

Sample Question Paper
SCIENCE (Theory)
Class-X
Summative Assessment - II
2010-2011

Time : 3 hours

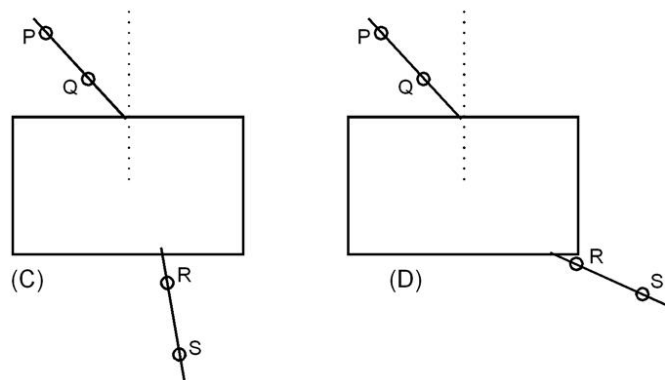
Maximum Marks : 80

General Instructions:

- i) The question paper comprises of two sections, A and B. You are to attempt both the sections.
- ii) All questions are compulsory.
- iii) There is no over all choice. However, internal choice has been provided in all the three question of five marks category. Only one option in such question is to be attempted.
- iv) All questions of section A and all questions of section B are to be attempted separately.
- v) Question numbers 1 to 4 in section A are one mark questions. There are to be answered in one word or one sentence.
- vi) Question numbers 5 to 13 are two mark questions, to be answered in about 30 words each.
- vii) Question numbers 14 to 22 are three mark questions, to be answered in about 50 words each.
- viii) Question numbers 23 to 25 are five mark questions, to be answered in about 70 words each.
- ix) Question numbers 26 to 41 in section B are multiple choice questions based on practical skills. Each question is a one mark question. You are to select one most appropriate response out of the four provided.

Section (A)

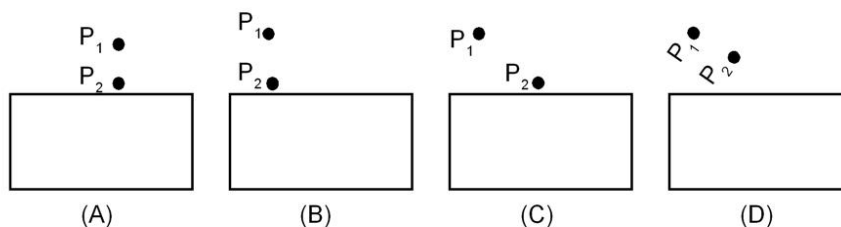
1. List the three phenomenon of light responsible for formation of rainbow in the sky.
2. Draw the electronic dot structure of ethane molecule (C_2H_6).
3. List any two common methods by which solid wastes of urban areas are disposed off.
4. Identify which one of the following would have a hazardous impact if they persist in the environment for a long time:
Newspaper, vegetable peels, pesticides, waste from cattle shed.
5. Why do we see stars twinkling whereas planets do not twinkle.
6. An object is placed perpendicular to the principal axis of a convex lens of focal length 10 cm. The distance of the object from the optical centre of the lens is 15 cm. Calculate the position of the image formed. Mention the nature of the image formed.



The student who made the correct observation is:

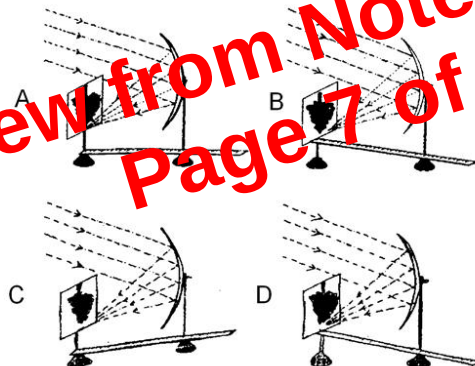
- a) A b) B c) C d) D

27. While tracing the path of a ray of light passing from air through a rectangular glass slab, the setup, in which the best result will be obtained is.



- a) A b) B c) C d) D

28. Four students A, B, C and D carried out measurement of focal length of a concave mirror, as shown in the diagrams given below:

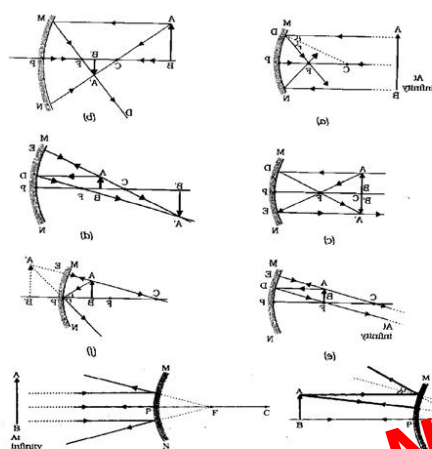


The correct focal length will be obtained by student

- a) A b) B c) C d) D

- 21 a) Traits developed during the lifetime of an individual are called acquired traits. Acquired character are changes in characters which occur in non reproductive tissues. 1
- b) No change occurs in genes of the germ cells.
- ii) Since no change in genes and hence not inherited and no change is next generation / no evolution. 1
- 22 i) One category is the creation of a mechanical barrier so that the sperm does not reach the egg, eg, condoms. 1
- ii) Another category of contraceptives bring about change of hormonal balance so that eggs are not released and fertilization does not occur, eg, oral pills. 1
- iii) Contraceptives such as intrauterine devices, eg, copper -T. 1
23. i) Concave mirror $\frac{1}{2}$
- ii) Convex mirror $\frac{1}{2}$

Ray diagrams



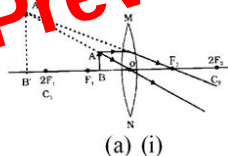
$1\frac{1}{2}$

Concave mirror can also form a magnified and real image

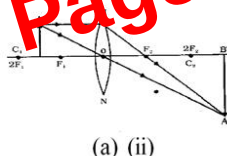
$\frac{1}{2}$

Position of object for it - between focus and centre of curvature of the mirror

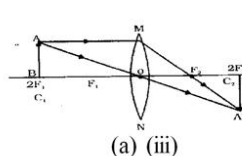
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(a) (i)

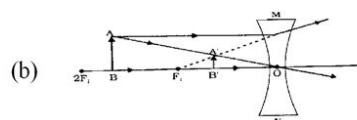


(a) (ii)



(a) (iii)

3



(b)

2