

# MODEL PAPER

Total Time: 2:40 Hours

Total Marks: 53

## Physics (9<sup>th</sup>)

(Full Course)

### "Section-B"

Marks: 32

Write short answers to any eight (8) of the following parts. All parts carry equal marks.

- Q.1. You have an irregularly shaped stone. How would you find its volume?
- Q.2. If a body attains a speed of 20m/s in 2.0 seconds. Find distance covered?
- Q.3. Explain the term "inertia" with the help of a suitable example.
- Q.4. Find mathematically by what factor the centripetal force changes if mass of a body is doubled.
- Q.5. A force of 30 N is applied on a body at an angle of 45 with x-axis. Find horizontal and vertical component of the applied force?
- Q.6. What are the necessary conditions for an object to be in equilibrium?
- Q.7. State the law which gives us force of attraction between two bodies in the universe with mathematical form.
- Q.8. Differentiate between work and power. Support your answer with suitable example.
- Q.9. Define potential energy. Calculate the change in P.E when mass is doubled.
- Q.10 Explain through concept of pressure that it is easy to break two walnuts by squeezing in the hand than one.
- Q.11 Formulate an equation for conversion between Centigrade and Fahrenheit scale.

### "Section-C"

Marks: 21

Note: - Answer any three (3) questions. All questions carry equal marks.

- Q.12 (a) Provide an example to illustrate that displacement can be zero while distance traveled is not. When distance and displacement are equal? (4)
- (b) Determine the average speed of a runner who completes one lap around a 240 m circular track in 20 seconds. (3)
- Q.13 (a) Define the term momentum. Derive the relationship between force and change in momentum. (4)
- (b) If a force of 50 N acts on a body for 20 seconds. Find change in momentum of the body. (3)
- Q.14 (a) Which force holds satellite to revolve around the Earth? Derive an equation for Orbital speed of satellite. (4)
- (b) If a satellite orbits the Earth at 2000 km above sea level, how fast must the orbiting satellite travel to maintain a circular orbit? (3)
- Q.15 (a) Define stress and strain for an extended wire under tension with their mathematical form. (4)
- (b) An electric wire of length 4.0 m and cross sectional area 0.03 m is stretched 0.01 m by 400 N weight. Find young's modular for the wire. (3)

Total Time: 2:40 Hours

MODEL PAPER  
Chemistry (9<sup>th</sup>)  
(Full Course)

Total Marks: 53

"Section-B"

Marks: 32

Write short answers to any eight (8) of the following parts. All parts carry equal marks.

- Q.1. Define Hydrogen Bond and give its one application.
- Q.2. Explain briefly: (i) Periods (ii) shortest periods (iii) short periods
- Q.3. Write four uses of Mg in our daily life.
- Q.4. If 16g of Methyl Alcohol is dissolved in 100ml of a solution. Calculate its morality.
- Q.5. Define electroplating and write its 3 advantages.
- Q.6. Draw the Dot and Cross diagram for each of the following:  
(i)  $\text{BCl}_3$  (ii)  $\text{O}_2$  (iii)  $\text{NH}_3$
- Q.7. Explain why meat takes longer time to cook at high altitude (hilly area).
- Q.8. Differentiate between Evaporation and Diffusion of Gases.
- Q.9. Explain the intermolecular forces and write its 2 types.
- Q.10. How many atoms are present in each of the following:  
(i) Co and CO (ii)  $\text{PoCl}_2$  and  $\text{POCl}_3$  (iii) HF and Hf (iv) CuS and  $\text{COCl}_2$
- Q.11. Calculate the molar mass or formula masses of the following compounds: (a)  $\text{C}_2\text{H}_6$   
(b) NaCl (c)  $\text{C}_6\text{H}_{12}\text{O}_6$  (d)  $\text{H}_2\text{O}$  .atomic masses: C=12, H=1, Na=23 CL=35.5, O=16

"Section-C"

Marks: 21

Note: - Answer any three (3) questions. All questions carry equal marks.

