**1 Year [NEET 2025]**

**Timing: 00:00 AM to 00:00 PM Duration : 30 Minutes**

**Date: 00/10/2023 Maximum Marks: 120**

**For Students Currently in Class 11th (Stream: Medical)**

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| **PAPER SCHEME :*** The paper contains **30** Objective Type Questions divided into three sections: **Section - I (Physics), Section - II (Chemistry) and Section - III (Biology)**.
* **Section I and II** contain **10** Multiple Choice Questions each and **Section III** contains **10** questions. Each question has 4 choices (A), (B), (C) and (D), out of which **ONLY ONE CHOICE is correct**.
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| **MARKING SCHEME :*** For each question in Section-I, II and III, **4 marks** will be awarded for correct answer and **–1 negative marking** for incorrect answer.
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| **GENERAL INSTRUCTIONS :*** For answering a question, an **ANSWER SHEET (OMR SHEET)** is provided separately. Please fill your **Name, Roll Number, Seat ID, Date of Birth** and the **PAPER CODE** properly in the space provided in the **ANSWER SHEET.** IT IS YOUR OWN RESPONSIBILITY TO FILL THE OMR SHEET CORRECTLY.
* A blank space has been provided on each page for rough work. You will not be provided with any supplement or rough sheet.
* The use of log tables, calculator and any other electronic device is strictly prohibited.
* Violating the examination room discipline will immediately lead to the cancellation of your paper and no excuses will be entertained.
* No one will be permitted to leave the examination hall before the end of the test.
* **Please submit both the question paper and the answer sheet to the invigilator before leaving the examination hall.**
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# FILL THE FOLLOWING INFORMATION PROPERLY BEFORE YOU PROCEED

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| --- | --- | --- | --- |
| **NAME** |  | **SEAT ID** |  |
| **ROLL NUMBER** |  | **DATE OF BIRTH** |  |
| **INVIGILATOR’S SIGNATURE** |  | **ROOM NO.** |  |

**SUGGESTIONS:**

* *Before starting the paper*, *spend 2-3 minutes to check whether all the pages are in order and report any issue to the invigilator immediately.*
* Try to attempt the Sections in their respective order.
* Do not get stuck on a particular question for more than 1-1.5 minutes. Move on to a new question as there are 30 questions to solve.

**SECTION – I [PHYSICS]**

1. One micron is equal to:

**(A)**

### 102 cm

**(B)**

### 104 cm

**(C)**

### 106 cm

**(D)**

### 108 cm

1. Which is the correct unit for measuring nuclear radii?
	1. Micron **(B)** Millimeter **(C)** Angstrom **(D)** Fermi
2. A boy walks to his school at a distance of 6 km with constant velocity of 2.5kmh1and comes back with a constant speed of 4 km h1. His average velocity for round trip, expressed in kmh1, is:
	1. 1/2 **(B)** 3 **(C)** 24/13 **(D)** zero
3. A ball is thrown upward. After it has left the hand, its acceleration:

|  |  |  |
| --- | --- | --- |
| **(A)** remain constant | **(B)** | increases |
| **(C)** decreases | **(D)** | is zero |

1. The angle between *i*ˆ  ˆ*j* and ˆ*j*  *k*ˆ is:
	1. 0° **(B)** 90° **(C)** 45° **(D)** 60°

**SPACE FOR ROUGH WORK**

1. In the case of a projectile fired at an angle equally inclined to the horizontal and vertical with velocity *u*, the horizontal range is:

#### (A) *u*

2

*g*

**(B)** *u*

2*g*

2

**(C)** *u*

3*g*

2

**(D)** *u*

4*g*

2

1. A trolley of mass 20 kg carries 5 kg grain and moves on a horizontal, smooth and straight track at 20

m/s. if the grain starts leaking out of a hole at the bottom at the trolley at *t*  10 sec will be nearest to:

*t*  0 , at the rate of 0.2 kg/sec, the speed of

* 1. 20 m/s **(B)** 25 m/s **(C)** 15 m/s **(D)** 13.3 m/s
1. Smallest practical unit of energy is:
	1. Erg **(B)** Kilowatt hour **(C)** Electron volt **(D)** Joule
2. A lorry and a car moving with same kinetic energy are brought to rest by application of brakes, which provide equal retarding forces. Which of them will come to rest in a shorter distance?

|  |  |  |
| --- | --- | --- |
| **(A)** Lorry | **(B)** | Car |
| **(C)** Both will cover same distance | **(D)** | Insufficient data |

1. If a body is moved with constant power, force (*f*) on the body and velocity (*V*) are related as:

**(A)**

*f*  *V* **(B)**

*f*  1

*V*

**(C)**

*f*  *V* 2

**(D)**

*f*  1

*V* 2

**SPACE FOR ROUGH WORK**

**SECTION – II [CHEMISTRY]**

1. By heating 10g of CaCO3 , 5.6g CaO is formed. What is the weight of CO2 obtained in this reaction?
	1. 4.4 **(B)** 44 **(C)** 2.2 **(D)** 22
2. What volume of oxygen gas at NTP is necessary for complete combustion of 20 litre of propane measured at 0°C and 760 mm. pressure.
	1. 100litre **(B)** 20litre **(C)** 40litre **(D)** 50litre
3. The emission spectrum of He ion is the consequence of transition of electron from orbit

n2 to orbit n1 .

