



ASIA ENGLISH SCHOOL		1 st Term Exam September 2009-10
Secondary /Higher Secondary Section		Date : 12-09-09
Asia Campus, Drive-in Road, Ahmedabad-380054		Time : 2 hrs.
Std : IX	Sub : Science	Total Marks : 50

Roll No. _____

Instructions : There are 27 questions in this paper. All the questions are compulsory

SECTION-A

Select the proper alternative from those given below each question. (1 mark each)

- (1) Which unit system is internationally accepted ?
[a] FPS system [b] CGS system
[c] MKS system [d] SI system
- (2) A scooterist moves along a straight path for 20 minutes at 30 km/hr. How much distance did he travel ?
[a] 1.5 km [b] 6 km [c] 10 km [d] 90 km
- (3) Which is the type of colloid present in cheese, butter and jelly ?
[a] Emulsion [b] Foam [c] Gel [d] Aerosol
- (4) Who discovered neutron ?
[a] Rutherford [b] Chadwick [c] Villard [d] none of these
- (5) Which are 'd' block elements ?
[a] Blocks 1 and 2 [b] Blocks 3 to 12
[c] Blocks 13 to 18 [d] block placed below the table
- (6) 'Navjot' is the improved variety of which crop ?
[a] Rice [b] wheat [c] maize [d] mung
- (7) Squamous epithelium are found in
[a] inner lining of trachea [b] lining of salivary duct
[c] thyroid gland [d] inner and outer surface of blood vessels.

SECTION – B

Answer in very short. (1 mark each)

- (8) What does magnitude of time rate of change in momentum give ?
- (9) How many meters are equal to 1 nanometer ?
- (10) Why does liquid flow ?
- (11) Mention the type of plastid.
- (12) In which cells does meiosis occur ?
- (13) Give the names of component units of Xylem tissue.
- (14) At which temperature and for how many days can blood be preserved ?

SECTION – C

Answer the following.

- (15) A moving body travels distance 'd' at a uniform speed V_1 and travels distance 'd' at uniform speed V_2 . Prove that average speed is $\frac{2V_1V_2}{V_1 + V_2}$
- (16) State Archimedes' principle and state its units.
- (17) In a hydrocarbon compound carbon is 85.7% and hydrogen is 14.3%. Calculate the empirical formula and also its molecular formula. (molecular wt. of hydrocarbon is 28.)
- (18) How were discrepancies of Mendeleev's table removed ?

OR

Give suggestions to keep air pollution in control ?

(P.T.O.)

- (19) Write a short note on : Measures to meet energy crises at the international level.
(4 points)
- (20) Write a short note on : Prophase in mitosis.

SECTION – D

Answer the following. (3 marks each)

- (21) Derive equations for uniformly accelerated motion of an object.

OR

State Law of conservation of momentum and show that momentum is conserved when interaction between marbles A and B take place.

- (22) Describe in short Rutherford's experiment and give its consequences.
(23) Write short note on : (1) Mito chondria (2) Chloroplast
(24) Describe the structure of neuron

SECTION – E

Answer the following in detail.

- (25) Mention the structure and functions of (1) collenchyma (2) Sclerenchyma
(26) Explain the changes in (1) atomic volume and (2) ionization energy seen in group and periods of a periodic table.
(27) (1) Define acceleration
(2) A scooterist, moving on a straight highway at 5.4 k.m/h, sights an obstacle at a distance of 50 m, and applies brakes to produce 2.5 m/s^2 retardation. Will he be able to avoid accident.
(3) What type of motion a body perform if speed time graph is parallel to the time axis

OR

- (1) Explain Newton's first law giving example.
(2) 6 N force can produce 2 m/s^2 acceleration in a body of mass m_1 and 3 m/s^2 acceleration in a body of mass m_2 . Calculate the acceleration produced by the same force when both the bodies are tied together ?
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