- Q.12 (a) Show main difference between single, double and triple covalent bond with the help of examples. (3)
- (b) Identify the element which is oxidized in the given reaction:  $\text{Zn} + \text{CuO} \rightarrow \text{ZnO} + \text{Cu}$  (4)
- Q.13 (a) Differentiate between representative elements and transition elements with example of each one. Also name the 1<sup>st</sup> representative element of Group IV. (3)
- (b) Explain protium, deuterium and tritium and show various particles on these isotops. (4)
- Q.14 (a) Give a detail relationship between volume and Temperature of a gas at constant pressure. Also give Mathematical form of Charles's laws. (3)
- (b) How much amount of NaOH is required to prepare 0.1 Molar Solution. (4)
- Q.15 (a) Explain corrosion and write 2 methods for corrosion prevention. (3)
- (b) Pure Gold is not used for ornaments. Give the reason. (4)

# MODEL PAPER

Total Time: 2:40 Hours

## Chemistry (10<sup>th</sup>)

Total Marks: 53

(Full Course)

### "Section-B"

Marks: 32

Write short answers to any eight (8) of the following parts. All parts carry equal marks.

- Q.1. Draw the Electron Dot and Cross structure for given compounds.  
(a) Butene (b) Pentyne
- Q.2. How Ethylene glycol is formed by the reaction of Ethen and  $\text{KMnO}_4$ .
- Q.3. Why addition reaction does not occur in Alkane but occur in Alkene and Alkyne?
- Q.4. Distinguish between fats and oils.
- Q.5. Define Lewis Acid and bases and show that  $\text{NH}_3$  acts as a Lewis base?
- Q.6. Write the name of sources of (i) Oxalic Acid (ii) Formic Acid (iii) Malic Acid (iv) Acetic Acid
- Q.7. Write the molecular and structural formula of the given compounds.  
(i)  $\text{H}_3\text{C}(\text{CH}_2)_5\text{CH}_3$  (ii)  $\text{CH}_3(\text{CH}_2)_3\text{CH}_3$
- Q.8. Write three functions of DNA.
- Q.9. Write the 2<sup>nd</sup> layer of Atmosphere and write its major component and its importance.
- Q.10. What are Air Pollutants? Write their types with examples.
- Q.11. Write the reasons that water acts as a Universal Solvent.

### "Section-C"

Marks: 21

Note: - Answer any three (3) questions. All questions carry equal marks.

- Q.12. (a) Identify functional groups in each of the following. (5)  
(i)  $\text{CH}_3\text{-CH}_2\text{-Cl}$  (ii)  $\text{CH}_3\text{-CH}_2\text{-NH}_2$  (iii)  $\text{CH}_3\text{-CH}_2\text{-O-CH}_3$  (iv)  $\text{CH}_3\text{-OH}$
- (b) Write the causes of Global Warming. (2)
- Q.13. (a) Which compounds produce (cause) permanent Hardness of water. And how this hardness be removed by ION Exchange Method? (4)
- (b) Write the products of Hydrolysis of Sucrose, Maltose and Lactose in equation form? (3)
- Q.14. (a) Differentiate between cyclic and acyclic organic compounds with the help of examples. (4)
- (b) Explain why organic compounds are volatile in nature? (3)
- Q.15. (a) Differentiate between Neutral, Acidic and Basic Solutions on the basis of Hydrogen ION  $[\text{H}^+]$  and  $[\text{OH}^-]$  concentration. (4)
- (b) Write equilibrium constant Expression (KC) for the given reactions. (3)  
(i)  $3\text{H}_2 + \text{N}_2 \rightleftharpoons 2\text{NH}_3$  (ii)  $\text{PCl}_3 + \text{Cl}_2 \rightleftharpoons \text{PCl}_5$  (iii)  $\text{N}_2 + \text{O}_2 \rightleftharpoons 2\text{NO}$

# MODEL PAPER

Total Time: 2:40 Hours

## Physics (10<sup>th</sup>) (Full Course)

Total Marks: 53

### "Section-B"

Marks: 32

Write short answers to any eight (8) of the following parts. All parts carry equal marks.

