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SUMMATIVE ASSESSMENT II-2014
SUBJECT- SCIENCE
CLASS- VIII
Marking scheme

1. Rod cells-sensitive to light (1/2+1/2=1)
Cone cells-sensitive to colour.
2. Force acting on unit area is called pressure. (1)
3. Heating effect of current (1)
4. Any two differences
- Menarche-a stage when ovary starts releasing ovum. (1+1=2)
-Starts at the age of 10-12 years.
- Menopause-a Stage when ovary stops ovulation.
- at the age of 45-50 years
5. Diagram with labelling. (1+1)
6. Pole star lies close to the axis of rotation of the Earth that is why pole star appears stationary. Earth moves from west to east that is why other stars appear to move from east to west. (1+1=2)
7. Tall buildings are protected by installing lightning conductor in the walls of the building during its construction. One end of the rod is kept out in the air and the other is buried deep in the ground.
The rod provides easy route for the transfer of electric charge to the ground. (1+1=2)
8. Flow chart- (1)
The sex is determined by sex chromosome. Sperm is of two types-sperm with X chromosome and the sperm with Y chromosome. Whereas all the ovum have X chromosome. If ovum is fertilised by the sperm with X chromosome the sex of the child will be female and if ovum is fertilised by the sperm with Y chromosome the sex of the child will be male. (2)
9. (a) Powder reduces friction so striker can move easily on the carom board. (1X3=3)

(b) When we rub our hands heat is produced due to friction this heat makes our hand warm.

(c) Mud increases friction which helps to get a better grip.

10. loudness-amplitude (1/2)

Shrillness-frequency (1/2)

Time period = time taken to complete one oscillation. (1)

20 oscillations in 4 sec

1 oscillation = $4/20$ sec = $1/5 = 0.2$ sec

Frequency = no. of oscillations completed in 1 sec (1)

In 4 sec = 20 oscillations

1 sec = $20/4 = 5$ hertz

11. Any man-made object which revolves around other celestial objects are called artificial satellite. (1)

Uses-for forecasting weather, transmitting television and radio signals, telecommunication and remote sensing. (any two uses $1+1=2$)

12. Auto mobile should switch over to unleaded petrol. ($1 \times 3 = 3$)

Use of CNG instead of petrol and LPG.

Switch over to alternative fuels instead of fossil fuels like solar, wind and hydro power energy.

13.(a) Charged balloons have similar charges so they repel each other. (1)

Charge balloon attract uncharged balloon because charged objects attract uncharged objects. (1)

(b) Electroscope (1)

14. Friction is friend because it helps us to write with pen or pencil, on blackboard with chalk. if there is no friction, an object started moving could never stop, vehicles cannot be started or stopped.

Friction is foe because it wears off the materials like screws, wall bearings and soles of shoes, its steps off foot worn out due to friction.

During friction heat is generated which causes wastage of energy the tyres of cars, busses and trucks worn out due to friction.

In this way we can say that friction is both friend and foe. $(1\frac{1}{2}+1\frac{1}{2}=3)$

15.)a. Unpleasant sound is noise. Pleasant sound is music. Yes. $(1+1+1/2)$

b. Decibel. $(\frac{1}{2})$

16.) I.) (a) 5 N towards left (1×3) (b) 15 N
towards right

(c) 0

II Effects of force $(\text{any two effects } 1 \times 2 = 2)$

Change in shape- Eg squeezing toothpaste tube.

Change in direction- Eg-kicking a football

17.(a) Returning back of light in the same medium with change in its direction is called reflection of light. (1)

Laws of reflection- $(1+1)$

i. Incident ray, reflected ray and the normal drawn at the point of incidence all lie in the same plane.

ii. Angle of incidence is equal to angle of reflection.

(b) Characteristics of image form by a plane mirror- $(\frac{1}{2} \times 4 = 2)$

-Virtual and erect.

-Laterally inverted

-Same size

-Image is formed behind the mirror at the same distance as the object is in front of the mirror.

18. Diagram (2)

Correct Labelling for cathode and anode to the terminal of battery. $(1/2+1/2)$

(a) Electrolyte-water $(\frac{1}{2}+\frac{1}{2}=1)$

Electrodes-carbon rods

(b) Hydrogen is deposited at cathode. $(\frac{1}{2}+\frac{1}{2}=1)$

Oxygen is deposited at anode.

SECTION B

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| 19.(d)All of the above. | (1) |
| 20.(d)Thyroxin | (1) |
| 21(c) Static, sliding, rolling | (1) |
| 22 (d) Solid liquid and gases | (1) |
| 23(b) 45° | (1) |
| 24.(d) 8 m | (1) |
| 25.(c)Uterus | (1) |
| 26.(c)Constellation | (1) |
| 27.(c)Air pollution | (1) |
| 28.(d) Hen and human | (1) |