain – Roll No. , Student's name , Map of etc...Lakshadweep, Andaman & Nicobar
- Number of pages should be 6 in total.
- Collage and Mosaic have to be prepared Properly. Information related to topic has to be written in detail and neatly.

TASK 3

Project

General Instructions:

- Project should be a hand written project on A4 size sheets.

2. Project should be summed up in 20-25 pages.
3. It should be well researched based on facts and figures and pictorial.
4. The project must have a Table of contents, Title/ Cover page, Acknowledgement, Bibliography, Analysis with headings and sub-headings.
5. It must also include relevant news clippings, facts and figures, pictures.

Suggested topics for project work:

1. Challenges of Nation Building
2. Politics of planned development
3. United Nations and its organisation
4. India's foreign policy
5. Sardar Patel and Integration of Princely States

SUBJECT : GEOGRAPHY

TASK-1: ASSIGNMENT

M.M= 30

- Q1. The type of interaction between primitive human society and strong forces of nature was termed as? (1)
- Q2. Name the two chief schools of thought of human geography. (1)
- Q3. Write an advantage of cumulative frequency. (1)
- Q4. Define density of population and explain how it is calculated? (1)
- Q5. "Growth is a qualitative change". (T/F) (1)
- Q6. _____ and _____ are two important indices to measure human development used by the United Nations Development Programme (UNDP). (1)
- Q7. What is choropleth method? (1)
- Q8. Write down the name of two regions where gathering is practised. (1)
- Q9. Mention any two limitations of slash and burn agriculture. (1)
- Q10. Which are the two types of intensive subsistence agriculture. (1)
- Q11. Explain the concept of 'Possibilism' with examples. (3)
- Q12. Distinguish between push and pull factors of migration. (3)

Q13. Describe four main pillars of human development. (3)

Q14. Discuss raster and vector data formats. Give examples. (3)

Q15. State the six approaches of human geography. (4)

Q16. “Vast areas of the world have very small population”. Support this statement with five suitable examples.

(4)

MAP SKILL

FUNDAMENTALS OF HUMAN GEOGRAPHY

Map items for identification only on outline political World Map.

Ch-4: Primary Activities

- Areas of subsistence gathering (Fig 4.2)
- Major areas of nomadic herding of the world (Fig 4.4)
- Major areas of commercial livestock rearing (Fig 4.6)
- Major areas of extensive commercial grain farming (Fig 4.12)
- Major areas of mixed farming of the world (Fig 4.14)

Ch-7: Transport, Communication and Trade

- Terminal Stations of Transcontinental Railways- Trans- Siberian, Trans Canadian, Trans- Australian Railways

MAJOR SEA PORTS

- Europe: North Cape, London, Hamburg
- North America: Vancouver, San Francisco, New Orleans
- South America: Rio De Janeiro, Colon, Valparaiso
- Africa: Suez and Cape Town
- Asia: Yokohama, Shanghai, Hong Kong, Aden, Karachi, Kolkata
- Australia: Perth, Sydney, Melbourne

MAJOR AIRPORTS

- Asia: Tokyo, Beijing, Mumbai, Jeddah, Aden
- Africa: Johannesburg and Nairobi
- Europe: Moscow, London, Paris, Berlin and Rome
- North America: Chicago, New Orleans, Mexico City
- South America: Buenos Aires, Santiago
- Australia: Darwin and Wellington

INLAND WATERWAYS

Suez Canal, Panama Canal, Rhine waterways and St. Lawrence seaways

INDIA- PEOPLE AND ECONOMY

Map items for locating and labelling on outline political maps of India.

Ch-1: Population- Distribution, Density, Growth and Composition

State with highest population density & state with lowest population density (2011)

Ch-3: Land Resource and Agriculture

Leading producing states of the following crops: Rice, Wheat, Cotton, Jute, Sugarcane, Tea and Coffee

Ch-5: Mineral and Energy Resources

MINES

- Iron- ore mines: Mayurbhanj, Bailadila, Ratnagiri, Bellary
- Manganese mines: Balaghat, Shimoga
- Copper mines: Hazaribagh, Singhbhum, Khetari
- Bauxite mines: Katni, Bilaspur and Koraput
- Coal mines: Jharia, Bokaro, Raniganj, Neyveli
- Oil Refineries: Mathura, Jamnagar, Barauni

CH-8: International Trade

Mark and label the major sea ports and airports on an outline of India.

- Major Sea Ports: Kandia, Mumbai, Marmagao, Kochi, Mangalore, Tuticorin, Chennai, Vishakhapatnam, Paradwip, Haldia
- International Air Ports: Ahmedabad, Mumbai, Bengaluru, Chennai, Kolkata, Guwahati, Delhi, Amritsar, Thiruvananthapuram & Hyderabad

TASK- 2: PRACTICAL WORK IN GEOGRAPHY- PART II

Guidelines for Geography Practical

1. Practical file must be prepared by students covering all the topics prescribed in the practical syllabus.
2. The file should be completely handwritten with a cover page, index page and acknowledgement.
3. All statistical diagrams and maps should be drawn neatly with appropriate headings, scale, index etc. Data to draw statistical diagrams can be taken from the NCERT textbook or Census.
4. The practical file will be assessed both by the internal and external examiners at the time of CBSE practical examinations.
5. A written exam of 22 marks will be conducted based on the above given practical syllabus on the day of the practical exam.
6. Viva will be conducted based on **practical syllabus** only.

TASK- 3: ART INTEGRATED ACTIVITY (CODE- 1.1.3)

M.M= 10

Important Guidelines

1. Prepare a file by students covering all the topics with introduction and index on the following as allocated to your groups.
2. The file should be completely handwritten on A4 white sheets with maximum 5 pages.
3. Works should be drawn neatly with appropriate headings and sketching from nature and surroundings.
4. Use maps, photographs, magazines and newspapers for pasting pictures related to the given topics.

Roll No. 1 to 4: Introduction, Geographical location, geography & geology, time zone and conclusion about Andaman Nicobar with map.

Roll No. 5 to 8: Introduction and geographical location and land (Relief features, soil, climate, vegetation & wildlife), conclusion about Andaman Nicobar with map.

Roll No. 9 to 12: Introduction, biodiversity hotspot, Beaches, Adventurous activities (such as diving, snorkelling, surfing and fishing) and famous sights, conclusion of Andaman Nicobar.

Roll No. 13 to 16: Introduction, geographical location & information and geological information, conclusion about Lakshadweep with map.

Roll No. 17 to 20: Introduction, geographical information, land features (such as relief, soil and climate, vegetation & wildlife), conclusion of Lakshadweep with map.

Roll No. 21 to 24: Introduction, geographical location, Beaches, adventurous activities and famous sights and conclusion of Lakshadweep.

SUBJECT : ECONOMICS

GENERAL INSTRUCTIONS:

- There are two parts of HHW.
- Part A - Assignment consists of 16 questions of 30 marks.
- Part B is Project Work of 10 marks.
- Part C is Activity on Lakshadweep, Andaman & Nicobar Islands of 10 marks.
- All questions are compulsory.
- Attempt questions having originality and creatively.
- Do all the parts on separate A4 sheets.

PART A – ASSIGNMENT

- Q1. Give a quantitative appraisal of India's demographic profile during British period. 1
- Q2. How did the railways affect the structure of Indian economy? (1)
- Q3. Define 'Perspective Plan'. (1)
- Q4. Why was public sector given a leading role in industrial development during the planning period? (1)

- Q5. How has the government shielded small-scale industries from the large firms? (1)
- Q6. 'Import restrictions were imposed in India with the dual objective to save foreign exchange reserves and to be self-sufficient.' Justify the given statement with valid arguments. (1)
- Q7. How 'Expenditure on Migration' is a source of Human Capital Formation? (1)
- Q8. 'Human capital leads to higher productivity and production'. How? (1)
- Q9. 'In order to reduce the availability of credit The Reserve Bank of India aims to make the credit costly for general public.' How RBI could do this? (1)
- Q10. Calculate the value of money multiplier and total deposits created is ₹ 500 crores and LRR is 20%. (1)
- Q11. What are the failures of achieving the objectives of economic planning during 1951-1990? (3)
- Q12. Write a short note on NITI Aayog. (3)
- Q13. Write a short note on educational achievements of India. (3)
- Q14. How central bank plays the role of 'Controller of Credit' in an economy? (3)
- Q15. 'The increase in education expenditure has not been uniform.' Briefly state the important points about government expenditure. (4)
- Q16. How does a commercial bank act as a creator of credit? (4)

PART B – PROJECT

(a) Prepare a project on any one topic

1. Economic impacts of Covid-19
2. Make in India
3. Reserve Bank of India and its functions

(b) Handwritten file must be prepared having maximum of 30 pages.

