



AL AIN JUNIORS, INDIAN SYSTEM
HOLIDAY ASSIGNMENT (2017- 18)

Grade: 12 Science

English

- 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 Lajpat Rai 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)Note making and summary – IV (page 83& 84) V (page 85 & 86)

PHYSICS

1. Physics project assigned should be submitted on 15-09-2017
2. Completion of physics record.
3. Preparation for half yearly examination.
4. CBSE board question paper analysis (Last 3 years)

CHEMISTRY

Topic: -Reasoning Questions

Give Reasons for the followings: -

1. Phenol is acidic in nature.
2. Phenol has a smaller dipole moment than methanol.
3. o-nitrophenol has lower boiling point (is more volatile) than p-nitrophenol.
4. Methanol is miscible with water while iodomethane is not.
5. Alcohols have higher boiling points than isomeric ethers.
6. Ethers are soluble in water alkanes are not.
7. The order of acidic strength in alcohols is $RCH_2OH > R_2CHOH > R_3COH$
8. During preparation of ester from alcohol and acid, water must be removed as soon as it is formed.
9. Ethers cannot be prepared by dehydration of secondary or tertiary alcohols.
10. Reaction of anisole with HI gives methyl iodide and phenol.

Do the following conversions: -

1. Ethene to 1,2-ethanediol
2. Phenol to Salicylaldehyde
3. Butanol to Butanoic acid
4. Ethanol to propanone
5. Phenol to salicylic acid
6. Methanol to Ethanol
7. Ethanol to propanol
8. Phenol to Benzyl Alcohol
9. Ethanal to propan-2-ol
10. 1-propanol to 2-bromopropane

Topic: - Identification Question

1. An organic compound 'A' having molecular formula C_3H_6 on treatment with aq. H_2SO_4 give 'B' which on treatment with Lucas reagent gives 'C'. The compound 'C' on treatment with ethanolic KOH gives back 'A'. Identify A, B, C.
2. An organic compound A (C_6H_6O) gives a characteristic colour with aq. $FeCl_3$ solution. (A) On reacting with CO_2 and NaOH at 400k under pressure gives (B) which on acidification gives a compound (C). The compound (C) reacts with acetyl chloride to give (D) which is a popular pain killer. Deduce the structure of A, B, C & D.
3. An organic compound (X) when dissolved in ether and treated with magnesium metal forms a compound Y. The compound, Y, on treatment with acetaldehyde and the product on acid hydrolysis gives isopropyl alcohol. Identify the compound X. What is the general name of the compounds of the type Y.
4. A compound 'A' with molecular formula $C_4H_{10}O$ on oxidation forms compound 'B' gives positive iodoform test and on reaction with CH_3MgBr followed by hydrolysis gives (c). Identify A, B & C.
5. An aromatic compound (A) having molecular formula C_6H_6O on treatment with $CHCl_3$ and KOH gives a mixture two isomers 'B' and 'C' both of 'B' & 'C' give same product 'D' when distilled with Zn dust. Oxidation of 'D' gives 'E' of formula $C_7H_6O_2$. The sodium salt of 'E' on heating with soda lime gives 'F' which may also be obtained by distilling 'A' with zinc dust. Identify compounds 'A' to 'F' giving sequence of reactions.
6. Compound 'A' of molecular formula $C_5H_{11}Br$ gives a compound 'B' of molecular formula $C_5H_{12}O$ when treated with aq. NaOH. On oxidation, the compound yields a mixture of acetic acid & propionic acid. Deduce the structure of A, B & C.

ASSIGNMENT: 2

1. PROJECT COMPLETION
2. RECORD BOOK COMPLETION

SUBMISSION DATE- 15TH SEPTEMBER

MATHS

As discussed in the class, complete the assignment in three steps.

Step 1: Learn and solve the solved examples before the exercises (10 days).

After a gap of 4 days

Step 2: solve the miscellaneous exercises (10 days).

