English:

Q1.a. Read the book "Wings of Fire" by A.P.J. Abdul Kalam and highlight 5 important incidents that you find to be inspiring.

b. Write a short note on the author.

Q2. Collect 5 news items on any <u>one</u> of the given issues. Mention the date and the source (newspaper/magazine) of information.

a. Environmental Issues
b. Technological development in the country
c. Issues concerning women and their protection

Paste pictures and the news item in the form of a scrap book. Make an attractive cover page.

Present both the topics in a folder.(Do not submit separate sheets of paper.)

MATHEMATICS:

1. Factorize $(x - 2y)^3 + (2y - 3z)^3 + (3z - x)^3$

2. Find a and b : $\frac{\sqrt{5}-2}{\sqrt{5}+2} - \frac{\sqrt{5}+2}{\sqrt{5}-2} = a + b\sqrt{5}$

3. Prove that $\frac{1}{3-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-2} = 5$

4. If $x = 3-2\sqrt{2}$, find i) $(x + \frac{1}{x})^2$ ii) $x - \frac{1}{x}$ iii) $x^2 + \frac{1}{x^2}$

5. The three vertices of a parallelogram ABCD are A(-2,2), B(6,2)and C(4 ,-3), Plot these points on a graph paper and hence use it to find the co ordinates of the fourth vertex D. Also write the coordinate of midpoint of CD. What is the area of ABCD?

6. Find the value of
$(x - a)^3 + (x - b)^3 + (x - c)^3 - 3(x - a)(x - b)(x - c)$ when
$a + b + c = 3x$

7. If $P(x) = x^3 + 3x^2 - 2x + 4$, find $P(4) + P(-1) - 3P(0)$

8. If the polynomials $(k x^3 + 3x^2 - 13)$ and $(5x^3 - 8x + k)$ leave the same remainders when divided by x +1,then find the value of k.

9. Find the product of $2x^2 - 2x + 4$ and $4x^2 + 5x + 3$ and hence find the coefficient of x^3.

10. Find the quotient and remainder by long division method. Also check your answer.

$(x^4 + 4x - 3x^2 + 10) \div (x^2 + 1 - x)$

BIOLOGY:

Answer all the questions on A4 sheet.

Draw well labelled diagrams where necessary.

1. What is the composition of protoplasm ?

2. What is the difference between diffusion and osmosis ?

3. Why is the plasma membrane called a selectively permeable membrane ?

4. State any two functions of Golgi body ?

5. If cells of onion peel and RBC are separately kept in hypotonic solution what will happen to them? Explain the observation.

6. Differentiate between plant and animal cell with suitable diagrams.

CHEMISTRY:

1. Answer the following:
a) How will you justify that ice, water and steam are not different substances but different states of same substance.
b) A rubber band is a solid, but it can change its shape. Why?
c) It is a hot summer day. Megha and Manish are wearing nylon and cotton clothes respectively. Who do you think would be more comfortable and Why?
d) How is high compressibility property of gas useful to us?
e) Explain an activity to show that rate of diffusion increases with the increase in temperature.
2. Make a Science Newsletter showing current news in the field of Science and Technology.

PHYSICS:

1. A car moving along a straight line at a speed of 54km/hr stops in 5s after the brakes are applied.
(a) Find the acceleration, assuming it to be constant.
(b) Plot the graph of speed versus time.
 (c) Using the graph find the distance covered by the car after the brakes are applied.

2. A body starts from rest and moves with a uniform acceleration of $5m/s^2$ for 5s and then it moves with a constant speed for 4s. Later it slows down at a uniform rate and comes to rest in 5s. Draw the speed graph for the motion of the body and answer the following questions:

a. What is the maximum velocity attained by the body?
b. What is the distance travelled during this period of acceleration?
c. What is distance travelled when the body was moving with constant velocity?
 d. What is the retardation of the body while slowing down?
 e. What is the distance travelled while retarding?
 f. What is the total distance travelled?

 3. Modify the three equations of motion for an object that starts from rest.

4. Modify the first & the third equation of motion when a moving body comes to rest.

5. Plot a speed-time graph for:
(i) a stone thrown vertically upwards, reaches the maximum height then falls back to the point of projection.
(ii) a rubber ball dropped vertically downward from a height, strikes the ground then bounces back to the original height.

SOCIAL SCIENCE:

Disaster Management project

- Prepare a handbook (20'x15') of 10 pages.
- It should include the following details

a. Brief introduction about disaster.
b. Causes of the disaster.
c. Areas prone to disaster (represented on a political map of India)
d. Do's and Don'ts
e. Drawings/ illustrations of the equipments used during rescue operations (oxygen, torches,etc.)
f. First aid checklist required for the disaster.

