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(Memory Based)

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Dear students

We have compiled this question paper on the basis of questions shared on social media and various third party platforms, after the exam.

This is a memory-based incomplete question paper.

Memory based question paper means that the questions were shared based on memory recall.

The incompleteness of the question paper means that we have published as many questions as we could gather. However the paper may not have the exact number of questions as was in the actual test, as students could not remember all questions.

Also the exact wording of the questions, numerical, and data is completely dependent on the accuracy of memory recall.

We hope this helps you in clearing your exam with an excellent score.

It is an honor for us to be a part of your journey towards success.

Physics

Q.1. If A vector and B vector are non zero vectors which obey the relation |A+B|=|A-B|, then the angle between them is

1. **0°**
2. **60°**
3. **90 °**
4. **120 °**

Ans- 3. 90°

Q.2. A body is moving in a circular path with acceleration α. If its velocity gets doubled then find the ratio of acceleration after and before the change of velocity?

1. **1:4**
2. **1:2**
3. **2:1**
4. **4:1**

Ans.- 4. 4:1

Q3. If y A sin(kx) and dimensions of y and x are length, then dimensions of A and k must be :

1. **[L] and [1/L] respectively**
2. **[L] and [T] respectively**
3. **(L) and dimension less respectively**
4. **Both are dimension less**

Ans.- 1. [L] and [1/L] respectively.

Q4. What is the dimensional formula for the universal gravitational constant ?

1. **[M−1L3T−2]**
2. **[M-1L3T-1]**

3. [M-1L2T-2]
4. [M0L0T0]

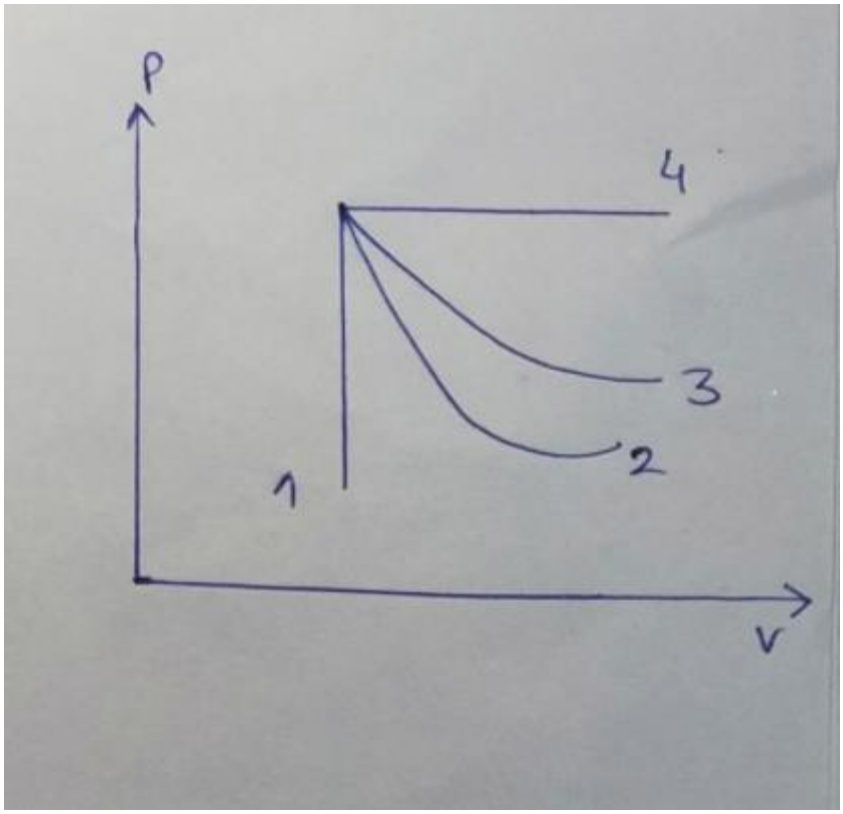
Ans.- 1. [M−1L3T−2]

Q5. If P, Q, R are physical quantities having different dimensions, which of the following combinations can never be a meaningful quantity?