After a gap of 4 days

Step 3: solve 5 questions of each chapter from R.D.Sharma. (5 days)

Finally solve the questions of the completed chapter from previous year board

Examination (2016-17) paper. (2 hours)

PSYCHOLOGY

- 1) To what extent is our intelligence the result of heredity (nature) and environment (nurture)? Prepare an essay.
- 2) Are there cultural differences in the conceptualization of intelligence?
- 3) What is the main proposition of humanistic approach to personality? What did Maslow mean by self-actualization?
- 4) Prepare an essay on the factors that lead to positive health and well-being?
- 5) Enumerate the different ways of coping with stress?
- 6) How does stress affect the immune system?
- 7) Explain the concept of stress. Give examples from daily life.
- 8) How is creativity related to intelligence?
- 9) All persons do not have the same intellectual capacity. How do individuals vary in their intellectual ability? Explain.
- 10) Describe the GAS model and illustrate the relevance of this model with the help of an example.

PROJECTS

- 1) Discuss with your parents and grandparents the unique stressors they face in their lives and how they cope with them.
- 2) Observe and interview 5 persons in your neighborhood in order to see how they differ from each other in terms of certain psychological attributes. Cover all the five domains. Prepare a psychological profile of each person and compare.
- 3) Select five persons whom you most admire, either from real life or from history. Collect information about their contributions in their respective fields and identify the characteristics in their personalities that have impressed you. Do you find any similarities? Prepare a comparative report.

BEAUTIFUL MIND – Movie watching

Watch the movie beautiful mind and prepare a detailed report of the schizophrenic symptoms of John Nash.

BIOLOGY

- **Individual project based on assigned topic.**
- **14 different topics are given to each student**
- **Record work**
- **See below for projects assigned:**
 1. To study of effects of antibiotics in microorganisms.
 2. To study of dispersal of seeds by various agencies.
 3. To study of canopy architecture of trees.
 4. To study of effect of Avenue Trees on Temperature under canopy and outside.
 5. To study of DNA in different species and animal cloning.
 6. To study of pollination in Sunflower and legumes.
 7. To study of chlorophyll content in five different species.
 8. To study of drug resistance in bacteria using antibiotics.
 9. To study of coaguable and non coaguable milk proteins Study of rate of pollen germination of various species in sugar and boron solution.
 10. To study of developmental stages of frog and cockroach.
 11. Behaviour of animals
 12. Metamorphosis of frog's tadpole.
 13. To study of plant growth affected by impurities.

Computer Science

Develop a project using C++ programming language.

Theme of the project can be:

- Any subsystem of a software tool
- Any scientific or fairly complex algorithmic situation
- School Management, Banking, Library Information System, Hotel or Hospital Management System, Transport Query System, Reservation System, etc.
- Quizzes / Games
- Tutor, Computer Aided learning system

Prepare a report on the project developed.

Complete the practical record (soft copy only).

Project prototype submission date: 10-07-2017 (send Email).

Beta version of project submission date: 11-09-2017.

Final project submission date: 20-11-2017.

Practical record and project report submission date: 10-12-2017

ARABIC

أولا القراءة

■ اختر الإجابة الصحيحة من الجدول ثم اكتبها في الفراغ المناسب فيما يأتي .:

سحابة - النعم - الفضاء - الأرض - الطقس - يميت - الصحراء

حفر جحا حفرة كبيرة في ووضع الكيس فيها

الله هو الذي يحيي و.....

صنع الإنسان الصاروخ ليحمله إلى

ذات يوم دخل الرجل الغني على بساتينه وقال لن تزول هذه

من فوائد الأقمار الصناعية دراسة

وضع جحا كيس النقود في الصحراء تحت.....