PART C – ACTIVITY **ACTIVITY CODE: 1.1.8**

1. Prepare an activity comparing the State of Delhi and Union Territories of Lakshadweep, Andaman & Nicobar Islands covering the following concepts as per the given criteria

- | | |
|-------------------|-----------------------------|
| • R. No. 1 to 5 | Demographic situation |
| • R. No. 6 to 10 | Economic profiles |
| • R. No. 11 to 15 | Occupations |
| • R. No. 16 to 20 | Service sector -Tourism |
| • R. No. 21 to 26 | Contribution in India's GDP |
| • R. No. 27 to 32 | Employment |

2. It is a group activity to be done on A4 size sheets having 5-6 pages of information, by every individual student.

SUBJECT : PHYSICAL EDUCATION

- Art-integrated project : highlighting mainstream of the state LAKSHADWEEP, ANDAMAN AND NICOBAR related to sports-games)
- Project file on physical education
 - 1) Fitness test administration for all item
 - 2) Procedure for asanas, benefit and contradictions for each lifestyle diseases (four asanas for each lifestyle disease)
- Senior citizen fitness test
- Any one game for your choice (diagram of field and equipment, rules, terminology & skill)
Games :- Basketball, Football, kho-kho, Volleyball, Handball, Hockey, Cricket

Q1. Define management and planning. (1 marks)

Q2. What is staircase method. (1 marks)

Q3. Explain Cyclic method. (1 marks)

Q4. Write the purpose of community sports. (1 marks)

Q5. What is bye and seeding ? (1 marks)

Q6. Give suggestions to promote participation of women in sports. (1 marks)

Q7. Explain the term menarche. (1 marks)

Q8. What do you mean by correct posture? (1 marks)

Q9. Write a short note on eating disorders. (1 marks))

Q10. What do you mean by physical education. (1 marks)

Q11. Differentiate between intramural and extramural. (3 marks)

Q12. List down the important committees of tournament. (3 marks)

Q13. What is menstrual dysfunction ? Explain in brief ? (3 marks)

Q14. Discuss female athlete trait in detail ? (3 marks)

Q15. Explain any 5 postural deformities with their correct measures. (5 marks)

Q16. Mention all calculations and steps involved to draw a knockout fixture of 27 teams , where 4 teams are to be special seeded . (5 marks)

SUBJECT : PUNJABI

ਕੁੱਲ ਅੰਕ -30

ਕੁੱਲ ਸਫ਼ੇ - 3

* ਹਿਦਾਇਤ :

ਪ੍ਰਸ਼ਨ 1-10 ਦੇ ਸੰਖੇਪ ਉੱਤਰ = 1×10 ਅੰਕ

ਪ੍ਰਸ਼ਨ 11-14 ਦੇ ਉੱਤਰ 30-40 ਸ਼ਬਦਾਂ ਵਿਚ ਲਿਖੋ = 3×4 ਅੰਕ

ਪ੍ਰਸ਼ਨ 15-16 ਦੇ ਉੱਤਰ 100-130 ਸ਼ਬਦਾਂ ਵਿਚ ਲਿਖੋ = 4×2 ਅੰਕ

- 1) ' ਸੰਗ ਤਾਰੇ ਕੁਸੰਗ ਡੇਬੇ ' ਅਖਾਉਤ ਨੂੰ ਵਾਕ ਵਿੱਚ ਵਰਤੋ ।
- 2) 'ਆਰੀ ਨੂੰ ਇੱਕ ਪਾਸੇ ਦੰਦੇ ਜਹਾਨ ਨੂੰ ਦੋਹੀਂ ਪਾਸੀਂ 'ਅਖਾਉਤ ਨੂੰ ਵਾਕ ਵਿੱਚ ਵਰਤੋ ।
- 3) ' ਆਪੇ ਫਾਥੜੀਏ ਤੈਨੂੰ ਕੌਣ ਛੁਡਾਵੇ 'ਅਖਾਉਤ ਨੂੰ ਵਾਕ ਵਿੱਚ ਵਰਤੋ ।
- 4) 'ਵਾਕ ਵਟਾਂਦਰਾ ' ਦਾ ਕੀ ਅਰਥ ਹੈ ?
- 5) ਹਾਂ -ਵਾਚਕ ਵਾਕ ਤੋਂ ਨਾਂਹ -ਵਾਚਕ ਵਾਕ ਵਿੱਚ ਬਦਲੋ : ਉਹ ਕਦੇ ਝੂਠ ਨਹੀਂ ਬੋਲਦਾ।
- 6) ਸਧਾਰਨ ਵਾਕ ਤੋਂ ਪ੍ਰਸ਼ਨ - ਵਾਚਕ ਵਾਕ ਵਿੱਚ ਬਦਲੋ : ਬੱਚਾ ਬਹੁਤ ਪਿਆਰਾ ਹੈ ।
- 7) ਕਰਤਰੀ ਵਾਚ ਤੋਂ ਕਰਮਣੀ ਵਾਚ ਵਿਚ ਬਦਲੋ : ਮੈਂ ਰੋਟੀ ਖਾ ਰਿਹਾ ਹਾਂ ।

* ਪ੍ਰਸ਼ਨ 8 ,9 ,10 ਦੇ ਉੱਤਰ , ਹੇਠਾਂ ਦਿੱਤੇ ਪੈਰੇ ਨੂੰ ਪੜ੍ਹ ਕੇ ਲਿਖੋ :

' ਜਨਮ ਨਾਲ ਸਬੰਧਤ ਰਸਮ ਰਿਵਾਜ ਬੱਚੇ ਦੇ ਪੈਦਾ ਹੋਣ ਤੋਂ ਪਹਿਲਾਂ ਹੀ ਸ਼ੁਰੂ ਹੋ ਜਾਂਦੇ ਹਨ । ਪਹਿਲੇ ਸਮਿਆਂ ਵਿਚ ਪ੍ਰੇਤ ਰੂਹਾਂ ਤੋਂ ਬਚਣ ਲਈ ਗਰਭ ਦੇ ਤੀਜੇ , ਪੰਜਵੇਂ ਤੇ ਸੱਤਵੇਂ ਮਹੀਨੇ ਵਿਚ ਔਰਤ ਦੀ ਝੋਲੀ ਵਿੱਚ ਅਨਾਜ ਪਾਇਆ ਜਾਂਦਾ ਸੀ । ਉਹ ਇਸ ਅਨਾਜ ਨੂੰ ਪਕਾ ਕੇ ਖਾਂਦੀ ਸੀ ਤੇ ਭਾਈਚਾਰੇ ਵਿੱਚ ਵੀ ਵੰਡਦੀ ਸੀ । ਬੱਚਾ ਪੈਦਾ ਹੋਣ ਤੋਂ ਬਾਅਦ ਬੱਚੇ ਅਤੇ ਉਸ ਦੀ ਮਾਂ ਨੂੰ ਧੂਫ਼ ਦਿੱਤੀ ਜਾਂਦੀ ਸੀ ਜਾਂ ਦੀਵਾ ਬਾਲ ਕੇ ਰੱਖਿਆ ਜਾਂਦਾ ਸੀ । ਜਿਹੜਾ ਲਗਾਤਾਰ ਦਸ ਦਿਨ ਜਗਦਾ ਰਹਿੰਦਾ ਸੀ । ਜਨਮ ਤੋਂ ਇਕਦਮ ਪਿਛੋਂ ਬੱਚੇ ਨੂੰ ਕੋਈ ਮਿੱਠੀ ਚੀਜ਼ (ਜਿਵੇਂ ਗੁੜ , ਸ਼ਹਿਦ , ਦੁੱਧ ਆਦਿ) ਚਟਾਈ ਜਾਂਦੀ ਸੀ । ਇਸ ਰਸਮ ਨੂੰ 'ਗੁੜਤੀ ਦੇਣਾ ' ਕਿਹਾ ਜਾਂਦਾ ਹੈ । ਬੱਚੇ ਦੇ ਜਨਮ ਤੋਂ ਪੰਜ ਦਿਨ ਮਗਰੋਂ ' ਪੰਜਵੀਂ ਨਹਾਉਣ ' ਦੀ ਰੀਤ ਹੈ । ਪੰਜਵੇਂ ਦਿਨ ਮਾਵਾਂ ਮੇਥੀ ਜਾਂ ਵਣ ਦੇ ਪੱਤੇ ਉਬਾਲ ਕੇ ਨਹਾਉਂਦੀਆਂ ਸਨ । ਛੇਵੇਂ ਦਿਨ ਚੌਂਕ ਪੂਰ ਕੇ ਮਾਂ ਨੂੰ ਰੋਟੀ ਖਵਾਈ ਜਾਂਦੀ ਸੀ । ਇਸ ਨੂੰ ਪੰਜਾਬ ਵਿੱਚ 'ਛਟੀ ' ਕਹਿੰਦੇ ਸਨ । ਮਾਂ ਨੂੰ ਬਾਹਰ ਵਧਾਉਣ

ਦੀ ਰਸਮ ਤੇਰੇਵੇਂ ਦਿਨ ਕੀਤੀ ਜਾਂਦੀ ਸੀ। ਇਸ ਤਰ੍ਹਾਂ ਮਨੁੱਖ ਦੇ ਜਨਮ ਤੋਂ ਲੈ ਕੇ ਅੰਤ ਤੱਕ ਰਸਮਾਂ- ਰੀਤਾਂ ਚਲਦੀਆਂ ਰਹਿੰਦੀਆਂ ਹਨ । '

8) ' ਗੁੜ੍ਹਤੀ ਦੇਣਾ ' ਕੀ ਹੈ ?

