

**IASbaba's Daily Prelims Test [Day 41]**

**Topic- Science & Technology, Eco-Survey and Current Affairs**

**1. Consider the following regarding Reflecting surface of a spherical mirror**

1. Centre of curvature is part of the mirror
2. The centre of curvature of a concave mirror lies behind the mirror
3. The centre of curvature of a convex mirror lies in front of it.

**Select the WRONG statement/s**

1. 1, 2 and 3
2. 2 and 3
3. 1 and 2
4. None

Solution- 1

NCERT- CLASS 10<sup>th</sup>, chapter 10, page 162

**2. Consider the following**

1. Wavelength
2. Frequency
3. Size of the particle
4. Mass of the particle

**Colour of the scattered light depends on**

1. 1 and 2
2. 1, 2, 3 and 4
3. Only 3
4. 1, 2 and 4

Solution- 3

Tyndal effect- colour of the scattered light depends on the size of the scattering particle. Light scattering depends on wavelengths and frequency. NCERT- 10<sup>th</sup> chapter- 11

**3. The flow of charge in a conducting metallic wire depends on**

1. Chemical reaction
2. Gravity
3. Potential Difference
4. Current

**Select the correct code/s**

1. 1, 3 and 4
2. 2, 3 and 4
3. 1, 2 and 3
4. 1, 2, 3 and 4

Solution- 1

Gravity has no role to play. The electron moves only if there is a difference of electric pressure called potential difference. The chemical action within the cell generates the Potential difference across the terminal even when no current is drawn from it. Flow of charge or net charge is product of current and time.

NCERT- class 10<sup>th</sup> chapter 12

**4. Superconductors have been an exciting field of research for scientists due to its properties that can transform the outlook of application based technologies in years to come. Consider the following regarding this**

1. In all Superconductors, magnetism and superconductivity are mutually exclusive.
2. The major problem in application of superconducting materials in daily life is the high temperature process of heating that restricts its usage.
3. MAGLEV technology and Smart Grid finds application of superconductivity

**Select the correct code/s**

1. 1, 2 and 3
2. Only 1
3. 1 and 2
4. Only 3

Solution- 4

Generally in superconductors, magnetism and superconductivity are mutually exclusive but recent developments have proved otherwise. Read this article

<http://www.frontline.in/science-and-technology/unexpected-superconductor/article7003261.ece>

Second statement is wrong since it's the low temperature that is problematic. Third statement is right.

**5. With reference to Cloud computing and Grid computing consider the following statements**

1. Grid computing puts resources into one place while Cloud computing distributes it to many locations.
2. Cloud computing is typically for many small tasks while grid computing is suited for a few large tasks.
3. Large cloud computing instances utilize grid computing internally.

**Select the correct code/s**

1. 1, 2 and 3
2. 2 and 3
3. 1 and 3
4. Only 2

Solution- 2

First statement is reversed. Cloud computing put resources into one place while Grid computing distributes it to many locations.

**6. Internet Service Provider and Internet Protocol are commonly used when we think about internet. Consider the following regarding them**

1. One cannot have IP without ISP
2. ISP is the provider of the internet connection while IP is a unique network identifier
3. The ISP is always the same while some subscribers can have constantly changing IPs  
IPs are limited while ISPs are not
4. IPs can exist without the internet while ISPs cannot

**Select the correct code/s**

1. 1, 2, 3 and 4
2. 2, 3 and 4
3. 1, 2 and 4
4. 3 and 4

Solution- 2

Even without ISP, IP exists.

Rest statements are right

**7. "Fragile Five" includes**

1. Nigeria
2. Brazil
3. India
4. Turkey
5. Greece
6. Indonesia
7. South Africa

**Select the correct option**

1. 1, 2, 3, 4 and 7
2. 2, 3, 4, 6 and 7
3. 1, 3, 4, 5, 6 and 7
4. 2, 4, 5, 6 and 7

Solution- 2

Fragile Five- Brazil, India, South Africa, Turkey and Indonesia

**8. Macro-Economic Vulnerability Index adds up**

1. Balance of Payment
2. Fiscal Deficit
3. Rate of Inflation
4. Current Account Deficit
5. Depreciation

**Select the correct code/s**

1. 1, 2, 3, 4
2. 2, 3 and 4
3. 1, 2, 3, 4 and 5
4. 2, 3, 4 and 5

Solution- 2

Macroeconomic Vulnerability Index, as mentioned in the Mid-Year Economic Analysis 2014-2015, released by Ministry of Finance recently, adds together the rate of inflation, current account deficit and fiscal deficit of a country. The Index value can be compared across countries for different time periods to gauge their relative vulnerability. The ministry has done a comparison of the “fragile five” countries—Brazil, India, Indonesia, South Africa and Turkey

**9. Correctly match the following committees recently in news**

Name	Area
1. Shanta Kumar Committee	FCI
2. Meena Kumari Committee	Minimum Support Price
3. Ramesh Chand Committee	Deep Sea Fishing
4. Param Rajput	Status of Women

**Correct option**

- 1, 2 and 3
- 2 and 3
- 1 and 4
- 1, 3 and 4

Solution- 3

Meena Kumari Committee- Deep Sea Fishing

Ramesh Chand- MSP

**10. Recently World Hepatitis Day was celebrated around the globe. Consider the following statements regarding Hepatitis**

- It is a form of inflammatory disease
- There are 5 forms of Hepatitis Virus i.e A, B, C, D and E
- All viruses are transmitted through consumption of contaminated water or food

**Select the correct code/s**

- 1, 2 and 3
- 2 and 3
- 1 and 3
- 1 and 2

Solution- 4

Only Hepatitis A and E are transmitted through consumption of contaminated water or food.

<http://www.who.int/features/qa/76/en/>

28<sup>th</sup> July- WORLD HEPATITIS DAY

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