1. (P-Q)/R
2. PQ-R
3. PQ/R
4. (PR-Q)

Ans.- 1. (P-Q)/R

Q6. An ideal gas undergoes four different processes from the same initial state (figure). Four processes are adiabatic, isothermal, isobaric and isochoric. Out of 1. 2. 3 and 4 which one is adiabatic?



1. 4

2. 3
3. 2
4. 1

Ans.- 3. 2

Q7. A charge moves in a circle perpendicular to a magnetic field. Upon which of the following, the time period of revolution, does not depend ?

1. Magnetic field
2. Charge
3. Mass of the particle
4. Velocity of the particle

Ans.- 4. Velocity of the particle

Q8. A Light Waves enters from 'I' medium into 'II' medium . Its velocity in second medium is double that in 'I' medium. For the phenomenon of total internal reflection to take place the angle of incident must be greater than a certain value. The value is –

1. 20°
2. 30°
3. 45°
4. 60°

Ans- 2. 30°

Q9. Three resistors of RΩ, 3Ω and 5 Ω are connected in parallel across a battery of 10V and of negligible internal resistance. The potential difference across the 3 Ω resistor is-

1. 2V
2. 3V
3. 9V
4. 10V

Ans.- 4. 10V

Q10. In the Boolean algebra, of the following which is not equal to A is-

1. **A.A**
2. **A+A**
3. **A'.A**
4. **(A'+A')'**

Ans.- 3. A'.A

Q 11. P-type semiconductor is –

1. **Positive Charge**
2. **Negative Energy**
3. **Neutral**
4. **None of These**

Ans.- 3. Neutral

12. Two charged spheres separated at a distance d exert a force F on each other. If they are immersed in a liquid of dielectric constant 2, then the force is –

1. **F/2**
2. **F**
3. **2F**
4. **4F**

Ans.- 1. F/2

Biology

Q1. Lycopodium belongs to

1. angiosperms
2. gymnosperms
3. Pteridophyte
4. Bryophytes

Ans : 3. Pteridophyte

Q2.The barr body present in female body of Patau syndrome

1. 1
2. 2
3. 3
4. 0

Ans : 1. 1

Q3.Sodium reabsorption done not occur in

1. PCT
2. Descending limb of loop of henle
3. Ascending link of loop of Henle
4. DCT

Ans : 2. Descending limb of loop of Henle

Q4. Which unit of histone proteins is involved in the nucleosome ?

1. H1A
2. H2A
3. H2B
4. H4

Ans : 1. H1A

Q 5. Polymer of fructose is

1. **Glucose**
2. **Glycogen**
3. **Insulin**
4. **Cellulose**

Ans : 3. Insulin

Q6.Radial Symmetry is present in

1. **Chordata**
2. **Ctenophora**
3. **Annelida**
4. **Mollusca**

Ans : 2. Ctenophora

Q7.Quiescent stage is known as

1. **Interphase**
2. **G0**
3. **G1**
4. **M Phase**

Ans : 2. G0

Q8.Major inspiratory muscle

1. **Diaphragm**
2. **external intercostal muscles**
3. **internal intercostal muscle**
4. **Ribs**

Ans : 1. Diaphragm

Q9.Citric acid cycle occurs in which part of mitochondria?

1. only inner membrane
2. mitochondrial matrix
3. outer membrane
4. intermembrane space and inner membrane

Ans : 2. mitochondrial matrix

Q10.Number of hydrogen bonds between adenine and thymine-

1. 1
2. 2
3. 3
4. None

Ans : 2. 2

Q11.Agent orange is-

1. weedicide
2. insecticide
3. herbicides
4. None

Ans : 1. weedicide

Q12.PS II is active at-

1. 700 nm
2. 760 nm
3. 680 nm
4. 600 nm

Ans : 3. 680 nm

Q13.In which disease Oxygen supply do not meet its requirement to heart –

1. angina

2. emphysema
3. gout
4. None

Ans : 1. angina

Q14.Down syndrome is an example of-

1. polyploidy
2. aneuploidy
3. both
4. None

Ans : 2. aneuploidy

Q15.Which have maximum energy?

