



# VIVEK TUTORIALS

IX (English)  
(Final Examination)

Science And Technology 1-(11,12,13,14)

DATE: 17-03-19

TIME: 2 hour

MARKS: 40

SEAT NO:

--	--	--	--	--	--	--	--

Q.1 Solve the following questions.

(5)

1) Find the odd one out

The production of biogas is an/a ..... process.

2) Ethane :  $\text{CH}_3\text{-CH}_3$  :: Ethene : .....

3) State True or False

In winter, the velocity of sound at Nagpur is less than that at Mumbai.

4) Carbon dioxide gas is not used in .....

a. Aerated drinks      b. Fire extinguishers      c. Photosynthesis      d. Glass cutting

5) Name the chemicals used in regular fire extinguisher.

B) Choose the correct alternative and rewrite the sentence

(5)

1) Medical science uses ultrasound for:

- A. X Ray
- B. Cataract
- C. Plastic Surgery
- D. Sonography

2) Which of the following has a double bond?

a. hydrogen molecule      b. Oxygen molecule      c. Nitrogen molecule      d. Ammonia molecule

3) Unit of magnification is -

- A. m
- B. cm
- C. no unit as it is ratio
- D. dm

4) Carbon has four valence electrons in its outermost shell, hence it is .....

a. monovalent      b. Bivalent      c. Trivalent      d. Tetravalent

5) Which statement(s) hold true for sound waves

- A. Sound waves need material medium for propagation
- B. Sound waves like light waves follow laws of reflection
- C. Both a and b
- D. None of the above

Q.2 Solve the following questions. (Any five)

(10)

1) Curved boards are placed behind a speaker in an auditorium.

- 2) Bleaching Powder
- 3) Distinguish between  
Crystalline and Non- crystalline forms of carbon
- 4) A wave has time period 20 seconds & is moving with a speed of 25 m/s. What is its wavelength? What is the distance between:  
1) two adjacent crests on wave 2) adjacent crest & trough?
- 5) What is allotropy?
- 6) We cannot hear echo produced in our class room or in our house.

Q.3 Solve the following questions. (Any five)

(15)

- 1) Explain how the principle of echo is used in the SONAR systems to measure the depth of water.
- 2) What is an element? What the different types of element?
- 3) What type of colors will you use to celebrate eco-friendly Rang Panchami? Why?
- 4) State the properties: Covalent Compounds
- 5) What do you mean by ultrasonic sound? Mention the uses of ultrasonic sound in the field of medicine.
- 6) What is a spherical mirror? State its two types.
- 7) When a person stands in front of a plane mirror, how is the image formed? What is the nature of the image?

Q.4 Solve the following questions. (Any one)

(5)

- 1) Describe the human ear with the help of a diagram.
- 2) To hear the sound coming from a distant source, we hold the hollow of our hand at the back of our ear – Explain.