9) ਮਾਂ ਕਦੋਂ ਅਤੇ ਕਿਵੇਂ ਦੇ ਪਾਣੀ ਨਾਲ ਨਹਾਉਂਦੀ ਹੈ?

10) ' ਛਟੀ ' ਕਿਸਨੂੰ ਕਹਿੰਦੇ ਹਨ ?

11) ' ਕਵੀ ਤਾਜ ਮਹਿਲ ਦੀ ਖੂਬਸੂਰਤੀ ਨੂੰ ਇਸ ਦ੍ਰਿਸ਼ਟੀ ਨਾਲ ਵੇਖਦਾ ਹੈ ?

12) ' ਟੁਕੜੀ ਜੱਗ ਤੋਂ ਨਿਆਰੀ ' ਕਵਿਤਾ ਤੇ ਟਿੱਪਣੀ ਕਰੋ ।

13) ' ਪ੍ਰੋਫੈਸਰ ਬੁੱਢੀ ਮਾਈ ਨੂੰ ਪੈਸੇ ਨਾ ਦੇ ਸਕਣ ਦੇ ਕਿਹੜੇ- ਕਿਹੜੇ ਕਾਰਨ ਸੋਚਦਾ ਹੈ ? ?

14) ' ਪਾਠ ਪੁਸਤਕ ਦੇ ਆਧਾਰ 'ਤੇ ਆਪਣੇ ਮਨਭਾਉਂਦੇ ਮੇਲੇ ਬਾਰੇ ਚਰਚਾ ਕਰੋ ।

15) ' ਮੁਕਤਸਰ ਦਾ ਮੇਲਾ ' ਜਾਂ ' ਗੁੱਗੇ ਨਾਲ ਸੰਬੰਧਿਤ ਮੇਲਾ ' ਵਿਸ਼ੇ ਤੇ 100-130 ਸ਼ਬਦਾਂ ਦਾ ਪੈਰਾ ਲਿਖੋ ।

16) ' ਖੂਨ ਦਾਨ ' ਜਾਂ 'ਸਮੇਂ ਦੀ ਪਾਬੰਦੀ ' ਵਿਸ਼ੇ ਤੇ 100-130 ਸ਼ਬਦਾਂ ਦਾ ਪੈਰਾ ਲਿਖੋ ।

* ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਵੱਖ ਵੱਖ ਵਿਸ਼ੇ ਦਿੱਤੇ ਗਏ ਹਨ । ਉਹਨਾਂ ਵਿਸ਼ਿਆਂ ਤੇ 10 ਸਫ਼ਿਆਂ ਦਾ ਪ੍ਰੋਜੈਕਟ । 10 ਅੰਕ

**ਐਕਟਿਵਿਟੀ ਆਪਣੇ ਰੋਲ ਨੰਬਰ ਅਨੁਸਾਰ ਕੀਤੀ ਜਾਵੇਗੀ - 10ਅੰਕ

ਰੋਲ ਨੰ. 1 ਤੋਂ 5— ਅੰਡੇਮਾਨ ਅਤੇ ਨਿਕੋਬਾਰ ਲਕਸ਼ਦੀਪ ਦੇ ਕੋਈ ਵੀ ਪ੍ਰਮੁੱਖ 3 ਤਿਉਹਾਰਾਂ ਉੱਤੇ ਤਿੰਨ ਸਫ਼ਿਆਂ ਦੀ ਐਕਟਿਵਿਟੀ ਤਿਆਰ ਕਰੋ। (1.5.3)

ਰੋਲ ਨੰ.6 ਤੋਂ 10 ਅੰਡੇਮਾਨ ਅਤੇ ਨਿਕੋਬਾਰ ਲਕਸ਼ਦੀਪ ਦੇ ਕੋਈ ਵੀ ਪ੍ਰਮੁੱਖ 3 ਪਹਿਰਾਵਿਆਂ ਉੱਤੇ ਤਿੰਨ ਸਫ਼ਿਆਂ ਦੀ ਐਕਟਿਵਿਟੀ ਤਿਆਰ ਕਰੋ। (5.3.2)

ਰੋਲ ਨੰ. 11 ਤੋਂ 15– ਅੰਡੇਮਾਨ ਅਤੇ ਨਿਕੋਬਾਰ ਲਕਸ਼ਦੀਪ ਦੇ ਕੋਈ ਵੀ ਪ੍ਰਮੁੱਖ 3 ਸੰਗੀਤਕਾਰ ਅਤੇ ਉਨ੍ਹਾਂ ਦੇ ਸ਼ਾਜਾਂ ਉੱਤੇ ਤਿੰਨ ਸਫ਼ਿਆਂ ਦੀ ਐਕਟਿਵਿਟੀ ਤਿਆਰ ਕਰੋ ।
(2.3.1)

ਰੋਲ ਨੰ. 15 ਤੋਂ ਅੱਗੇ – ਅੰਡੇਮਾਨ ਅਤੇ ਨਿਕੋਬਾਰ ਲਕਸ਼ਦੀਪ ਦੇ ਸੱਭਿਆਚਾਰ ਅਤੇ ਕਲਾ ਉੱਤੇ ਤਿੰਨ ਸਫ਼ਿਆਂ ਦੀ ਐਕਟਿਵਿਟੀ ਤਿਆਰ ਕਰੋ। (1.6.1)

SUBJECT : ACCOUNTANCY

MM:30

ASSIGNMENT

General Instructions

1. Q.1 to 10 carries 1 marks each.
2. Q.11 to 14 carries 3 marks each.
3. Q.15 to 16 carries 4 marks each

Q.1 Differentiate between charge on profits and appropriation of profits?

Q.2 Dev withdrew 10,000 on 15th day of every month. Interest on drawings was to be charged 12% per annum. Calculate interest on Drawings.

Q.3 X and Y are partners sharing profits and losses in the ratio of 3: 2 having fixed capital of 1,50,000 and 22,00,000 respectively. The partnership deed provides for interest on capital @ 8% pa. The Net Profit of the firm during 2019-20 was 21,000. In what ratio the appropriation of profit will be made?

Q.4 A and B are partners. The net divisible profit as per Profit and Loss Appropriation A/c is ₹ 2,50,000. The total interest on partner's drawing is ₹ 4,000. A's salary is ₹ 4,000 per quarter and B's salary is ₹ 40,000 per annum. What was the net profit or loss during the year?

Q.5 Is it essential for partners to have partnership deed? Give reason.

Q.6 Does partnership firm has a separate legal entity ?Give reason.

Q.7 State any two rights of a partner besides profits of the business, participating in business ,and Right to be consulted about affairs of the business.

Q.8 X and Y are partners. Y wants to admits his son ,K into business. Can K become the partner of the firm. Give reason.

Q.9 Explain briefly the provisions of the Indian Partnership Act, 1932 if there is no express agreement on (1) Remuneration for firm's work (2) Interest on Advances (3) Interest on Drawings.

Q.10 A,B and C were partners sharing profits and Losses equally. Their fixed capitals were A ₹ 4,00,000, B ₹ 5,00,000 and C ₹ 6,00,000. The partnership deed provided that interest on partners' capital will be allowed 10% per annum. The same was omitted. Pass necessary rectifying entry.

Q.11 A, B and C are partners .On 1st April 2019 their capitals are Rs. 50,000, Rs.80,000 and Rs.1,00 000 respectively. Interest on capital is to be provided @5%p.a. and interest on drawings to be charged @6%p.a. A is allowed a salary of Rs.5000 p.m. and C a salary of Rs. 40000 p.a. B has given loan of Rs.50,000 to firm on 1st October 2019 and C has given his personal premises on rent of Rs.2500 p.m. to the firm. Manager is to be allowed a commission of 10% on net profits before charging his commission. Profits before any of the above provisions amounted to Rs. 3,00,000. Drawings of A wereRs.10,000 and Of C were Rs. 20,000. Prepare P&L appropriation Account.