Producer->bat->deer->Tiger

1. bat
2. deer
3. tiger
4. producer

Ans : 4. producer

Q16.Which is the source of biogas?

1. nitro bacillus
2. nitro coccus
3. methano bacterium
4. pseudomonas

Ans : 3. Methano bacterium

Q17.Which enzyme catalyzes the formation of covalent bonds between the nucleotides of DNA?

1. DNA ligase

2. DNA gyrase
3. DNA polymerase
4. none of these

Ans : 1. DNA ligase

Q18.Site of lipid metabolism.

1. Golgi
2. SER
3. RER
4. Mitochondria Body

Ans : 2. SER

Q19.Only fat soluble vitamin which is synthesised in human body

1. A
2. D
3. E
4. K

Ans : 2. D

Q20.If husband and wife have lism AB then the type of progeny blood group can be →

1. A and B
2. O and B
3. O and A
4. All O

Ans : 1. A and B

Q21.Primary host for wuchereria bancrofti-

1. mosquito

2. human
3. house flies
4. none

Ans : 2. human

Q22.Example of shell fish-

1. sardines
2. mackerel
3. hilsa
4. shrimp

Ans : 4. shrimp

Chemistry

Q1.If the dissociation constant for A_2 B_2 is of then find the value of van't off factors

1. **2α-1**
2. **4α-1**
3. **4α+1**
4. **4α**

Ans : 3. 4α+1

Q2.Which of these have high electrical conductance ?

1. **1M CH3COOH**
2. **1M HCl**
3. **1M H2CO3**
4. **1M H3PO4**

Ans : 2. 1M HCL

Q3.What is the molarity of the trinities when 0.5M and 750ml HCl mixed with. 2M 250ml HCl

1. **875**
2. **10**
3. **1**
4. **2**

Ans : 1. 875

Q4.A 0.66 kg ball having 100 ms-' velocity. Find the wavelength obtained (h=6.6×10-34 J.S.).

1. **1x 10^{-32} m**
2. **1x 10^{-33} m**
3. **1x 10^{-35} m**
4. **None**

Ans : 3. 1x 10^{-35} m

Q5.The trend of atomic roadies.

1. **P<Cl<Ca<Mg**
2. **Cl<P<Ca<Mg**
3. **Ca<Mg<P<Cl**

Q6.Cellulose acetate is an example of

1. **synthetic polymer**
2. **semisynthetic polymer**
3. **natural polymer**
4. **None**

Ans : 2. semisynthetic polymer

Q7.Which reaction does not produce alkyl halide ?

1. **C2H5OH + NaCl**
2. **CH3 CH_2 CH_2 CH-+ HCl**
3. **C2H5Cl + NaOH**
4. **CH3COOH + Br CCl4**

Ans : 1. C2H5OH + NaCl

Q8.Which is not isostructural ?

1. **PCl_{4+}, $SiCl_4$**
2. **PF5 , BrF5**
3. **AlF_{63-} , SF_6**
4. **NO_{3-} , CO_{32-}**

Ans : 2. PF5 , BrF5

Q9.The half life of a sample of particle in 30 mins. Before the activity 8g of sample at present at 10a.m. The know what amount of sample will be present at 11:30 am

1. 2g
2. 1g
3. 3g
4. 4g

Ans : 2. 1g

Q10.Which is formed when black coloured MnO_2 is used with KOH in presence of air

1. KMnO4 pink.
2. MnO
3. K2MnO4 dark-green
4. Na

Ans : 3. K2MnO4 dark-green

Q11.Number of lone pare in XeOF4

1. 1
2. 0
3. 2
4. 3

Ans : 1. 1