Given that 2n2 3n1 18 and 2n2 – 3n1  6, then what will be the total number of photons emitted when electron transits to orbit n1 ?

* 1. 10 **(B)** 15 **(C)** 20 **(D)** 21
1. The energy of a radiation of wavelength 8000 Å is E1 and energy of radiation of wavelength 16000 Å is

E2 . What is the relation between these two?

**(A)**

E1  6E2

**(B)**

E1  2E2

**(C)**

E1  E2

**(D)**

E1 1/2E2

1. The hybridization of atomic orbitals of nitrogen in NO, NO and NH are:

2 3 4

* 1. sp, sp3 and sp2 respectively **(B)** sp, sp2 and sp3 respectively

**(C)**

sp2 , sp and sp respectively **(D)**

sp2 , sp3 and sp respectively

**SPACE FOR ROUGH WORK**

1. Which of the following statements regarding ozone is not correct?
	1. The ozone molecule is angular in shape
	2. The ozone molecule is a resonance hybrid of the two structures
	3. The oxygen-oxygen bond length in ozone is identical with that of molecular oxygen
	4. Ozone is used as germicide and disinfectant for the purification of air
2. Which order among the following is not correct regarding their property as indicated
	1. NaF  NaCl  NaBr  NaI melting point
	2. NaCl  KCl  RbCl  CsCl  LiCl melting point

BeF2  MgF2 CaF2 SrF2

solubility in water

NH O

|| ||

* 1. (CH3)2 NH  CH3CH2NH2  CH3  C  NH2  CH3  C NH2 basic character
1. The IUPAC name of CH3CHO is:
	1. Acetaldehyde **(B)** Methylaldehyde

**(C)** Formyl chloride **(D)** Ethanal

1. The addition of carbonyl compound to HCN is an example of

|  |  |  |
| --- | --- | --- |
| **(A)** Nucleophilic substitution | **(B)** | Electrophilic addition |
| **(C)** Nucleophilic addition | **(D)** | Electrophilic substitution |

1. Nucleophilicity order is correctly represented by:

3 2

**(A)**

**(C)**

## CH  NH  HO–  F–

NH  F–  HO–  CH

3 2

2 3

**(B)**

**(D)**

## CH  NH  HO–  F– CH

**SPACE FOR ROUGH WORK**

NH  HO–

2

F–

3

**SECTION – III [BIOLOGY]**

1. Plants grow throughout life by which method?
	1. Cell dedifferentiation **(B)** Cell differentiation

**(C)** Cell division **(D)** None of the above

1. Cyanobacteria are classified under which of the following kingdom?
	1. Protista **(B)** Monera **(C)** Algae **(D)** Plantae
2. Algae are:
	1. chlorophyll bearing autotrophs **(B)** simple and thalloid

**(C)** Both **(A)** and **(B) (D)** heterotroph.

1. Stamen consists of:
	1. filament and anther **(B)** style and stigma

**(C)** filament and pistil **(D)** anther and pistil

1. Which organelle is responsible for the production of ATP (energy) in the cell?
	1. Golgi apparatus **(B)** Mitochondria

**(C)** Endoplasmic reticulum **(D)** Lysosomes

1. Which of the following is a complex carbohydrate that is found in plant cell walls?
	1. Glucose **(B)** Sucrose **(C)** Starch **(D)** Cellulose
2. The type of connective tissue that stores fat and provides insulation is:
	1. Adipose tissue **(B)** Cartilage **(C)** Blood **(D)** Bone
3. Which of the following phyla is characterized by animals with jointed appendages and an exoskeleton made of chitin?
	1. Mollusca **(B)** Arthropoda **(C)** Echinodermata **(D)** Nematoda
4. The building blocks of nucleic acids are:
	1. Amino acids **(B)** Monosaccharides

**(C)** Nucleotides **(D)** Fatty acids

1. Animals belonging to the class Aves are characterized by:

|  |  |  |
| --- | --- | --- |
| **(A)** Laying eggs in water | **(B)** | Having a bony exoskeleton |
| **(C)** Being cold-blooded | **(D)** | Having feathers and beaks |

**SPACE FOR ROUGH WORK**

**SPACE FOR ROUGH WORK**

**🙛 🙛 🙛 End of Vidyamandir Intellect Quest | 1 Year [NEET 2025] 🙙 🙙 🙙**