



BAHRIA COLLEGE KARSAZ

SUMMER VACATIONS HOMEWORK – 2018

FOR CLASS XI (FEDERAL & KARACHI BOARD)

(PHYSICS)

Answer the following question:

Q 1 what is science? Define physical and biological sciences? what is the role of physics in our daily life?

Q2 define distance time graph? And the speed time graph?

- When the object is at rest
- When the object is moving with uniform speed
- When the object is moving with variable speed
- When the object has zero acceleration
- when the object is moving with uniform acceleration.

Q3 what is centripetal and centrifugal force? Derive the mathematical relation for centripetal force and acceleration?

What is friction? Explain the role of friction in braking and skidding?

Q3 Explain the gravitational field? State Newton's law of gravitation?
Define energy describe the various kind of energy?

Q4 what is Conduction? Explain the process and write down it usage in our daily life. What are Bad conductors or Insulator?

Q5 Write the factors on which loudness of the sound depends

Q6 what are laws of Refraction? Define critical angle? What is the total internal reflection? Write its conditions?

Q 7 Write down the properties of Alpha, Beta and Gamma rays. What do you mean by half life? What is meant by fission chain reaction? How can it be controlled? What is fusion reaction?

Projects XI

- How to make air compressor.
- How to generate Electricity by a fidget spinner?

(ENGLISH)

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- Read Chapter 1 to 3 from your text book and develop at least 15 questions and 25 MCQs from each text.
- Read Chapter 1 to 3 from your text book and make a list of 25 words from each text providing two synonyms for the selected word.
- Make a list of 50 idioms and phrasal verbs and use each in a sentence.
- Write five paragraphs based on the following themes:
 - Science and Technology
 - Sports
 - Education

KARACHI BOARD

- Write a paragraph expressing your feeling. If you get a chance to be patriotic to your country. How would you execute it (length of paras. 100 words)
- Prepare a power-point presentation on 'City and Village Lie' (Max No. of slides 10)

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- Prepare a hand-book, pasting pictures, drawings and write a paragraph on safety rules of rules of traffic system.
- Write a letter to the Editor, for Dawn's Editorial page. Highlight the increasing problems due to pollution. Request the concerned authorities for talking measures resolving the issue.

(BIOLOGY)

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1. Create an innovative idea for science project based on requirements, presentation draft, expected results and application.
2. Explain the role of immune system in organ transplant.
3. Multimedia presentation
 - a. Animal cell (Organelles and functions)
 - b. Enzyme action
4. List major hospitals or cardiology working in your province.
5. Bacteria make life on earth possible. Why?

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1. Multimedia presentation
 - a. Significance of biology
 - b. Modern research in the field of biology
2. Design an experiment to show the process of:
 - a. Transpiration
 - b. Osmosis
3. Make a chart of native plant and animal species of Pakistan, illustrate with scientific name.
4. Create an innovative idea for science project based on requirements, presentation draft, expected results and application.

(CHEMISTRY)

Q1. Search and prepare science project related to chemistry either working or still.

(MATHS)

1. Solve following by quadratic formula or by perfect square method:
 - i. $x^2 + 5x + 6 = 0$
 - ii. $2x^2 - 7x + 5 = 0$
 - iii. $x^2 + 4x + 4 = 0$
2. Factorize the following:
 - i. $2y^2 + 5y + 3 = 0$
 - ii. $7x^2 + 2x - 1 = 0$
 - iii. $x^2 - 2x - 195 = 0$
3. Simplify the following:
 - i. $\left(\frac{x^a}{x^b}\right)^{a+b} \times \left(\frac{x^b}{x^c}\right)^{b+c} \times \left(\frac{x^c}{x^a}\right)^{c+a}$
 - ii. $(5^2)^3 \div 5^{2^3}$
 - iii. $\sqrt{\frac{(216)^{1/3} \times 25}{(0.04)^{1/2}}}$
4. Verify the following:
 - i. $\frac{1+\cos\theta}{\sin\theta} + \frac{\sin\theta}{1+\cos\theta} = 2 \operatorname{cosec}\theta$
 - ii. $\sin^3\theta = \sin\theta - \sin\theta \cos^2\theta$
 - iii. $\sqrt{\frac{\sec\theta+1}{\sec\theta-1}} = \frac{\sec\theta+1}{\tan\theta-1}$
5. Plot the graph and find the solution set:
 - i. $2x + y = 0$
 - ii. $3x - y = 2$
6. Verif $A \cdot A^{-1} = A^{-1} \cdot A = I$
If $A = \begin{bmatrix} 2 & 3 \\ 4 & 5 \end{bmatrix}$
7. Find mean, median and mode for the following data:

