



ALAIN JUNIORS SCHOOL

SUMMER HOLIDAY ASSIGNMENT FOR GRADE 11 - SCIENCE

SUBJECT: ENGLISH ELECTIVE

- A. **INSTRUCTIONS:** The page numbers given in the brackets after each question are of **Advanced Writing and Reading Skill - English Elective for grade 11 and 12**. Please refer the pages mentioned in the brackets before you attempt the questions and answer them as per the specimen given.
1. Write an article in not more than 200 words on the problem of increasing obesity among the children living in cities, leading to various diseases like diabetes, asthma etc. You are Vipin/ Vineeta. (Page- 135, 136, 137)
 2. Write a speech in about 200 words discussing the uses and abuses of the internet by youth, giving suggestions how it can be a valuable tool for national progress and for promoting international understanding. (Page- 143)
 3. Write a letter to the Standard Book Co., Mumbai, complaining about poor quality of books supplied to your library. You are Mohan/ Mohini, Librarian of LajpatRai Secondary School, Mumbai. (page- 124)
 4. Write a letter to the Editor of “The Times Of India” , Delhi, expressing your concern over the increase in the road accidents, rash driving, and suggesting ways to curb the accidents. You are Nandita/ Naveen of Jawahar Nagar, Delhi. (page 125 & 126)
 5. You are Fathima/ Mohd. Azam, Secretary, Cultural Club, Raj Narain Public School, Allahabad. Your school has recently built a well planned auditorium. Write a description of the auditorium in 100-125 words. (page 93 & 94)
 6. Practice Note making, summary writing and reading passages given in your Elective English Writing Skills Book.
 1. Reading passages- 3.6 (page 21,22 and 23) 3.7 (page 24 , 25and 26) 3.8 (page 27,28 & 29)
 2. Note making and summary – IV (page 83& 84) V (page 85 & 86)

Wish You All Happy Summer Vacation

Chemistry - CHAPTER - STRUCTURE OF ATOM

1. Calculate the wavelength associated with a rubber ball of mass 0.1 Kg moving with a velocity of 10ms^{-1}
2. List all the values of l and m for $n = 2$
3. What is the maximum number of electrons that may be present in all the atomic orbitals with principal quantum number 3 and azimuthal quantum number 2?
4. The wavelength of green light from a traffic signal is about 520 nm. Calculate the frequency and wave number of this radiation. (Ans: $5.76 \times 10^{14} \text{ s}^{-1}$, $1.92 \times 10^6 \text{ m}^{-1}$)
5. To which Bohr's orbit in hydrogen atom, the electronic transition corresponds to third line in the Balmer series?
6. Calculate the kinetic energy of the ejected electron when uv radiation of frequency $1.6 \times 10^{15} \text{ s}^{-1}$ strikes the surface of potassium metal. Threshold frequency of potassium is $5 \times 10^{14} \text{ s}^{-1}$, $h = 6.626 \times 10^{-34} \text{ Js}$ (Ans: $7.29 \times 10^{-19} \text{ J}$)
7. When light of wavelength 470 nm falls on the surface of potassium metal, electrons are emitted with a velocity of $6.4 \times 10^4 \text{ m s}^{-1}$. What is the minimum energy required per mole to remove an electron from potassium metal? (Ans: $253.6 \text{ KJ mol}^{-1}$)
8. The threshold frequency for a metal X is $7.0 \times 10^{14} \text{ s}^{-1}$. Calculate the kinetic energy of an electron emitted when radiation of frequency $1.0 \times 10^{15} \text{ s}^{-1}$ strikes the metal. ($1.99 \times 10^{-19} \text{ J}$)
9. Calculate the energy of one mole of photons of radiation whose frequency is $5 \times 10^{14} \text{ Hz}$
10. Calculate and compare the energies of two radiations one with a wavelength of 800 nm and other with wavelength of 400 nm.
11. How many spherical nodes do you expect in a 4 s orbital?
12. What is the maximum number of electrons theoretically possible for a seventh principal shell?
13. In which atom, the outermost electron can have the following set of quantum numbers?
 $n = 3$, $l = 0$, $m = 0$, $s = -\frac{1}{2}$
14. For N atom, atomic number = 7, mass number = 14 and for H atom atomic number = 1, and mass Number = 1. How many electrons, protons and neutrons are present in ammonium ion?
15. In what ways do the spatial distribution of the orbitals in 1 s and 2 s differ?

