Periodic test 1 Class 10

Subject --- Science M.M 40

Duration 90 Min.

SECTION A

Q.NO.1 TO 10 CARRY ONE MARK EACH.{1*10=10}

Q.1 Name the term for transport of water and minerals from root to other parts of plants

Q.2 Which pancreatic enzyme is effective in digesting protein?

Q.3 Name the tissue which transports soluble products of photosynthesis in a plant.

Q.4 State laws of reflection.

Q.5 Write two difference between real and virtual image.

Q.6 Name the type of mirror used in solar furnace. How is high temperature achieved by this device?

Q.7 Mention the type of chemical reaction that takes place when

(i) A magnesium ribbon is burnt in air.
(ii) Limestone is heated.

Q.8 Why does the colour of copper sulphate solution change when an iron nail is dipped in it? Write two observations

Q.9 Write chemical equation reactions taking place when carried out with the help of
(a) Quick lime react with water
(b) Magnesium reacts with dil HCl

Q.10 Identify the device used as a spherical mirror or lens in the following cases, when the image formed is virtual and erect in each case.
(a) Object is placed between device and its focus, image formed is enlarged and behind it.
(b) Object is placed between the focus and device, image formed is enlarged and on the same side as that of the object.

SECTION B

FROM Q.NO.11 TO 16 EACH CARRY TWO MARKS.{6*2=12}

Q.11 Identify the type of mirror with suitable reason

A] Mirror used by dentist

B] As a rear view mirror in vehicles

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Q.NO..12

a) Draw a diagram to show open stomatal pore and label on it:
(i) guard cells
(ii) chloroplast
(b) State two functions of stomata.

Q.NO.13

Name the products formed on strongly heating ferrous sulphate crystals. What type of chemical reaction occurs in this change?

Q.NO.14 Draw ray diagrams for concave mirror if
(A) object placed on F

{ B} object placed between C and F

Q.NO.15

Mention the raw materials required for photosynthesis.

Q.NO.16. Define and show on a diagram, the following terms relating to a concave mirror:
(i) Aperture
(ii) Radius of curvature

SECTION C

SCIENTIFIC LITERACY BASED QUESTIONS.{4*2=8}

UNIT… RANCIDITY

Like all food components, fats undergo deteriorative changes, which result in undesirable flavors and odors with time. These changes in fats are given the term “rancidity”. Rancidity can be of two types, hydrolytic and oxidative. Hydrolytic rancidity is caused by a breakdown of the fat into glycerol and fatty acids. This is

the type of rancidity that gives “rancid” butter its bad flavor. Oxidative rancidity results from oxidation of unsaturated and polyunsaturated fatty acids. The products of these reactions produce undesirable flavors and odors. These flavors sometimes develop in foods such as peanut better, potato chips, and crackers. Manufacturers are permitted to add antioxidants to some foods to slow down this oxidative deterioration. The antioxidants normally used are butylated hydroxyanisole (BHA), butylated hydroxytoluene (BHT), tertiary butyl hydroquinone (TBHQ), and propyl gallate (propyl 3,4,5-trihydroxybenzoate). You may see these terms on the labels of some foods. The antioxidant slowly diffuses into the packaged food product during storage, thus protecting the snack. Another means of slowing down oxidation is to package the food so that it is protected from light, moisture, and oxygen, t

hree things that accelerate oxidation.

Nida wraps a canning jar with aluminium foil so that no light can enter the container. Fresh potato chips were placed in the foil-wrapped jar and in a similar clear jar without foil around it. After 2 days, she taste the potato chips from both jars and found difference in taste.

Q.NO.17{a} What do you think is the purpose behind performing this activity?

Now she keeps the two jars on a window sill where they will be exposed to sunlight and turn each jar one-quarter turn each day (every 24 hours). She taste potato chips from each jar at intervals of 1-2 days for 1-2 weeks

Q.NO.17 {b}. Why did wrapping the jar in aluminum foil affect the flavor of the stored potato chips?

Q.NO.17{c} Which one of the following factors does not affect oxidative rancidity?

A. enzymes,

B. oxygen

C.temperature

D.. ultra-violet light.

Q.NO.17 {d} All the methods mentioned below can be used to prevent the food from getting rancid except:

i. Storing the food in the air-tight containers
ii. ii. Storing the food in refrigerator
iii. iii. Keeping the food in clean and covered containers
iv. iv. Always touching the food with clean hands
v. a. (i) and (ii)
vi. b. (i) and (iii)
vii. c. (i), (iii) and (iv)
viii. d. (iii) and (iv)

UNIT-2 "PHYSICAL EXERCISE"

1.4 billion Risk disease from lack of exercise: WHO The study tracked activity levels of 1.9 million people in 168 countries across the world during 2016. More than 1.4 billion adults are putting themselves at heightened risk of deadly diseases by not getting enough exercise, doctors are warning, with global activity levels virtually unchanged in nearly two decades. With richer nations enjoying an increasingly comfortable, sedentary lifestyle, a study by the World Health Organisation (WHO) said a third of women and a quarter of men worldwide are in the firing line for killer conditions such as heart disease, diabetes and cancer unless they up their physical activity. "Insufficient physical activity is a leading risk factor for non-communicable diseases, and has a negative effect on mental health and quality of life," said the study of world exercise levels published on