Length	Frequency
20 – 22	3
23 – 25	6
26 – 28	12
29 – 31	9
32 – 34	2

(ISLAMIAT)

- ☆ نصاب کتاب میں موجود آیات قرآنی اور احادیث مبارکہ کا ترجمہ یاد کریں۔
- ☆ روزمرہ زندگی سے متعلق کوئی سے متعلق کوئی سی پندرہ (۱۵) دعائیں یاد کریں۔
- ☆ رکن اسلام ”روزہ“ پر ایک جامع پریزنٹیشن تیار کریں۔

(URDU)

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- ☆ نصاب میں شامل شعراء میں سے دس پسندیدہ اشعار خوشخطی کر کے لائیں۔
- ☆ شامل نصاب سبق ”اردو نثر ایک جائزہ“ کا مطالعہ کر کے آئیے۔
- ☆ مضمون ”بائسیکل کی تعلیم“ کا مطالعہ کرنے کے بعد اپنی زندگی کا کوئی ایسا ہی واقعہ قلمبند کیجئے۔
- ☆ مضمون ”رسم و رواج کی پابندی کے نقصانات کا مطالعہ کرنے کے بعد کیا آپ سرسید کے نظریے سے متفق ہیں؟ وضاحت سے بیان کیجئے۔

FEDERAL BOARD

- ☆ مشہور مزاح نگار پطرس بخاری کے مزاحیہ مضامین کی کتاب ”مضامین پطرسی“ کا مطالعہ کریں اور مختصر اپنی رائے کا اظہار کریں۔
- ☆ اپنی کسی بھی اردو کی سابقہ کتاب سے ”قافیہ“ اور ”ردیف“ کی تعریف پڑھنی اور مرزا اسد اللہ خاں غالب کی اپنی پسند کی تین غزلوں میں ”قافیہ“ اور ”ردیف“ کی نشان دہی کریں۔
- ☆ ان چھٹیوں میں آپ نے کسی جگہ کا سفر کیا؟ اسی سفر کی روداد بیان کریں۔ (دلچسپ، سبق آموز، چونکا دینے والے واقعات لازمی ذکر کریں)۔
- ☆ گیارہویں جماعت کی اپنی کتاب کے حصہ نغزل میں احمد ندیم قاسمی اور فیض احمد فیض کی غزلوں کے مطالعہ اور مقطع خوش تحریر کریں۔

(COMMERCE)

- Q1. What are the reasons for selecting commerce as a subject?
- Q2. Name the Multinational Companies operating in Pakistan. (Any Five)
- Q3. Highlight the main reasons for the downfall of NOKIA Company over the years. (Any Five)
- Q4. Q-Mobile constitutes a major portion of mobile market. List the reasons. (Any Five)
- Q5. Explain the term target market and highlight the target market for the following:
* KFC * MAGNUM ICECREAM * LIFE BUOY SOAP * IPHONE
- Q6. Search the current values for the following for Pakistan:
*GDP *GNP *Economic Growth rate * Population Growth Rate
- Q7. Name the competitors in front of each product (Mention the main competitor):

Names of Product	Name of Cut throat competitor
PEPSI	
SAMSUNG	
LUX	
ARIEL	
COLGATE	