Success is the good fortune that comes from aspiration, desperation, **perspiration** and inspiration.

COMPUTER SCIENCE

Grade: 11

Develop C++ programs to do the following:

- Convert Decimal number to Binary, Octal and Hexadecimal numbers and vice versa.
- Convert Octal number system to Binary number system and vice versa.
- Convert Hexadecimal number system to Binary number system and vice versa.

Prepare a report on how operating system manages:

- Memory management

Process management

BIOLOGY

Grade: 11

- Study of effects of fertilizers on the rate of growth of plants.
- Study competition between weeds and crops
- Study of effect of antibiotics on microorganisms
- Study of breaking of dormancy of seeds by KNO_3 , ethylene and shoot elongation.
- Study of deficiency symptoms of various essential elements and minerals..
- Study of effect of light and gravity on plant growth movement
- Study of effect of 2,4 D on translocation process.
- Study of effect of gibberellins on seed germination and shoot elongation.
- Study of effects of herbicide on lawn seeds.
- Study of dispersal of seeds by various agencies.
- Comparative study of chlorophyll content in five different species.
- .Study of adaptability of cockroach to drastic environment.
- Study of developmental stages by housefly/cockroach.
- Study of effect of osmotic stress by administration of hypertonic saline in frog.
- Study of locomotion and role of different fins in fishes.
- Study of zooplanktons from fresh water ponds and tank.
- Estimation of Vitamin-C content in different types of fruits

PHYSICS

GRADE-11

1. Plan to go to a place by a vehicle. Take readings of odometer and speedometer after every two minutes till you reach your destination. Record this observation in a tabular form.

Plot distance-time and speed-time graphs. State this type of motion is uniform or non

Uniform
2. Collect information about Galileo and Newton and their contribution in understanding the motion of objects.

Grade: 11

Sub: Psychology

- 1) In terms of helping solve an important social problem such as crime, which branch of psychology do you think is most suitable? Identify the field and discuss the concerns of the psychologist working in this field.
- 2) How can knowledge of the field of environmental psychology be used to promote environment friendly behavior?
- 3) What are the ethical guidelines that a psychologist needs to follow while conducting a psychological enquiry?
- 4) Prepare an essay on the limitations of psychological enquiry.
- 5) Do you agree with the statement that 'biology plays an enabling role, while specific aspects of behavior are related to cultural factors? Give reasons in support of your answer.
- 6) How does the autonomic nervous system help us in dealing with an emergency situation?
- 7) 'Environment of the child has a major role in the development of the child'. Support your answer with examples.
- 8) What are the challenges faced by individuals on entry to adulthood?
- 9) How do socio-cultural factors influence development?

What are the problems for which collaboration of psychologist with other disciplines can be fruitful? Take any problems to explain

Projects

- 1) Interview people from three different stages of life, for example, age 20 – 35, 35 – 60 and over 60 years of age and interview them and make a report on the following.
 - Major transitions that have taken place in their lives. How they feel these transitions have affected them? Compare the events considered important in different groups
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SUBJECT : MATHEMATICS

The holiday assignment is

1. To solve all the miscellaneous exercises of the concluded chapters.
2. To solve five questions of each chapter from any reference book like R.D.Sharma
Or Exam idea, or ML Agarwal etc.