Q.12 Jain. Gupta and Singh were partners in a firm. Their fixed capitals were: Jain 74,00,000: Gupta 76,00,000 and Singh 10,00,000. They were sharing profits in the ratio of their capitals. The firm was engaged in the processing and distribution of flavored milk. The partnership deed provided for interest on capital at 10% per annum. During the year ended 31st March 2020 the firm earned a profit of 1,47,000. Showing your working notes , prepare Profit and Loss Appropriation Account of the firm

Q.13 David and John were partners in a firm sharing profits in the ratio of 4 : 1. Their capitals on 1.4.2006 were : David Rs.2,50,000 and John Rs.50,000. The partnership deed provided that David will get a commission of 10% on the net profit after allowing a salary of Rs.2,500 per month to John. The profit of the firm for the year ended 31.3.2007 was Rs.1,40,000. Prepare Profit and Loss Appropriation Account for the year ended 31.3.2007

Q.14 Calculate interest on X's drawing :

(a)If he has withdrawn 80,000 and the rate of interest on drawing is 8% per annum.

(b) If he has withdrawn 80,000 on 1stoct. 2006 and the rate of interest on drawing is 8% . Books are closed on 31st march 2021

Q.15 X and Y are partners sharing profits in the ratio of 2:3 with capitals of Rs2,00,000 and Rs 3,00,000

respectively. On 1st October, 2019 X and y gave loans of Rs 80,000 and Rs 40,000 respectively to the firm. Show distribution of profits /losses for the year ended 31st March,2020 in each of the following cases:

Case 1: If the profits before interest for the year amounted to Rs.21,000

Case 2: If the profits before interest for the year amounted to Rs. 3,000

Case 3: if the profits before interest amounted to Rs 5,000

Case 4 :If the loss before interest amounted to Rs.1,400

Q.16 A,B and C entered into a partnership with capital of Rs.80,000, Rs.50,000 and Rs.40,000 respectively. Each partner is entitled to a salary of Rs.8000 p.a. and C a salary of Rs.6000 p.a. They decided to share profits and losses in the ratio of 5:3:2. A guaranteed that the firm would earn a profit of Rs.60,000 before allowing Interest on Capital and partners salaries. The actual profit for the year ending 31st March, 2019 before interest and salaries amounted to Rs.56,000. Prepare Profit and Loss Appropriation A/c and the partner's capital Accounts.

ACTIVITY 1.1.8

Roll no. Activity

1-5 Make a project on NGO in Andaman Nicobar and Lakshadweep island and show its income and expenditure A/c and Receipts and payment A/C.

6-10 Make a project on comparative statements of any Company of Andaman Nicobar and Lakshadweep Island.

11-15 Make a project on Analysis of cash flow statement of any registered company of Andaman Nicobar and Lakshadweep Island.

16-20 Search for most reputed business firm in Andaman Nicobar and Lakshadweep Island and write details of factors that helped it earned Goodwill.

21-23 Calculate Turnover ratios of any registered company of Andaman Nicobar and Lakshadweep island.

24-28 Calculate solvency ratios of any registered company of Andaman Nicobar and Lakshadweep island.

29-32 Make a project on common size statements of any Company of Andaman Nicobar and Lakshadweep island.

Guidelines:

i.project should be of 4 pages.

ii. It should be on A4 size sheets.

iii.It should be handwritten

PROJECT/ PRACTICAL MM:10

1.Download Profit and loss account and Balance Sheet of any registered company for the year ending 31st March,2022 ,take printout and write formulas of all accounting Ratios based on Balance Sheet and Profit and Loss account.

2.Download and take printout of cash flow statement of any registered company for the year ending 31st March ,2022 and write Theory of cash flow statement.

SUBJECT : BUSINESS STUDIES

GENERAL INSTRUCTIONS:

- There are three parts of HHW.
- Part A - Assignment consists of 16 questions of 30 marks.
- Part B is Project Work of 10 marks.
- Part C is Activity on Lakshadweep, Andaman & Nicobar Islands of 10 marks.
- All questions are compulsory.
- Answers must be in your own language showing your creativity.
- Do the assignment on A4 size sheets.
- Project work to be done on separate A4 size sheets. (One side ruled, one side plain)
- Activity to be done on A4 size sheets.

• **PART A – ASSIGNMENT**

Q1. 'A successful enterprise has to achieve its goals effectively and efficiently.' Explain. (1)

Q2. With the introduction of per second call plan by MINT (a leading mobile network Co.), most of the other cellular companies also started offering per the second plan, in order to survive and maintain their market share. (1)

Discuss the feature of management highlighted in the given case. (1)

Q3. Indian Railways has launched a new broad gauge solar power train which is going to be a path breaking leap towards making trains greener and more environment friendly. The solar power DEMU (Diesel Electric Multiple Unit) has 6 trailer coaches and is expected to save about 21,000 liters of diesel and ensure a cost saving of 12,00,000 per year.

Identify and explain the objectives of management achieved by Indian Railways in the above case. (1)

Q4. Deepa is the manager of the northern division of a large corporate house. State in brief at what level does she work in the organisation? (1)

Q5. "A school needs to be managed as much as a hospital or a petrol pump. What managers do in India, the USA, Germany or Japan is the same. How they do it may be quite different. This difference is due to the differences in culture, tradition and history."

Identify and state the characteristic of management highlighted above. (1)

Q6. What is meant by 'management of people'?

Q7. Suhas, the General Manager of Fashionmart, performs the managerial functions of planning, organising, staffing, directing and controlling as an ongoing process. (1)

Q8. What did Taylor want to communicate through mental revolution? (1)

Q9. Distinguish between 'unity of command' and 'unity of direction'. (1)

Q10. Lloyd Co. Ltd. manufactures motorcycles and cars. It has two separate divisions for both of them. Each division has its own incharge, plans and execution resources. On no account the working of two divisions overlaps.

State in brief the principle of management being followed by Lloyd Co. Ltd. (1)

Q11. Explain the importance of gang plank in context of scalar chain principle. (3)

Q12. Explain the scientific technique which is the strongest motivator for a worker to reach standard performance. (3)

Q13. Mehul is selected for the post of software developer in an IT Company. On the first day of his joining Neeraj, his project manager tells Mehul that for interacting with anyone in the company on official matters, he should adopt the formal chain of authority and communication.

In context of the above case:

Identify and explain the principle of management that Neeraj is advising Mehul to follow while doing his job. (3)

Q14. Distinguish between time study and motion study. (3)

Q15. Smita Rai is the director of Namchi Designer Candles, which has 100 per cent women as employees. They also produce varieties of candles. During Diwali, they produce customized candles meant for the occasion. Smita plans her Diwali collection in the month of June itself. She has to then ensure that there is adequate workforce and continuously monitor whether production is proceeding according to plans. Her marketing department also has to be briefed in time to prepare their promotional and advertising campaigns.

At Namchi Designer Candles, the production and sale department coordinate their work, so that production take place according to the demand in the market.

The purchase, production and sales departmental efforts have to be coordinated by Smita for achieving organisational objectives harmoniously. The purchase department is responsible for procuring fabric. This then becomes the basis of the activities of the production department and finally sales can take place. If fabric purchased is of an inferior quality or is not according to the specifications of the production department, further sales will also decline.

What is coordination? Explain the three features of coordination. (4)

Q16. After finishing her BBA degree course, Tahira gets a job of Assistant Manager in a retail company through the reference of her cousin Tanya who works in the same company as a Senior Manager. Taruna decides to guide Tanya through her experience by making her aware of the important facts about management in practice. She tells her that neither the principles of management provide any readymade, straitjacket solutions to all managerial problems nor they are not rigid prescriptions, which have to be followed absolutely.

In context of the above case:

(4)

1. Identify and explain the two features of principles of management mentioned in the above paragraph.
2. Why do the principles of management not provide readymade, straitjacket solutions to all managerial problems?

PART B – PROJECT

- (a) Prepare a project on any one of the topics 'Principles of Management' by observing the application on an organisation, i.e., industrial unit, departmental store, fast food outlet or any other organisation.
or 'Marketing management' by choosing any product of your choice.
- (b) Handwritten file should be prepared having maximum of 30 pages, including the conclusion of observation.
- (c)

PART C – ACTIVITY **ACTIVITY CODE: 1.1.8**

3. Prepare an activity comparing the 'Dimensions of Business Environment' with reference to the State of Delhi and Union Territories of Lakshadweep, Andaman & Nicobar Islands according to the given criteria:
 - R. No. 1 to 5 Economic Environment
 - R. No. 6 to 10 Social Environment
 - R. No. 11 to 15 Technological Environment
 - R. No. 16 to 20 Political Environment
 - R. No. 21 to 26 Social Environment
 - R. No. 27 to 32 Demonetisation Effects
4. It is a group activity to be done on A4 size sheets having 5-6 pages of information, by every individual student.