- Q.1. In longitudinal waves explain the regions where density and pressure changes relative to equilibrium density and pressure.
- Q.2. Explain how loudness of sound is related to area of vibrating object and distance from source.
- Q.3. Explain the reason why we perceive lightning before thunder during a thunderstorm.
- Q.4. When light strikes a smooth shiny surface what happens to it? Also state the laws under which this occurs.
- Q.5. If distance between two same point charges is halved. Explain mathematically the effect on .....between them.
- Q.6. When two capacitors  $c_1$  and  $c_2$  are connected in parallel. Find its equivalent with capacitance support your answer with diagram.
- Q.7. If 50 coulomb of charge is passing through a cross section of a conductor in 2.0 seconds. Find electric current flowing through it.
- Q.8. What is DC motor? Also write the principle on which it works.
- Q.9. How the input A.C voltage supplied to a transformer can be increased or decreased.
- Q.10 Draw diagrams and truth table for both AND and OR logic gates.
- Q.11 Define telecommunication. Write names of telecommunication devices.

### "Section-C"

Marks: 21

Note: - Answer any three (3) questions. All questions carry equal marks.

- Q.12 (a) Explain the changes occur in K.E and P.E for a vibrating simple pendulum about its mean position. (4)
- (b) Find frequency of simple pendulum of length 1cm on surface of Earth. (3)
- Q.13 (a) Formulate an equation among object distance (d) image distance ( $d_i$ ) from mirror of focal length. (4)
- (b) If an object is lying at distance of 10 cm from concave mirror of focal length 5cm, find where the image is formed? (3)
- Q.14 (a) State the law which gives relation between current and voltage i.e  $I \propto V$ . also write it's mathematical form. (4)
- (b) A 20.0 volt battery is connected to a  $5.0 \Omega$  resistor. What is the current in the circuit? (3)
- Q.15 (a) Define and explain the nuclear process in which heavy nuclei converts into intermediate size nuclei with some free neutrons. (4)
- (b) You have a 100hg polonium sample. It decays by  $\alpha$ - emission with a half-life of 3.0 min. How much of pure sample is left after 6.0 min? (3)

Time Allowed: 2:40 Hours

## MODEL PAPER

English (9<sup>th</sup>)  
(Full Course)

Total Marks: 60

### "Section-B"

Marks: 36

Answer any six questions from Q.No 1 to Q.No 8 of section B. Questions No 9, 10 and 11 of section B are compulsory. (18)

- Q.1. How is the youth standard bearer of a nation?  
Q.2. Why had people become homeless?  
Q.3. What was necessary for the creation of an Islamic empire?  
Q.4. How did the Jew learn a bitter lesson?  
Q.5. Use the prepositions in sentences: in, at, by.  
Q.6. Pick out verbs from the given list: put, hut, cut, nut, shut, but.  
Q.7. Give brief description of the angel in the poem "Abu Ben Adhem."  
Q.8. How does technology help in transportation?

Q.9. Paraphrase any one (1) of the following stanzas. (5)

- (i) Hope is the thing with feathers-  
That perches in the soul-  
And sings the tune without the words-  
And never stops-at all-
- (ii) Her brood gone from her,  
And her thoughts as still  
As the waters  
Under a ruined mill.

Q.10. Read the following stanza carefully and answer the questions given at the end. (8)

Continuous as the stars that shine  
And twinkle on the milky way,  
They stretch in never-ending line  
Along the margin of a bay.

Questions:

(2 each)

- (i) Which figure of speech is used in the first line of the stanza?  
(ii) Where do the stars shine?  
(iii) Where are the flowers spread?  
(iv) What is the name of the poem and poet?

Q.11. Read the following passage carefully and answer the questions given at the end. (5)

Muhammad Ali Jinnah was at this time tired and far from well but he had the satisfaction of knowing that the greater part of his work was done. By the force of his determination and leadership, a people who had once been a defeated group, with little to hope for, in an empire ruled by a foreign power, had become the greatest of the Muslim states and the 5<sup>th</sup> largest nation in the world. Seventy million people, who once had no country to call their own, had become a nation.

Questions:

(1 each)

- (i) Who was tired and ill?  
(ii) Why was Quaid -e-Azam satisfied?  
(iii) How did he get a country?  
(iv) Which foreign power ruled over India?  
(v) What was the population of Pakistan at that time?

### "Section-C"

Marks: 24

Attempt all the four Questions of this section.