COMPUTER APPLICATIONS:

Wilson Public School is organizing a number of inter-school competitions. A circular has to be sent to different schools giving details about the competitions. Design a circular for the same and also design the entry form to be filled by the schools for taking part in the competition.

Page 1 : General Instructions and Event 1(Content & Design given)

Page 2 : Event 2 and rules (Design it yourself)

Page 3: Entry form (Design & Format given)

Project 1

Wilson Public School
New Delhi
Email – wilsonschools@gmail.com

An Inter School Event
10th May
General Instructions

The host school will participate but will not complete.
The entries are to be sent through e-mail only latest by 25 April.
The reporting time is 8.00 am
The decision of judges will be final.
The school scoring the maximum marks will be awarded the winning trophy.

Event 1: Let's Debate
Topic   : Book should be replaced by laptops in Schools
Participants   : 3
Classes   : Classes IX & X
Time   : 3minutes
Venue   : School Auditorium

Rules
- One participant will speak in favour and one against: the third participant will be the interjector.
- Each speaker will be asked questions by the interjector. However, the interjector will not be allowed to question the participants of their own school.
- The criteria for awarding marks will be the quality of content and the presentation in case of speakers, and the relevance of the questions posed in case of interjector.

Event 2 : Movie Making Competition : (Note : Create yourself)

Entry Form:

Name of the School : _____

Address: _____

_____

Email : _____

Phone No: _____

S. No	Event	Name of the participants/ Class	Name and phone no.of the teacher
1.	LET'S DEBATE		
2.	MOVIE MAKING		

HINDI:

पाठ 'दुख का अधिकार' में वृद्धा स्त्री अपने पुत्र की मृत्यु के बाद जब बाज़ार में ख़रबूजे बेचने गइ,तब लोगों ने उसे जो अपशब्द कहे और उसके साथ अनुचित व्यवहार किया, उसके बारे में अपने मित्र के साथ 50-60 शब्दों में संवाद लेखन कीजिए।कार्य हिंदी कॉपी में ही कीजिए।

SANSKRIT:

प्रश्न 1 गद्यांशं पठित्वा प्रश्नान् उत्तरत -

दीपावली प्राचीनतमं पर्व। अस्मिन् दिने सर्वाधिकम् आकर्षकं मनोरञ्जञ्च भवति स्फोटकानाम् आस्फोटनम्। विचित्राणि वर्णयुक्तानि स्फोटकानि आकाशे भूमौ च विविधरूपाणि दर्शयन्ति। जना: तानि दृष्ट्वा तुष्यन्ति। परन्तु अति सर्वत्र वर्जयेत्। रात्रौ आस्फोटकानां शब्द: कर्णौ बधिरीकरोति वायुमण्डलं च दूषयति। पूर्वं जनसंख्या सीमिता आसीत्। वृक्षा: वायुं शुद्धं कुर्वन्ति स्म। इदानीम् जनसंख्या प्रवृद्धा, वृक्षसंख्या क्षीणा। विस्फोटकेभ्य: निर्गत: धूम: रुग्णान् पीडयति, नवजातशिशुभ्य: हानिकर: सिध्यति। दीपावली-समये शरदि आकाश: निर्मल: भवति। सर्वत्र पवित्रता विराजते। अत: वयम् आनन्देन दीपावलीम् मानयेम, वसुन्धरां भूषिताम् कुर्याम न तु दूषिताम्। सर्वेषां जीवनं सुखमयं भवेत्। किं तेन उत्सवेन य: कस्मैचित् अपि कष्टकर: भवेत्? 'मा कश्चिद् दु:खभाग भवेत्' इति अस्माकम् आदर्श:।   10

प्रश्ना:

I. **एकपदेन उत्तरत।** (एक पद में उत्तर दीजिए। Answer in one word only.)   ½ × 4 = 2

   (i) केषाम् आस्फोटनम् सर्वेभ्य: आकर्षकम् मनोरञ्जकम् च?

   (ii) दीपावली कस्यां ऋतौ भवति?

   (iii) के वायुं शुद्धं कुर्वन्ति?

   (iv) सर्वेषां जीवनं कीदृशं भवेत्?

II. **पूर्णवाक्येन उत्तरत।** (पूर्ण वाक्य में उत्तर दीजिए। Answer in a complete sentence.)   1 × 2 = 2

   (i) अस्माकं क: आदर्श:?   (ii) स्फोटकानां धूम: कान् पीडयति?

III. **अस्य अनुच्छेदस्य कृते समुचितं शीर्षकं लिखत।**   2 × 1 = 2

   (इस अनुच्छेद के लिए समुचित शीर्षक लिखिए। Write a suitable title for this paragraph.)

