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VARANASI REGION
SUMMATIVE ASSESMENT-II (2014-15)
Marking Scheme

CLASS – X

MAX. MARKS – 90

SUBJECT – SCIENCE (NVEQF)

General instruction:

1. The marking scheme provides general guidelines to reduce subjectivity in the marking .it carries only suggested value points for the answers. These are only guidelines and don't constitutes the complete answer. The candidates can have their own expression and if the expression is correct, the marks may be awarded accordingly.
2. Evaluation is to be done as per instructions provided in the marking scheme. It should not be done according to one's own interpretation or any other consideration. Marking scheme should be strictly adhered to and religiously followed.
3. If a question has parts, marks are awarded in the right hand side for each part. Marks awarded for different parts of the question should then be totalled up and written in the left hand margin.
4. If a question does not have any parts, marks are awarded in the left hand side margin.
5. wherever only two /three of a given number of examples /factors/points are expected only the first two/three or expected number should be read .The rest be treated as irrelevant and not be examined .
6. A full scale of marks 0 to 90 has to be used .Do not hesitates to award full marks if the answer deserves it.
7. In case where no answers are given or answers are found wrong in this marking scheme, correct answers may be found and used for valuation purpose.

Q. No.	Value Points	Marks distribution	Total Marks
1	Properties of elements are periodic function of their atomic number.	1	1
2	Ratio of velocity of light in vaccum and velocity of light in the medium.	1	1
3	a) Plant b) Tiger	$\frac{1}{2} + \frac{1}{2}$	1
4	for non -seeded plants, easily grow & increase their number. (any two)	1+1	2

5	Throwing of garbage, bathing, immersion of ashes and dead bodies	1 1	2
6	a) Organs which have same structural design and development origin but may have different functions eg forelimbs of frog/ lizard. b) Organs which have different basic structural design and developmental origin but have similar functions. Eg. wings of insects/ birds.	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	2
7	Correct structures	1+1+1	3
8	Identification of parts, changes	$\frac{1}{2} \times 4$ $\frac{1}{2} \times 2$	3
9	. $u = -15 \text{ cm}$, $f = +30 \text{ cm}$, $\frac{1}{u} + \frac{1}{v} = \frac{1}{f}$ $\frac{1}{v} = \frac{1}{30} - (-\frac{1}{15})$ $= \frac{1}{30} + \frac{1}{15}$ $= \frac{1}{10}$. hence $v = +10 \text{ cm}$ The image is formed behind the mirror and is virtual.	1 1 1	3
10	He ; Non metal Be ; Metal P ; Non metal	1 1 1	3
11	a-Pink, white b-PP and pp c- 3Pink: 1White	1 $\frac{1}{2} \times 2$ $\frac{1}{2} \times 2$	3

12	<p>The phenomenon of scattering of light by colloidal particles.</p> <p>a-Molecules of air have smaller size than wavelength of visible light so they scatter shorter wavelength of light that is blue.</p> <p>b-The red colour wavelength is not much scattered by air molecules and hence seen in same colour at a distance.</p>	<p>1</p> <p>1</p> <p>1</p>	3
13	<p>Advantages: Better cleansing action, can work even with hard water.</p> <p>Disdvantage:detergents are non-biodegradable.</p>	<p>1 + 1</p> <p>1</p>	3
14	<p>Barrier method-e.g Condoms</p> <p>Chemical method-e.gOC pills</p> <p>Surgical method-e.g vasectomy & tubectomy</p>	<p>1</p> <p>1</p> <p>1</p>	3
15	<p>The reciprocal of focal length of a lens is called its Power .</p> <p>Dioptre</p> <p>$P=1/f_{(\text{in m})} = 1/-.020 = -5D$</p>	<p>1</p> <p>$\frac{1}{2}$</p> <p>$1\frac{1}{2}$</p>	3
16	<p>a-A</p> <p>b-C</p> <p>c-B with Correct reason</p>	<p>1</p> <p>1</p> <p>1</p>	3
17	<p>No</p> <p>Correct explanation of sex determination in humans.</p>	<p>1</p> <p>2</p>	3
18	<p>It is produced by dispersion of sunlight by tiny water droplets, present in atmosphere.</p> <p>Correct diagram.</p>	<p>1</p> <p>2</p>	3
19	<p>a.Due to tetravalency ,catenation,</p> <p>b. its electronic configuration is $K = 2, L = 4$</p> <p>c.Triple bond are reactive sites which easily give addition products (more hydrogen can be added)</p> <p>i. propene ii.chloroethane</p>	<p>1</p> <p>1</p> <p>1</p> <p>1 + 1</p>	5

20	Correct diagram Correct functions	3 1 + 1	5
21	i-Convex lens ii- Converging lens iii-The point on the principal axis where all the light rays meet after refraction. iv- Image can be obtained on screen, inverted v- When the object is at $2F_1$	1 1 1 1 1	5
22	a- Any three useful roles b-For ecological balance in nature. c-Social Values like Ecofriendly nature / concern about environment.	3 1 1	5
23	Correct definition Any two examples Fossils helps -To identify any evolutionary relationship. -To identify the role of geographical succession on evolution. Experiment conducted by Stanley L. Miller.	1 $\frac{1}{2} \times 2$ 1 + 1 1	5
24	Correct definition This defect arises either because, i-The focal length of the eye is too long, or ii-The eyeball has become too small Fig 11.3 (b) and (c) pg 190 NCERT	1 1 1 1 + 1	5
25	a	1	1
26	c	1	1
27	a	1	1
28	a	1	1
29	d	1	1
30	b	1	1

31	c	1	1
32	b	1	1
33	c	1	1
34	Solubility of soap in solution decreases and it is easily precipitated out.	1 + 1	2
35	Cotyledons in a seed provides nutrients to the developing embryo during germination. Bean seed is dicotyledon whereas Maize seed is monocotyledon	1 1	2
36	-Angle of the prism -Nature of material of the prism - Angle of incidence. (any two)	1 + 1	2