■ أكمل كتابة النص الآتي بكلمات مناسبة:

المؤمن : ستقوم الساعة
الكافر :

المؤمن : هل كفرت بالذي خلقك
الكافر

المؤمن : أنا مؤمن بالله
الكافر

المؤمن :
الكافر : أنا أكثر منك مالاً وولداً

المؤمن:.....
الكافر : لا أنا سبب هذه النعم

■ صل بين العبارتين المتناسبتين

صنع الإنسان الصاروخ

تقوم الأقمار الصناعية

ترسل الصور التلفازية

■ ماضد كلمة

حزن قليل كبير

ثانيا النحو :

■ استخراج من الفقرة مايلي

- لقد ترك لنا الأجداد الكثير من التراث الشعبي الذي يحق لنا ان نفتخر به ونحافظ

عليه ، ونطوره ليبقى ذخرا لهذا الوطن ، والأجيال القادمة

- الهوية نوعٌ من أنواع النشاط الذي يؤديه الإنسان في وقت الفراغ . توفر الهوية

الراحة بعد التعب كما توفر وسائل لقضاء الوقت بسعادة.

.....مبتدأخبر
.....فعل مضارعحرف جر
.....تاء مربوطةفاعل
.....مفعول بهاسم موصول
.....جمع تكسيرأداة نصب
.....تنوينصفة
.....جمع جيلمفرد الهوايات
.....ضد التعبجمع الجد

■ ضع خطاً تحت (المفعول به) في الجمل الآتية

تواجه المدرسة البرج العالي

قرأ الناس الكتاب

يصطاد الناس السمك

زرنا شاطئ البحر

شاهدت مسرحية في مسرح المدرسة

■ ضع أداة من أدوات النصب او الجزم المناسبة

(لا - لم - كي - ل)

1- تلعب بالثقب

2- يدرس محمود الدرس

3- نم مبكراً لتستيقظ مبكراً

4- أذهب إلى المسجد أصلي

5- أريد أنام مبكراً

6- تساعد أخاك

7- يسافر أحمد

■ حول الجملة الفعلية إلى اسمية والاسمية الى فعلية فيما يأتي :

..... يقابل المريض الطبيب

..... الأولاد يحبون الأم

■ اكتب الضمير المناسب في الأماكن الخالية مما بين القوسين

..... ذهبتُ إلى المدرسة (نحن - انا - انت)

..... يقرؤون القرآن (أنتم - انتن - هم)

■ حول الفعل المبني للمجهول إلى مبني للمعلوم فيما يأتي :

..... يُكْتَبُ الدرس

- يُعالج المريض
- ضع نائب فاعل في المكان الخالي
- تُفتح
- كُسِر
- (نو - ذا - أباك - ابيك - حميك - فاك - أخوك - لا)
- أين.....؟
- هذا بيت.....
- شكرت..... مال
- شاهدت..... في السوق
- أخي..... اخلاق
- تلعب في الشارع
- ذهبت إلى.....

- أدخل على الفعل المضارع في الجمل الآتية (لم) و (لن) مرة أخرى :
- يتأخر عن مدرسته
- أهمل واجباتي

ثالثا : المهارات القرائية

اقرأ الفقرة ثم اجب

حكم القاضي ببراءة رضوان ، لأن عبد السلام ليس عنده دليل ولا شهود . خرج رضوان مسرورا ببراءته . غضب عبد السلام وكتب شكوى إلى الخليفة ذكر فيها ماحصل مع صديقه التاجر الخائن وكان من عادة الخليفة أن يخرج في بعض الليالي مع وزيره ويتكران في ملابس التجار

1- بماذا حكم القاضي ؟ ولماذا ؟

.....

2- إلى من كتب عبدالسلام الشكوى ؟

.....

من هم شخصيات الفقرة السابقة ؟

.....
.....
4- ما هي عادة الخليفة ؟

.....
.....
■ رتب الجمل الاتية لتكون جملة مفيدة:

1- ثروة - جحا - في - الصحراء - ضاعت

.....
2- الاتصالات - الأقمار - الصناعية - تسهل - الهاتفية

.....
3- بدلة - يلبس - رائد - الفضاء

.....
4- البساتين - دمرت - الساعة

.....
5- عبداللطيف - البغدادي - الموصل - ولد - في

.....
رابعاً : الخط

اكتب مايلى بخط الرقعة

على الباغي تدور الدوائر

.....
.....
ابتسم الأسد عندما رأى الثور قادماً من بعيد