Wednesday by The Lancet Global Health Journal. The WHO recommends each adult do at least 150 minutes “moderate-intensity” exercise — such as brisk walking, swimming or gentle cycling — each week, or 75 minutes “vigorous-intensity” activity — such as running or team sports. The study tracked activity levels of 1.9 million people in 168 countries across the world during 2016. Researchers found there had been no improvement in physical activity levels since 2001, despite numerous public health initiatives extolling the benefits of exercise. More than a quarter of the world’s adults (1.4 billion people) were insufficiently active, according to the data. “We definitely haven’t done enough” to encourage people to exercise, the WHO’s Regina Guthold, lead study author, told AFP. “We have seen basically no progress

Question18 {a}.Exercise is often described as training and should include:

A. Exertion of the lungs.

B. Exertion of the heart

. C. Exertion of the muscles

D. All of the above.

Question18 {b]. Muscular endurance is defined as:

a. the ability of a muscle or muscle group to generate force repeatedly
b. Peak ability of a muscle to generate force.
c. An Ability you are born with and cannot train.
d. the ability of the heart to provide oxygen rich blood to the muscles

Q.NO.18 {c }. Which is NOT a component of health-related physical fitness?

A. Cardio respiratory fitness

B. Body composition

C. Balance

D. Flexibility

Q.NO.18 {d} What are the benefits of exercise?

SECTION D

MULTIPLE CHOICE QUESTIONS BASED ON PRACTICAL SKILL

FROM Q.NO.19 TO Q.NO.28 CARRY ONE MARK EACH.(1*10=10}

Q19) While performing an activity in the lab, Meera exhaled air into a colourless solution taken in a test tube. Suddenly its colour turned to milky white. Which among the following is the colourless solution?

[A] Lime water
{B] Aqueous solution of NaOH
{C} Aqueous solution of NaCl
[D] Soda water

Q...20] Magnification produced by a rear view mirror fitted in vehicles

(a) is less than one
(b) is more than one
(c) is equal to one
(d) can be more than or less than one depending upon the position of the object in front of it.

Q. 21) The following picture shows the heating of lead nitrate. On heating two gases are evolved, one is colourless and the other is brown in colour. Which gases are they?

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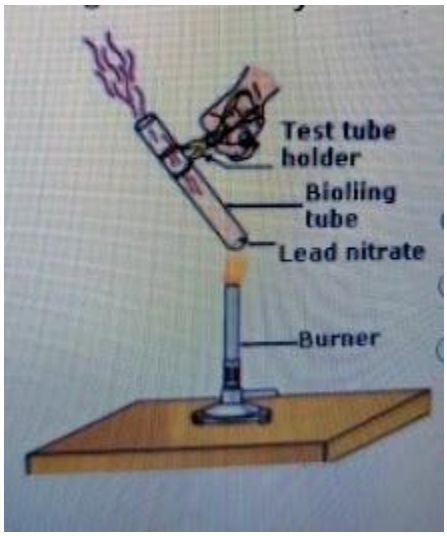

{A] Oxygen and nitrogen dioxide
{B } Hydrogen and lead oxide
{C }Hydrogen and oxygen
{D} Oxygen and nitrous oxide

Q. 22}

In the experiment demonstrating respiration in germinating seeds, why is KOH used? *

[A } Absorb carbon dioxide produced by the seeds.
{B] Absorb oxygen present in the flask.
{C] Absorb water vapour released by the seeds.
{D] Liberate oxygen to be used by the seeds.

Q.23) Assertion: All the arteries carry oxygenated blood from heart to various organs. Reason: Pulmonary artery carries deoxygenated blood from heart to the lungs.*

{A] Both A and R are true and R is the correct explanation for A
{B] Both A and R are true but the reason is not the correct explanation of the A
{C} A is true but R is false
{D} A is false but R is true

Q. 24 What is the general equation for respiration?

{A] $C_6H_{12}O_6 + 6CO_2 \rightarrow 6CO_2 + 6H_2O$ + Energy
{B} $C_6H_{12}O_6 + 12O_2 \rightarrow 6CO_2 + 6H_2O$ + Energy
{C] $C_6H_{12}O_6 + 12O_2 \rightarrow 6CO_2 + 6H_2O$ + Energy
{D} $C_6H_{12}O_6 + 6O_2 \rightarrow 12CO_2 + 6H_2O$

Q..25) The bending of a beam of light when it passes obliquely from one medium to another is known as _____.*

{A] Reflection
{B] Dispersion
{C] Deviation
{D] Refraction

Q.26) The radius of curvature of a mirror is 20cm the focal length is

[A]. 20cm
[B}] 10cm
{C} 40cm
{D}. 5cm

Q.27} A parallel beam of light falls on a mirror. All the rays of the beam after reflection actually intersect at a point. The mirror is a :*

{A} Plane mirror.
{B] Convex mirror.
{C} Concave mirror.
{D] None of the above.

Q..28) Focal length of plane mirror is

{A]. At infinity
{B}. Zero
{C}. Negative
{D} None of these