ARABIC

1- المهارات الكتابية

اكتب في كتيب صغير موضوعا عن العطلة الصيفية وكيف قضيتها؟ ومتى؟ ومع من قضيتها؟ وهل استمتعت ام لا؟

2- المهارات النحوية والتراكيب

اكتب الاسم المجرور المتناسب لملء الفراغ مع الالتصاق لرسم الكسرة على آخره:



1- جلس الولد على



2- وضعت الكتب في



3- ذهبت مع صديقي إلى



4- تأخذ الصوف من

استخرج حرف الجر والاسم المجرور وعلامة جره من الفقرة
استيقظ في الصباح الباكر، وأنهض من السرير، وأغسل وجهي، أجلس على الكرسي
أتناول فطوري ثم أذهب للمدرسة :

حرف الجر	الاسم المجرور	علامة جره
.....
.....
.....
.....

الجملة الفعلية والجملة الاسمية

الهدف : يميز الطالب الجملة الاسمية من الجملة الفعلية

صنف الجمل التالية إلى اسمية وفعلية وفق الجدول :



- 1- يَبْنِي العَصْفُورُ عُشَّهُ فَوْقَ الشَّجَرَةِ .
- 2- الصَّبَارُ نَبَاتٌ يَعِيشُ فِي الصَّحْرَاءِ .
- 3- يَأْكُلُ الأَسَدُ اللُّحُومَ .
- 4- يَفْقِرُ الأَرْنَبُ بَيْنَ الأشْجَارِ .
- 5- أُمِّي تَزْعَانِي وَتَهْتَمُّ بِي
- 6- يَلْعَبُ أَحِي مَعِي كُرَةَ القَدَمِ .
- 7- الكَعْكَةُ لَدِيدَةٌ وَطَعْمُهَا حَلْوٌ .
- 8 - المَدِينَةُ شَوَارِعُهَا نَظِيفَةٌ .
- 9- يَسَاعِدُ أَبِي الفُقَرَاءَ .
- 10 - الولدُ مُؤَدَّبٌ .

الجملة الاسمية	الجملة الفعلية

اختر من العمود الأيسر فعلا واكتبه أمام الاسم المناسب له فيما يلي

كتب - رسم

شرب - رتب

شرح - رمى



..... المعلم الدرس .

.....اللاعب الكرة.

.....الطالب الواجب.

..... الطالب الحقيقية .

..... الطفل الحليب .

..... الفنان لوحة جميلة.

التنوين



اسمي

الأهداف: ١- أن يتعرف الطالب/ة التنوين.
٢- أن يتعرف الطالب/ة أنواع التنوين.

كان في بغداد رجلٌ ركبته ديونٌ كثيرةٌ وهو مفلسٌ، فأمر الحاكم بألا يُقرضه أحد من الناس شيئاً، ومن أقرضه فليصبر عليه، ولا يطالبه بديته. وأمر الحاكم بأن يُركب على دابة، ويطاف به في شوارع المدينة ليعرفه الناس، ويحترسوا من معاملته. فاستأجر المفلس دابة وطاقوا به في المدينة، ثم جاءوا به إلى باب داره. فلما نزل عن الدابة، قال له صاحبها: أعطني أجرة دابتي، فقال المفلس: وأي شيء كُنّا فيه من الصباح إلى هذا الوقت يا أحمق؟

أكتب الكلمات التي تنتهي بتنوين الضم، والفتح، والكسر كل كلمة في العمود المخصص لها.

كلمات تنتهي بتنوين الكسر

كلمات تنتهي بتنوين الفتح

كلمات تنتهي بتنوين الضم

توقيع ولي/ة الأمر:



الجمال الاسميّة والفعليّة



رقم ١٧

ف. يميز الطالب/ة الجملة الفعلية والجملة الاسمية

أتذكّر: الجملة الاسميّة التي تبدأ باسم والجملة الفعلية التي تبدأ بفاعل .
عزيزي/ عزيزتي الطالب/ة ، لون الجملة الفعلية باللون الأحمر والجملة الاسميّة باللون الأخضر .
(استخدم الألوان الخشبية)



أملأ الكوبين بجمليّ فعليّة وجمليّ اسميّة

Blank writing box for the first student.

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توقيع ولي/ة الأمر:

عزيزي/ عزيزتي المساعدة، تابع/ي اينك/ اينتك في توضيح ورقة العمل وتنفيذها.