



JPDAV PUBLIC SCHOOL, GANAUR
HOLIDAY'S HOMEWORK (2022-23)
Class- 12th (MED. & NON-MEDICAL)



ENGLISH

1. Read the following lessons carefully and make a question bank containing at least hundred questions:
Flamingo: Lesson 1&2
Poem 1&2
Vistas: Lesson 1
2. Write a notice to be put up on your school notice board for the students of class 12th informing about the Online Classes during Summer Vacation. Invent all the details.
3. Draft a display advertisement for the Aid Centre run by you to help the Corona victims. Invite the volunteers for your centre to supply the fundamental necessities for the victims.
4. Write an article on the topic 'Nature has Become Revengeful' in 150-200 words.
5. During the utmost adverse situation spread by the novel coronavirus many people lost their loved ones. Many struggled hard to save their dears and paid a bulky amount for lifesaving goods. During this time, we saw the inhumane behaviour of the people towards the dying ones. They became so greedy that they even wanted to earn from dead bodies. Keeping in view the incidents of black marketing of the lifesaving goods and services like injections, Oxygen and tablets etc, prepare a report on the topic 'Black marketers: The Hackers of Life'.
6. Write a speech on the topic 'Moral Degradation among the Students During Corona Period' and prepare it for the inter-class speech competition just after the vacation. Students securing first and second position will be awarded.

- Note: 1.** Question no. 1 is to be done in fair notebook.
2. Question number 2-6 is to be done on assignment sheets.

PHYSICS

A. Complete Lab manual

Section -A

1. To verify the laws of combination (series) of resistance using a meter bridge.
2. To find the resistance and resistivity of a given wire , using meter bridge.
3. To find the resistance and figure of merit of a galvanometer using half deflection method.
4. To find the frequency of A.C mains using Sonometer.

Section- B

1. To find the focal length of a convex lens by plotting the graph between u and v.
1. To find the focal length of convex mirror using a convex lens.
2. To draw the I-V characteristic curve for pn junction in forward and reverse bias.
3. To determine the angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.

B. Revise Chapter 1,2 and 3.

C. Write Activities in Lab manual

Section A (2,3,4)

Section B (5,6,7)

CHEMISTRY

1. Prepare a question bank on IUPAC names .at least 100 examples (5 daily each).
2. Do 20 numericals related to chapter 2 chapter 3.
3. Complete your lab manual
4. Submit any model related to chemistry.
(Mandatory for everyone)

BIOLOGY

Complete Lab manual

A. List of Experiments

1. Prepare a temporary mount to observe pollen germination.
2. Study the plant population density by quadrat method.
3. Study the plant population frequency by quadrat method.
4. Prepare a temporary mount of onion root tip to study mitosis.
5. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.

B. Study and observe the following (Spotting):

1. Flowers adapted to pollination by different agencies (wind, insects, birds).
2. Pollen germination on stigma through a permanent slide or scanning electron micrograph.
3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
4. Meiosis in onion bud cell or grasshopper testis through permanent slides.
5. T.S. of blastula through permanent slides (Mammalian).
6. Mendelian inheritance using seeds of different colour/sizes of any plant.
7. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness.
8. Controlled pollination - emasculation, tagging and bagging.
9. Common disease-causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause.

Revise & learn chapter 2, 3 & 4

Read chapter 15 & 16

MATHEMATICS

1. Prepare an "Art integrated project" (in any one form - Power point presentation/project file/working model form) on following topics. (Any one)
 - a. relation and function
 - b. matrix and determinant
 - c. application of derivative.
 - d. inverse trigonometric function
2. Do 15 extra question (previous year questions) from each chapter -2,3,4 and 12.
3. Revise chapters 2,3,4 and 12 with examples.
4. Prepare a mind map of the topic as per given roll no
 - Roll No 1 to 15- Chapter matrix and determinant
 - Roll No 16-30 – chapter continuity and differentiability
 - Roll No 31 onwards – chapter linear programming problem