SUBJECT : MATHEMATICS

ART INTEGRATED PROJECT

- 10 MARKS

- **MAKE A BEAUTIFUL PPT CONTAINING AT LEAST 10 SLIDES**
- **1ST SLIDE – India with pairing state Lakshadweep ,Andaman and Nicobar, SHOWING YOUR NAME , ROLL NUMBER , CLASS AND SECTION , SUBJECT :**
- **2nd slide – map of India , Lakshadweep ,Andaman and Nicobar**
- **3rd slide – Compare land area of India with Lakshadweep .**
- **4th slide - Compare land area of India with Andaman and Nicobar**
- **5th slide – How many colleges are there in Lakshadweep ? Name them with photographs**
- **6th slide- How many colleges are there in Andaman and Nicobar Island ?Name them with photographs .**
- **7th slide and 8th slide – Solve the following question (Roll no 1 to 12)**
In Lakshadweep assume that from a shopkeeper

4090 people like to purchase Shark (Surameen) cost rs 350
3056 like to purchase Red Snapper (Sankarameen) cost rs 175 ,
1078 people like to purchase SALMOM (SALMON MEEN) cost rs 300
** By using matrix notation find how much money a seller will get after selling all items to the market .

- 7th slide and 8th slide – Solve the following question (Roll no 13 to 23)

The main Andaman cash crops are Cashew , Nut , Areca Nut

The prices of three commodities Cashew , Nut and Areca Nut are ₹ x, y and z per units respectively. A person P purchases 4 units of Nuts and sells two units of Cashew and 5 units of Areca Nut . Person Q purchases 2 units of Areca Nut and sells 3 units of Cashew and one unit of Nut . Person R purchases one unit of Cashew and sells 3 unit of Nuts and one unit of Areca Nut . In the process, P,Q and R earn ₹ 15,000, ₹ 1,000 and ₹4,000 respectively. Find the prices per unit of Cashew , Nut , Areca Nut . (Use matrix inversion method to solve the problem.)

** Mail Mathematics PPT on my Email id bhavjeetkaur3030@gmail.com by 20th June 2023 .

** submit its hardcopy when school reopens .

Maths activity in maths practical file 10 marks

- **ACTIVITY FILE WORK FOR BOARD PRACTICALS :**

WRITE DOWN THE FOLLOWING ACTIVITIES IN THE MATHS PRACTICAL FILE :

ACTIVITY1 : Draw the graph of $\sin^{-1} x$, $\cos^{-1} x$, $\tan^{-1} x$ on the graph paper . (see chapter Inverse Trigonometry functions) .

Activity 2 : -----

30 MARKS

Case Study Questions

1. In a city there are two factories A and B. Each factory produces sports clothes for boys and girls. There are three types of clothes produced in both the factories, type I, II and III. For boys the number of units of types I, II and III respectively are 80, 70 and 65 in factory A and 85, 65 and 72 are in factory B. For girls the number of units of types I, II and III respectively are 80, 75, 90 in factory A and 50, 55, 80 are in factory B.



Based on the above information, answer the following questions.

(i) If P represents the matrix of number of units of each type produced by factory A for both boys and girls, then P is given by

- (a)
$$\begin{matrix} & \text{Boys} & \text{Girls} \\ \text{I} & \begin{bmatrix} 85 & 50 \end{bmatrix} \\ \text{II} & \begin{bmatrix} 65 & 55 \end{bmatrix} \\ \text{III} & \begin{bmatrix} 72 & 80 \end{bmatrix} \end{matrix}$$
- (b)
$$\begin{matrix} & \text{I} & \text{II} & \text{III} \\ \text{Boys} & \begin{bmatrix} 50 & 55 & 80 \end{bmatrix} \\ \text{Girls} & \begin{bmatrix} 85 & 65 & 72 \end{bmatrix} \end{matrix}$$
- (c)
$$\begin{matrix} & \text{I} & \text{II} & \text{III} \\ \text{Boys} & \begin{bmatrix} 80 & 75 & 90 \end{bmatrix} \\ \text{Girls} & \begin{bmatrix} 80 & 70 & 65 \end{bmatrix} \end{matrix}$$
- (d)
$$\begin{matrix} & \text{Boys} & \text{Girls} \\ \text{I} & \begin{bmatrix} 80 & 80 \end{bmatrix} \\ \text{II} & \begin{bmatrix} 70 & 75 \end{bmatrix} \\ \text{III} & \begin{bmatrix} 65 & 90 \end{bmatrix} \end{matrix}$$

(ii) If Q represents the matrix of number of units of each type produced by factory B for both boys and girls, then Q is given by

- (a)
$$\begin{matrix} & \text{Boys} & \text{Girls} \\ \text{I} & \begin{bmatrix} 85 & 50 \end{bmatrix} \\ \text{II} & \begin{bmatrix} 65 & 55 \end{bmatrix} \\ \text{III} & \begin{bmatrix} 72 & 80 \end{bmatrix} \end{matrix}$$
- (b)
$$\begin{matrix} & \text{I} & \text{II} & \text{III} \\ \text{Boys} & \begin{bmatrix} 50 & 55 & 80 \end{bmatrix} \\ \text{Girls} & \begin{bmatrix} 85 & 65 & 72 \end{bmatrix} \end{matrix}$$
- (c)
$$\begin{matrix} & \text{I} & \text{II} & \text{III} \\ \text{Boys} & \begin{bmatrix} 80 & 75 & 90 \end{bmatrix} \\ \text{Girls} & \begin{bmatrix} 80 & 70 & 65 \end{bmatrix} \end{matrix}$$
- (d)
$$\begin{matrix} & \text{Boys} & \text{Girls} \\ \text{I} & \begin{bmatrix} 80 & 80 \end{bmatrix} \\ \text{II} & \begin{bmatrix} 70 & 75 \end{bmatrix} \\ \text{III} & \begin{bmatrix} 65 & 90 \end{bmatrix} \end{matrix}$$

(iii) The total- production of sports clothes of each type for boys is given by the matrix

- (a)
$$\begin{matrix} \text{I} & \text{II} & \text{III} \\ \begin{bmatrix} 165 & 130 & 137 \end{bmatrix} \end{matrix}$$
- (b)
$$\begin{matrix} \text{I} & \text{II} & \text{III} \\ \begin{bmatrix} 130 & 165 & 137 \end{bmatrix} \end{matrix}$$
- (c)
$$\begin{matrix} \text{I} & \text{II} & \text{III} \\ \begin{bmatrix} 165 & 135 & 137 \end{bmatrix} \end{matrix}$$
- (d)
$$\begin{matrix} \text{I} & \text{II} & \text{III} \\ \begin{bmatrix} 137 & 135 & 165 \end{bmatrix} \end{matrix}$$

(iv) The total production of sports clothes of each type for girls is given by the matrix

- (a)
$$\begin{matrix} \text{I} & \text{II} & \text{III} \\ \begin{bmatrix} 130 & 130 & 170 \end{bmatrix} \end{matrix}$$
- (b)
$$\begin{matrix} \text{I} & \text{II} & \text{III} \\ \begin{bmatrix} 170 & 130 & 130 \end{bmatrix} \end{matrix}$$
- (c)
$$\begin{matrix} \text{I} & \text{II} & \text{III} \\ \begin{bmatrix} 130 & 170 & 130 \end{bmatrix} \end{matrix}$$
- (d) none of these

(v) Let R be a 3 x 2 matrix that represent the total production of sports clothes of each type for boys and girls, then transpose of R is

- (a)
$$\begin{bmatrix} 165 & 135 & 137 \\ 130 & 130 & 170 \end{bmatrix}$$
- (b)
$$\begin{bmatrix} 130 & 130 & 170 \\ 165 & 135 & 138 \end{bmatrix}$$
- (c)
$$\begin{bmatrix} 165 & 132 \\ 135 & 130 \\ 137 & 170 \end{bmatrix}$$
- (d)
$$\begin{bmatrix} 130 & 168 \\ 130 & 135 \\ 170 & 137 \end{bmatrix}$$

2. To promote the making of toilets for women, an organisation tried to generate awareness through (i) house calls (ii) emails and (iii) announcements. The cost for each mode per attempt is given below:



(i) Rs.50 (ii) Rs.20 (iii) Rs.40

The number of attempts made in the villages X, Y and Z are given below:

(i) (ii) (iii)

400	300	100
300	250	75
500	400	150

Also, the chance of making of toilets corresponding to one attempt of given modes is

(i) 2% (ii) 4% (iii) 20%

Based on the above information, answer the following questions.

(i) The cost incurred by the organisation on village X is

(a) 10000 (b) Rs.15000 (c) 30000 (d) Rs.20000

(ii) The cost incurred by the organisation on village Y is

(a) Rs.25000 (b) Rs.18000 (c) Rs.23000 (d) Rs.28000

(iii) The cost incurred by the organisation on village Z is

(a) Rs.19000 (b) Rs.39000 (c) Rs.4500 (d) Rs.5000

(iv) The total number of toilets that can be expected after the promotion in village X, is

(a) 20 (b) 30 (c) 40 (d) 50

(v) The total number of toilets that can be expected after the promotion in village Z, is

(a) 26 (b) 36 (c) 46 (d) 56

3. Two farmers Shyam and Balwan Singh cultivate only three varieties of pulses namely Urad, Masoor and Mung. The sale (in Rs.) of these varieties of pulses by both the farmers in the month of September and October are given by the following matrices A and B.