Q.12. Translate the following into Urdu. (6)

Lahore is an ancient city. It is the cultural hub of Pakistan. It is renowned for its rich history.

- (i) He is my right hand.  
(ii) It is a lame excuse.  
(iii) Truth is evergreen.

Q.13. Write an application to your Principal/Head Master for character certificate. (6)

OR

Write a letter to your friend to attend the marriage ceremony of your brother.

Q.14. Write a story with the help of the given outline. (6)

A lion is sleeping in the forest .....a mouse jumps on him.....lion catches him.....spares his life.....lion caught in a net .....the mouse cut the net.....lion is free..... Moral.

Q.15. Translate the following into English. (6)

(iii) میں روزے سے ہوں۔

(ii) کیا آپ میرا ساتھ دیں گے؟

(i) مرنے والے دے رہی ہے۔

(vi) اتفاق میں برکت ہے۔

(v) دو پیدل کول جاتا ہے۔

(iv) فرمان دو گھنٹوں سے حرکت نہیں رہا ہے۔

# MODEL PAPER

Time Allowed: 2:40 Hours

## English (10<sup>th</sup>)

Total Marks: 60

(Full Course)

**"Section-B"**

Marks: 36

Read the following passage carefully and answer any six from question No 1 to question No 7. The rest of the questions in the paper are compulsory,

Humility and simplicity were ingrained traits of Hazrat Muhammad (SAW) personality. He never made people feel small, unwanted or embarrassed. He urged his followers to live decently and kindly. He would set wherever there was a place available in an assembly and never sought a prominent or elevated place. He never wore anything that could distinguish him from his companions. He would meet the affluent and the impoverished alike and never made distinction of on the basis of caste, creed and colour. People who did not know him could not tell him apart from the rest of his comrades. (18)

- Q.1. What were the two traits of the personality of the Holy Prophet (SAW)?  
Q.2. How did he treat his followers?  
Q.3. How did he interact with people of different social classes?  
Q.4. Pick out three irregular verbs from the passage.  
Q.5. Write meanings of the underlined words.  
Q.6. What type of clothes did he wear?  
Q.7. How can we apply the teachings of the Holy Prophet (SAW) in our daily life?  
Q.8. Paraphrase the following stanza. (5)

Hold fast to dreams  
For when dreams go  
Life is a barren field  
Frozen with snow

- Q.9. Read the following stanza carefully and answer the questions given at the end. (8)  
In spite of war, in spite of death,  
In spite of all man's sufferings,  
Something within me laughs and sings  
And I must praise with all my breath.as

Questions:

- (i) What does war bring? (ii) What does the poet praise in the stanza?  
(iii) What are the rhyming words in the stanza? (iv) Write the name of the poet and the poem.

- Q.10 Change the narration: (2)  
(i) He said to me, "Are you a student?" ( Change Narration)  
(ii) He forbade the students to waste their time. ( Change Narration)  
Q.11 Do as directed: (i) They gave us a gift. ( Change into interrogative) (3)  
(ii) Farhan will have finished the work. (Change into Negative)  
(iii) He is older \_\_\_\_\_ me. (Fill in the blank).

**"Section-C"**

Marks: 24

- Q.12. Write an essay on any one of the following topics. (10)  
(i) My Neighbor (ii) Pollution  
Q.13. Translate the given passage and sentences from English to Urdu. (8)  
A green heron is a bird. It waits into shallow water looking for fish and frogs. The heron stands so still that it is hard to see it.  
(i) Might is right.  
(ii) He is blind of one eye.  
(iii) He had not abused me.  
(iv) They do not obey their parents.

Q.14. Translate the following into English:

1. آنے سے پہلے مر بیٹھ کر چکا تھا۔ آپ کی گھڑی میں کیا وقت ہے؟ 2۔ سخت کر دوڑ نہ ٹل ہو جاوے۔ 3۔ میں ہمیشہ بڑوں کا احترام کرتا ہوں۔ 4۔ اسلام افسانہ کا رین ہے۔ 5۔ یہ مر جھایا ہوا پھول ہے۔ 6۔ ڈاکٹر کے

OR

Write a dialogue between two friends about the use of mobile in twelve lines. (6)