PHYSICAL EDUCATION

Theory: - Learn unit 1 (Management of Sporting events), 2 (Children and Women in Sports) and 5 (Sports and Nutrition)

Practical: - Practice ten Yogasana regularly from your syllabus (unit 3)

Project: - Make a project on Sports and Nutrition

INFORMATION PRACTICE

Q1. Prepare notes and solve chapter back exercise of Chapter-1 (Querying and SQL Function) and Chapter-2 (Data Handling using Pandas-1). (Do only in fair notebook)

Q2 Select your topic for project and prepare individual project on selected topic. (Help : How to prepare IP project YouTube videos will be shared in Whats App group)

Q3 Do the following assignment in fair notebook:

Consider a table **Teacher** that contains the following data:

| EmpNo | FName | LName | Subject | Qualification | Salary | Post |
|-------|---------|---------|----------|---------------|-----------|------|
| 1 | Sandeep | Verma | S.St. | B.Ed | 25409.789 | TGT |
| 2 | Sonia | Kumari | Computer | BCA | 21200.456 | TGT |
| 3 | Nirmal | Sharma | Hindi | B.Ed | 38274.657 | PGT |
| 4 | Sanjeev | Shastri | Sanskrit | B.Ed. | 28782.228 | TGT |
| 5 | Rakesh | Sharma | English | B.Ed. | 32892.487 | PGT |

Write the SQL commands which will perform the following operations:

- i. To display first two characters in a string field "FName".
 - ii. To round the salary of Bed. Qualified teachers to one decimal place.
 - iii. To return the last 5 characters from a string field "LName".
 - iv. To display all first names ending with a.
 - v. To display 2 characters starting from the 3rd position from the string field "Subject".
- Q4 Write SQL queries using SQL functions to perform the following operations considering above table 'Teacher' :
- i. To display Teacher's first name where 'ee' occurs in the first name.
 - ii. To join First Name and Last name of the teachers with some space in between.
 - iii. To display contents of "Qualification" field in small letters.
 - iv. To display first 2 characters of the "Subject" field.
 - v. To round off the salary to the nearest integer.

Q5. Write a program in Python Pandas to create the following DataFrame Student from a Dictionary:

| RNO | Name | Term1 | Term2 |
|-----|-------------|-------|-------|
| 1 | Ravi Kishan | 90 | 80 |
| 2 | Geeta Goel | 65 | 45 |
| 3 | Shiv Kumar | 70 | 90 |
| 4 | Shyam Garg | 80 | 76 |

Perform the following operations on the DataFrame :

- 1) Add the Marks of both terms of the student and assign to column "Total".
- 2) Display the lowest score in both Term1 and Term2 of the DataFrame.
- 3) Display the Dataframe.

Q6 Write the SQL functions which will perform the following operations:

- i) To display the name of the month of the current date .
- ii) To remove spaces from the beginning and end of a string, " Panorama " .
- iii) To display the name of the day eg, Friday or Sunday from your date of birth, dob.
- iv) To display the starting position of your first name(fname) from your whole name(name).
- v) To compute the remainder of division between two numbers, n1 and n2

Q7 Consider the following table "GYM" :-

| ICODE | INAME | PRICE | OPENING DATE | BRANDNAME |
|-------|----------------------|-------|--------------|----------------|
| G1 | Power Fit Exercise | 20000 | 29-10-2019 | Power Gynea |
| G2 | Aqufit Hand Grip | 1800 | 13-03-2018 | Reliable |
| G3 | Cyber Bike | 14000 | 18-03-2017 | Ecobike |
| G4 | Protoner Extreme Gym | 30000 | 31-12-2018 | Coscore |
| G5 | Message Belt | 5000 | 23-01-2010 | Message Expert |

Write SQL queries using SQL functions to perform the following operations:-

- a. Display brand name and price after rounding off to zero decimal places.
- b. Display the seven characters from item name starting from fifth character.
- c. Display the position of occurrence of the string "ik" in item names.
- d. Display the month name for the opening date of Gym in capital letters.
- e. Display the name of the weekday for the opening date of Gym in small letters.