September sales (in ₹)

$$A = \begin{bmatrix} \text{Urad} & \text{Masoor} & \text{Mung} \\ 10000 & 20000 & 30000 \\ 50000 & 30000 & 10000 \end{bmatrix} \begin{matrix} \text{Shyam} \\ \text{Balwan Singh} \end{matrix}$$

October sales (in ₹)

$$B = \begin{bmatrix} \text{Urad} & \text{Masoor} & \text{Mung} \\ 5000 & 10000 & 6000 \\ 20000 & 10000 & 10000 \end{bmatrix} \begin{matrix} \text{Shyam} \\ \text{Balwan Singh} \end{matrix}$$

Using algebra of matrices, answer the following questions.

- (i) The combined sales of Masoor in September and October, for farmer Balwan Singh, is
(a) Rs. 80000 (b) Rs. 90000 (c) Rs. 40000 (d) Rs. 135000
- (ii) The combined sales of Urad in September and October, for farmer Shyam is
(a) Rs. 20000 (b) Rs. 30000 (c) Rs. 36000 (d) Rs. 15000
- (iii) Find the decrease in sales of Mung from September to October, for the farmer Shyam.
(a) Rs. 24000 (b) Rs. 10000 (c) Rs. 30000 (d) No change
- (iv) If both farmers receive 2% profit on gross sales, compute the profit for each farmer and for each variety sold in October.

$$\begin{matrix} \text{Urad} & \text{Masoor} & \text{Mung} \\ \text{(a)} \begin{bmatrix} 100 & 200 & 220 \\ 400 & 300 & 200 \end{bmatrix} \begin{matrix} \text{Shyam} \\ \text{Balwan Singh} \end{matrix} & \text{(b)} \begin{bmatrix} 100 & 200 & 120 \\ 400 & 200 & 200 \end{bmatrix} \begin{matrix} \text{Shyam} \\ \text{Balwan Singh} \end{matrix} & \text{(c)} \begin{bmatrix} 150 & 200 & 220 \\ 400 & 200 & 280 \end{bmatrix} \begin{matrix} \text{Shyam} \\ \text{Balwan Singh} \end{matrix} & \text{(d)} \begin{bmatrix} 100 & 200 & 120 \\ 250 & 200 & 220 \end{bmatrix} \begin{matrix} \text{Shyam} \\ \text{Balwan Singh} \end{matrix} \end{matrix}$$

- (v) Which variety of pulse has the highest selling value in the month of September for the farmer Balwan Singh?
(a) Urad (b) Masoor (c) Mung (d) All of these have the same price

•Two schools A and B want to award their selected students on the values of Honesty, Hard work and Punctuality. The school A wants to award Rs.x each, Rs.y each and Rs.z each for the three respective values to its 3, 2 and 1 students respectively with a total award money of Rs.2200. School B wants to spend Rs.3100 to award its 4, 1 and 3 students on the respective values (by giving the same award money to the three values as school A). The total amount of award for one prize on each value is Rs.1200.



Using the concept of matrices and determinants, answer the following questions.

(i) What is the award money for Honesty?

(a) Rs.350 (b) Rs.300 (c) Rs.500 (d) Rs.400

(ii) What is the award money for Punctuality?

(a) Rs.300 (b) Rs.280 (c) Rs.450 (d) Rs.500

(iii) What is the award money for Hard work?

(a) Rs 500 (b) Rs.400 (c) 0 (d) none of these

(iv) If a matrix P is both symmetric and skew-symmetric, then IPI is equal to

(a) 1 (b) -1 (c) 0 (d) none of these

(v) If P and Q are two matrices such that $PQ = Q$ and $QP = P$, then IQ^2I is equal to

(a) IQI (b) IPI (c) 1 (d) 0

5

(a)

• Three shopkeepers Salim, Vijay and Venket are using polythene bags, handmade bags (prepared by prisoners) and newspaper's envelope as carry bags. It is found that the shopkeepers Salim, Vijay and Venket are using (20,30,40), (30,40,20) and (40, 20, 30) polythene bags, handmade bags and newspaper's envelopes respectively. The shopkeepers Salim, Vijay and Venket spent Rs.250, Rs.270 and Rs.200 on these carry bags respectively.



Using the concept of matrices and determinants, answer the following questions.

(i) What is the cost of one polythene bag?

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

(ii) What is the cost of one handmade bag?

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

(iii) What is the cost of one newspaper envelope

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

(iv) Keeping in mind the social conditions, which shopkeeper is better?

(a) Salim (b) Vijay (c) Venket (d) None of these

(v) Keeping in mind the environmental conditions, which shopkeeper is better?

(a) Salim (b) Vijay (c) Venket (d) None of these

•Gaurav purchased 5 pens, 3 bags and 1 instrument box and pays Rs. 16. From the same shop, Dheeraj purchased 2 pens, 1 bag and 3 instrument boxes and pays Rs.19, while Ankur purchased 1 pen, 2 bags and 4 instrument boxes and pays Rs.25.



Using the concept of matrices and determinants, answer the following questions.

- (i) The cost of one pen is
 (a) Rs.2 (b) Rs.5 (c) Rs.1 (d) Rs.3
- (ii) What is the cost of one pen and one bag?
 (a) Rs.3 (b) Rs.5 (c) Rs.7 (d) Rs.8
- (iii) What is the cost of one pen and one instrument box?
 (a) Rs.7 (b) Rs.6 (c) Rs.8 (d) Rs.9
- (iv) Which of the following is correct?
 (a) Determinant is a square matrix (b) Determinant is a number associated to a matrix
 (c) Determinant is a number associated to a square matrix (d) All of the above
- (v) From the matrix equation $AB = AC$, it can be concluded that $B = C$ provided
 (a) A is singular (b) A is non-singular (c) A is symmetric (d) A is square

SUBJECT : INFORMATICS PRACTICES

• **PART A-ACTIVITY (10 Marks)**

Make a chart / powerpoint presentation on the following topic:

- a) The no of covid cases in Lakshwadeep and Andaman and Nicobar islands. Include charts to present the data using
 Also, use colorful pictures/images/cliparts to make your ACTIVITY attractive and presentable.
 On a slide/PPT make a collage of images (MAX: 6-7 SLIDES)

• **PART B – Practical file (20 Marks)**

General instructions

1. MYSQL queries should be written to create table , insert records and the questions.
2. In a word file paste the code and the output
- 3.Then make a pdf file and beautify it by inserting borders, images etc.and take printout.
4. First page of pdf file should include Name of the project and student's information like School name,rollno,admn no ,name and subject.
5. Second page should elaborate on MySQL
6. Third page should have the question
7. The queries and output shall follow.

Q1) Write mysql queries for parts (a) to (e) and output of the queries (f) to (i) based on the table, Furniture given below:

Table: FURNITURE

Table: FURNITURE

FID	NAME	DATEOFPURCHASE	COST	DISCOUNT
B001	Double Bed	03-Jan-2018	45000	10
T010	Dining Table	10-Mar-2020	51000	5
B004	Single Bed	19-Jul-2021	22000	0
C003	Long Back Chair	30-Dec-2016	12000	3
T006	Console Table	17-Nov-2019	15000	12
B006	Bunk Bed	01-Jan-2021	28000	14

- (a) Print the details of Double Bed
- (b) Print records having discount greater than 3
- (c) Print name and FID for records purchased after 5th June
- (d) Print details of single bed and bunk bed
- (e) Show all the records in descending order of cost

- (f) `SELECT SUM(DISCOUNT) FROM FURNITURE WHERE COST>15000;`
- (g) `SELECT MAX(DATEOFPURCHASE) FROM FURNITURE;`
- (h) `SELECT * FROM FURNITURE WHERE DISCOUNT>5 AND FID LIKE "T%";`
- (i) `SELECT DATEOFPURCHASE FROM FURNITURE WHERE NAME IN ("Dining Table", "Console Table");`

Q2) Create the following table teacher and student

- (i) Write SQL commands for the following queries based on the relation Teacher given below:

No	Name	Age	Department	Date_of_Join	Salary	Sex
1	Jugal	34	Computer	10/01/97	12000	M
2	Sharmila	31	History	24/03/98	20000	F
3	Sandeep	32	Maths	12/12/96	30000	M
4	Sangeeta	35	History	01/07/99	40000	F
5	Rakesh	42	Maths	05/09/97	25000	M
6	Shyam	50	History	27/06/98	30000	M
7	Shiv Om	44	Computer	25/02/97	21000	M
8	Shalakra	33	Maths	31/07/97	20000	F

- To show all information about the teacher of History department.
- To list the names of female teachers who are in Maths department.
- To list the names of all teachers with their date of joining in ascending order.
- To display teacher's name, salary, age for male teachers only.
- To count the number of teachers with Age>23.