IV. **भाषिककार्यम्।** (भाषा संबंधी कार्य। Work of Language.)   1 × 4 = 4

   (i) 'प्रवृद्धा' इत्यस्य किं विलोमपदम् अत्र प्रयुक्तम्?

   (क) क्षीणा   (ख) निर्गत: (ग) दूषिता   (घ) निर्मला

   (ii) 'सर्वत्र पवित्रता विराजते' अत्र किं अव्ययपदम्?

   (क) पवित्रता   (ख) विराज   (ग) विराजते   (घ) सर्वत्र

   (iii) 'पर्व' इत्यस्य किं विशेषणम् अत्र प्रयुक्तम्?

   (क) सर्वाधिकं   (ख) प्राचीनतमम्   (ग) प्राचीनं   (घ) पूर्वम्

   (iv) 'लाभकर:' इत्यस्य किं विपर्ययपदं प्रयुक्तम्?

   (क) पवित्रकर: (ख) न्यूनतर: (ग) निर्गत: (घ) हानिकर:

प्रश्न 2 निर्देशानुसारं उत्तरत -

(i) त्, ग्, च्, ह्, क् वर्णेषु क: वर्ण: तालव्य: ?

    (अ) त्   (ब) ग्   (स) च्   (द) ह्

(ii) 'क्रीडति' इति पदे मूर्धन्य: वर्ण: किम् अस्ति ?

    (अ) ई   (ब) ड्   (स) त्   (द) क्

(iii) 'यदि' शब्दे क: वर्ण: देन्व्य: अस्ति ?

    (अ) य्   (ब) द्   (स) अ   (द) इ

रिक्तस्थानानि पूरयत—

(iv) मन्त्री = म् + ... + न् + त् + र् + ई।

    (अ) न   (ब) अ   (स) इ   (द) आ

(v) प् + र् + अ + य् + ओ + ज् + अ + न् + अ + म् = ...

    (अ) परयोजनम्   (ब) पर्योजनम्   (स) प्रयोजनम्   (द) पर्योजनम

प्रश्न 3 पत्रं पठित्वा रिक्तस्थानानि पूरयत –

1. सुकन्या कोलकातानगरे छात्रावासे निवसति। सा विद्यालयतः शैक्षिकभ्रमणाय भुवनेश्वरं गन्तुम् इच्छति। एतदर्थम् अनुमतिं राशिं च प्राप्तुं सा नवदिल्लीस्थं पितरं प्रति पत्रम् एकं लिखति। मञ्जूषातः पदानि विचित्य पत्रे रिक्तस्थानानि पूरयन्तु।

<div align="right">

छात्रावासः

राजकीयः विद्यालयः

(i) ⋯⋯⋯⋯⋯⋯

तिथि: 25-2-2001

</div>

माननीयाः पितृवर्याः,

   सादरं प्रणमामि।

   भवतः पत्रं प्राप्तम्। मम (ii) ⋯⋯⋯⋯⋯⋯ परीक्षा समाप्ता। परीक्षापत्राणि अतिशोभनानि जातानि। यावत् परीक्षापरिणामः न आगच्छति तावत् आगामिमासस्य प्रथमसप्ताहे (iii) ⋯⋯⋯⋯⋯⋯ विद्यालयस्य अध्यापिकाः अस्मान् शैक्षिकभ्रमणाय (iv) ⋯⋯⋯⋯⋯⋯ नेष्यन्ति। अहम् अपि ताभिः (v) ⋯⋯⋯⋯⋯⋯ गन्तुम् इच्छामि। एतदर्थम् मया कक्षाध्यापिकायै (vi) ⋯⋯⋯⋯⋯⋯ रूप्यकाणि दातव्यानि सन्ति। अतः यदि अनुमतिः (vii) ⋯⋯⋯⋯⋯⋯ तर्हि अहम् अपि गच्छेयम्। ज्ञानवर्धनार्थम् एतत् अतिरिच्य अवसरं च पश्यामि। अतः कृपया उपर्युक्तां राशिं प्रेषयित्वा माम् अनुगृहीतां कुर्वन्तु।

   सर्वेभ्यः मम (viii) ⋯⋯⋯⋯⋯⋯ निवेदनीयाः।

<div align="right">

भवतां प्रिया (ix) ⋯⋯⋯⋯⋯⋯ ।

सुकन्या

</div>

पत्रवेष्टनम्

सविधे
श्री प्रणवभट्टाचार्यः
26, चितरञ्जनपार्कः
नवदिल्ली (x) ⋯⋯⋯⋯⋯⋯

मञ्जूषा
प्रणामाः, सह, कोलकातातः, स्यात्, पञ्चशतम्, 110019, भुवनेश्वरम्, प्रथमसत्रीया, मम, पुत्री