- (ii) Given the following relation: STUDENT

No.	Name	Age	Department	Dateofadm	Fee	Sex
1	Pankaj	24	Computer	10/01/97	120	M
2	Shalini	21	History	24/03/98	200	F
3	Sanjay	22	Hindi	12/12/96	300	M
4	Sudha	25	History	01/07/99	400	F
5	Rakesh	22	Hindi	05/09/97	250	M
6	Shakeel	30	History	27/06/98	300	M
7	Surya	34	Computer	25/02/97	210	M
8	Shikha	23	Hindi	31/07/97	200	F

Write SQL commands for the following queries

- To show all information about the students of History department.
- To list the names of female students who are in Hindi department.
- To list the names of all students with their date of admission in ascending order.
- To display student's name, fee, age for male students only.

• Part C- Assignment (20 Marks)

General Instructions:

- Q1 contains sub parts and is of 12 marks
- Q2& Q3 carry four marks each
- To be written in a register/note book

Q1) Consider the following tables and answer the queries that follow:

Table: EMP

Code	Name	Sal
E1	RAJKUMAR	NULL
E2	SUCHITRA	4500
E3	YOGENDRA	NULL
E4	SUSHIL KR	3500
E5	LOVELY	4000

- Select Sum(Sal) from EMP;
- Select Min(Sal) from EMP;
- Select Max(Sal) from EMP;
- Select Count(Sal) from EMP;
- Select Avg(Sal) from EMP;
- Select Count(*) from EMP;

7. Select Count(Code) from EMP
8. Select * from EMP order by sal;
9. Select Sum(Sal) from EMP where code >'E1';
10. Select code from EMP where sal IS NULL;
11. Write SQL query to print records of employees who are not getting any salary
12. Write SQL query to print records of employees having code after E3

- 2) What is a topology? Explain tree topology in detail
- 3) Explain four types of networks based on geographical spread

SUBJECT : COMPUTER SCIENCE

- **PART A-ACTIVITY (10 Marks)**

Make a chart / powerpoint presentation on the following topic:

a) 'The growing Tourism' in Andaman and Nicobar islands and lakshwadeep

**Also, use colorful pictures/images/cliparts to make your ACTIVITY attractive and presentable.
On a slide/PPT make a collage of images (MAX: 6-7 SLIDES)**

PART B – Practical File (22 Marks)

General instructions for question1

1. MYSQL queries should be written to get the answers.
2. In a word file paste the code and the output
3. Then make a pdf file and beautify it by inserting borders, images etc. and take printout.
4. First page of pdf file should include Name of the project and student's information like School name, rollno, admn no, name and subject.
5. Second page should have general information on Sikkim
6. Third page should elaborate on MySQL
7. Fourth page should have the question
8. The queries and output shall follow.

Q1) Write mysql queries for parts (a) to (e) and output of the queries (f) to (i) based on the table, Furniture given below:

Table: FURNITURE

Table: FURNITURE

FID	NAME	DATEOFPURCHASE	COST	DISCOUNT
B001	Double Bed	03-Jan-2018	45000	10
T010	Dining Table	10-Mar-2020	51000	5
B004	Single Bed	19-Jul-2021	22000	0
C003	Long Back Chair	30-Dec-2016	12000	3
T006	Console Table	17-Nov-2019	15000	12
B006	Bunk Bed	01-Jan-2021	28000	14

- (j) Print the details of Double Bed
- (k) Print records having discount greater than 3
- (l) Print name and FID for records purchased after 5th June
- (m) Print details of single bed and bunk bed
- (n) Show all the records in descending order of cost

(o) SELECT SUM(DISCOUNT) FROM FURNITURE WHERE COST>15000;

(p) SELECT MAX(DATEOFPURCHASE) FROM FURNITURE;

(q) SELECT * FROM FURNITURE WHERE DISCOUNT>5 AND FID LIKE "T%";

(r) SELECT DATEOFPURCHASE FROM FURNITURE WHERE NAME IN ("Dining Table", "Console Table");

Q2) Write the following programs in Python. Copy and paste in word and bring printout

- i) Write a python program to take 3 numbers as input and print the largest number
- ii) Write a python program to check whether a number is prime or not.
- iii) Write a python program to check whether a number is armstrongnumber or not.
- iv) Write a python program accept a number and print its table.
- v) Write a python program to read n numbers . Store even numbers in a list and odd numbers in another list.
- vi) Write a python program to find the factorial of a number

Part C- Assignment (18 Marks)

General Instructions:

- Q1-Q10 carry one mark each
- Q11& Q12 carry four marks each

Consider the following tables and answer the queries that follow:

Table: EMP

ID	NAME	AGE	ADDRESS	SALARY
1	Ramesh	32	Ahmedabad	2000.00
2	Khilan	25	Delhi	1500.00
3	kaushik	23	Kota	2000.00
4	Chaitali	25	Mumbai	6500.00
5	Hardik	27	Bhopal	8500.00
6	Komal	22	MP	4500.00
7	Muffy	24	Indore	10000.00

1. Create the following table
2. Insert records
3. Write a SQL query to display all records in ascending order of name.
4. Write a SQL query to display all records in descending order of name.
5. Write a SQL query to display all records in ascending order of name, descending order of age.
6. Print name and age of employees having salary between 2000 and 3000
7. Print records of employee Ramesh and Kaushik
8. Print details of employees residing in Bhopal
9. Display records of employees having age more than 30 years or living in delhi
10. Print records of employees who are more than 30 years of age

- 11) What is a topology? Explain tree topology in detail
- 12) Explain four types of networks based on geographical spread.

SUBJECT : PHYSICS

Section-A.

(1×5=5)

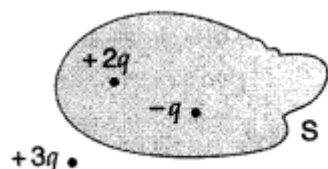
1. Is the force acting between 2 points charges Q1 and Q2 kept at same distance in air attractive or repulsive when
 - I. $Q_1 Q_2 > 0$.
 - II. $Q_1 Q_2 < 0$
2. What is an ideal dipole
3. Dielectric constant of medium is unity what will be its permittivity?
4. When is an electric line of force is:-
 - a. straight
 - b. curved
5. Which is bigger a coulomb or a charge on an electron?

Section-B

(2×5=10)

1. Can electric field lines of force from close loop give reason for your answer
2. Two charges $-3q$ and q are placed fixed on the x-axis separated by distance 'd'. Where should a third charge $2q$ be placed such that it will not experience any force?

3. Figure shows three point charges, $+2q$, $-q$ and $+3q$. Two charges $+2q$ and $-q$ are enclosed within a surface 'S'. What is the electric flux due to this configuration through the surface 'S' (Delhi 2010)



4. Give any 4 points of dissimilarities and similarities between electrostatic force and gravitational force.
5. A person comb his hairs on a dry day the comb causes 10^{22} electrons to leave the persons hair and stick to the comb calculate the charge the comb carries?

Section-C

(3×5=15)

- What do you understand by the phenomena of charging by induction gives some illustration to support your answer
- Using gauss's theorem drive and expression for electric field intensity a point due to
 - A live of charge
 - A uniformly charged thin spherical shell
 - A charge solid sphere
- Obtain the formula for the electric field due to a long thin wire of uniform linear charge density λ without using Gauss's law. [Hint: Use Coulomb's law directly and evaluate the necessary integral.]
- Two charges each of 1 micro coulomb but opposite in signs are one centimetre apart calculate electric field at a point distance 10 centimetre from the midpoint Axial line of the dipole.
- (a) Sketch electric lines of force due to (i) isolated positive charge (ie $q>0$) and (ii) isolated negative charge (ie $q<0$)
 (b) Two point changes q and $-q$ are placed at a distance $2a$ apart. Calculate the electric field at a point P situated at a distance r along the perpendicular bisector of the line joining the charges. What is the field when $r \gg a$?

PROJECT

(10 Marks)

Prepare a investigatory project based on your syllabus.

Choose your topic from the followings:-

- To study various factors on which the internal resistance/EMF of a cell depends.
- To study the variations in current flowing in a circuit containing an LDR because of a variation in
 - the power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the

lamps at a fixed distance).

(b) the distance of a incandescent lamp (of fixed power) used to 'illuminate' the LDR.

3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equiconvex lens (made from a glass of known refractive index) and an adjustable object needle.

4. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer.

5. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.

6. To estimate the charge induced on each one of the two identical Styrofoam (or pith) balls suspended in a vertical plane by making use of Coulomb's law.

7. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C. source of adjustable frequency.

8. To study the earth's magnetic field using a compass needle -bar magnet by plotting magnetic field lines and tangent galvanometer.

ART INTEGRATED PROJECT

(10 Marks)

Prepare a ART INEGRATION PROJECT with introduction and index page on the following topics as allocated to your group

Roll No.	TOPICS
1 to 4	Electricity consumption in Delhi ,Andaman Nicobar and Lakshadweep with pie chart data representation
5 to 9	Comparison on sources of energy power in Delhi And Lakshadweep with graphical representation on their availability in last 2 decades

10 to 13	Comparison of sources of power in Delhi and Andaman Nicobar with graphical representation on their availability in last 2 decades
14 to 18	Explain how Principles of physics like buoyancy , fluid dynamics plays an important role in an areas like Lakshadweep and Andaman Nicobar.
19 to 22	Principle of physics can be used in understanding various aspects of nature in region like Delhi , Lakshadweep and Andaman Nicobar island

SUBJECT : CHEMISTRY

GENERAL INSTRUCTIONS:

M.M 50

- Make a separate thin notebook for H.H.W.
 - Do assignment in notebook and
 - Project work on A4 size sheets.
 - . Do Art integrated activity and paste pictures also.
 - All the work should be done neatly.
- Draw Diagrams wherever necessary

PROJECT

Select any one topic for the investigatory project and prepare a project report

Topics for Projects.

- 1.Measuring the Amount of Acetic Acid In Vinegar by Titration with an Indicator Solution
- 2.Determination Of Caffeine In Tea Samples
- 3.Determination of The Contents of Cold Drinks
4. Analysis of coconut water
- 5.To analyse the quantity of casein in different sample of milk
- 6.Preparation of Potash Alum from scrap Aluminum
- 7.Prepare A Sample of Cuprammonium Rayon Threads From Filter Paper
- 8.Quantitive analysis of certain alloys
- 9.Sterilization of Water using Bleaching Powder
- 10.Study the Diffusion of Solids in Liquids
- 11.Variation of Conductance with Temperature in Electrolytes
12. To analyse the nutrients present in biscuits
- 13.Analysis of honey
- 14.Analysis of ions in toothpaste
- 15.Analysis of contents of chocolate

ASSIGNMENT

General instructions: All questions are compulsory

Q no 1 to 10 are of 1 Mark each

Q no 11 to 14 are of 3 Marks each

Q no 15 to 16 are of 4 Marks each

1. Identify and indicate the presence of centre of chirality, if any, in the following molecules
a) 2-Chlorobutane b) 2-Bromopropanoic Acid
 2. Write structure of the following organic compound:
a) 1-Iodo-4-methylcyclohexane b) 1,4-Dibromobut-2-ene c) 3-Iodo-4-tertbutyloctane
 3. Boiling point of alcohols are more than that of ethers and alkyl halides of comparable molecular masses. Why?
 4. Alcohols react with halogen acids to form haloalkanes but phenol does not form halobenzene. Explain.
 5. The treatment of alkyl chlorides with aqueous KOH lead to the formation of alcohols but in the presence of alcoholic KOH alkenes are major product. Why?
 6. Non-ideal solutions exhibit either positive or negative deviations from Raoult's law. What are these deviations and why are they caused? Explain with one example for each type.
 7. State Raoult's law. How is it formulated for solutions of non-volatile solutes?
 8. An aqueous solution of sodium chloride freezes below 273 K. Explain the lowering in freezing points of water with the help of a suitable diagram.
 9. State Henry's law. What is the effect of temperature on the solubility of a gas in a liquid?
 10. Define osmotic pressure of a solution. How is the osmotic pressure related to the concentration of a solute in a solution?
 11. Write the short notes on the following
a) Carbylamine reaction b) Riemer Tiemann reaction c) Sandmeyer's reaction
 12. How will you carry out the following conversions?
a) Bromoethane to butane
b) Aniline to chlorobenzene
c) Benzyl chloride to benzyl alcohol
- OR
12. Explain the following:
a) Protonation of alcohols is easier than phenols.
b) Although chlorine is an electron withdrawing group, yet it is ortho, para directing in electrophilic aromatic substitution reaction.
c) Chloroacetic acid is stronger acid than acetic acid

13. 18 g of glucose, $C_6H_{12}O_6$ (Molar mass – 180 g mol^{-1}) is dissolved in 1 kg of water in a sauce pan. At what temperature will this solution boil? (K_b for water = $0.52 \text{ K kg mol}^{-1}$, boiling point of pure water = 373.15 K)

14. An aqueous solution of sodium chloride freezes below 273 K . Explain the lowering in freezing points of water with the help of a suitable diagram.

15. Explain the following:

- Haloarenes do not undergo nucleophilic substitution reaction easily.
- Unlike phenols alcohols are easily protonated.
- ortho nitrophenol is steam volatile while para nitrophenol is not.
- Grignard reagent should be prepared under anhydrous conditions.

OR

15i) Account for the following

- Haloalkanes undergo nucleophilic substitution reactions easily.
- The order of acidity of alcohols falls in the order: primary > secondary > tertiary.
- The boiling point of ethanol is higher than that of methoxymethane.

ii) An optically active compound having molecular formula $C_7H_{15}Br$ reacts with aqueous KOH to give racemic mixture of products. Write the mechanism involved for the reaction.

16.(a) A solution of glycerol ($C_3H_8O_3$; molar mass = 92 g mol^{-1}) in water was prepared by dissolving some glycerol in 500 g of water. This solution has a boiling point of 100.42°C . What mass of glycerol was dissolved to make this solution? K_b for water = $0.512 \text{ K kg mol}^{-1}$

(b) What mass of ethylene glycol (molar mass = 62.0 g mol^{-1}) must be added to 5.50 kg of water to lower the freezing point of water from 0°C to -10.0°C ? (K_f for water = $1.86 \text{ K kg mol}^{-1}$)?

Art-Integrated Project code 1.1.8

(10 MARKS)

Prepare a hand written report on the following:-

- Roll No 1 to 5 Air quality index comparisons in Lakshadweep and Andaman Nico Bar islands.
- Roll No 6 to 10 Minerals and metal ions in Lakshadweep and Andaman Nico bar Islands
- Roll No 11 to 16 Solid waste management in Delhi and in Lakshadweep Islands
- Roll No 17 to 22 Allometric variability of heavy metals in corals of Lakshadweep and Andaman Nico bar Islands

SUBJECT : BIOLOGY

PROJECT-(10 marks)

-Choose one topic out of the following: (Kindly avoid overlapping of topics among yourselves)

-Make the project on A4 sheets and be creative.

- Post fertilization events in Angiosperms.
- Structure of DNA double helix and its discovery.
- DNA fingerprinting and its applications.
- Mendel's hybridization experiment on pea plant.
- Applications of Biotechnology in medicine and diagnostics.
- Cancer.
- HIV-AIDS.
- Transgenic animals.
- RNA Interference (RNAi).
- Origin of life on Earth- Big Bang Theory.
- Genetic disorders-(Mendelian and Chromosomal).
- Co-evolution.

ASSIGNMENT – (30 marks)

-Attempt the following questions in your Assignment notebook:

-Make diagrams, wherever required.

Section-A

(One mark each)

1. What are the different adaptations present in the pollen grains of plants like sea grasses that undergo Hydrophily?
2. Differentiate between True fruits and False fruits.
3. What is the significance of Emasculation and Bagging techniques?
4. Pollen products can be used as food supplements. Why?
5. Mention the role of FSH and LH during oogenesis.
6. What major feature differentiates between gametogenesis in males with that in females?
7. What releases: a) Estrogen, & b) Progesterone, in human females?
8. Differentiate between Menarche and Menopause.
9. Differentiate between Albuminous and Ex-Albuminous seeds.
10. What significance does an apomictic seed hold over hybrid seed?

Section-B

(Three mark each)

11. How and when does a PEC form in a flower? What role does it play in embryo development?
12. State the three phases of menstrual cycle. Also, mention their duration.
13. Draw and label the structure of a mature embryo sac. Why is it termed as 7-celled and 8-nucleated.
14. State one major differentiating feature between meiotic division during spermatogenesis and that during oogenesis. What is the fate of polar body produced during oogenesis?

Section-C

(Four mark each)

15. a) Draw and label the structure of Female reproductive system in humans.

b) In which part of female reproductive system does fertilization occur? How many sperms are required to fuse with ovum during fertilization?

16. a) Draw and label the structure of a mature sperm.

b) Define: a) Spermiogenesis b) Spermiation.

ACTIVITY- (10 marks)

-Make your own project in handwritten format. Typed ones will not be accepted.

-Minimum 5-6 content sheets.

Make a project on the given title (According to roll nos.):

- 1st batch (4 students): **“Biodiversity Conservation in Andaman and Nicobar; Lakshadweep Islands”**.(1.2.3)
- 2nd batch (4 students):**“Andaman & Nicobar Islands: A Biological Hotspot”**.(1.1.8)
- 3rd batch (3 students):**“Species Native to Andaman & Nicobar; Lakshadweep islands”**.(1.2.3)