

**Statement 2 is correct:** Intracytoplasmic sperm injection (ICSI) is often used for couples with male factor infertility. Sometimes it is also used for older couples or for those with failed IVF attempts. In ICSI, a **single sperm is injected into a mature egg** as opposed to “conventional” fertilization where the egg and sperm are placed in a petri dish together and the sperm fertilizes an egg on its own.

**Statement 3 is incorrect:** Zygote intrafallopian transfer (ZIFT) or tubal embryo transfer. This is similar to IVF. **Fertilization occurs in the laboratory.** Then the very young embryo is transferred to the fallopian tube instead of the uterus.

**Statement 4 is correct:** Gamete intrafallopian transfer (GIFT), involves transferring eggs and sperm into the woman's fallopian tube. Fertilization occurs in the woman's body.

Source: <https://blog.forumias.com/in-vitro-fertilization-ivf/>

<https://www.medicalnewstoday.com/articles/assisted-reproductive-technology#types>

<https://www.geosalud.com/infertility/different-types-of-assisted-reproductive-technology.html>

**Q.11)** Which of the following is **incorrect** with reference to the Gupta Architecture:

- Guptas patronized Buddhist cave buildings along with Hindu temples.
- The use of mural paintings on the walls of the caves was a major feature in the Gupta period.
- The inscription on pillars as a symbol to commemorate battle victories was introduced in this period.
- Udayagiri Caves in Madhya Pradesh were built during the Gupta period.

**Ans) c**

**Exp) Option c is the correct answer.**

**The emergence of the Gupta Empire in 4th century AD** is often hailed as the “**Golden Age of India**”. Temple architecture reached its climax during this period. Similarly, Buddhist and Jain art also reached its peak during the Gupta Age.

**Option a is correct:** **Buddhist cave buildings** continued to be built under the patronage of Guptas and Vakatakas. While the earlier Gupta rulers were Buddhists and continued the traditions of Buddhist architecture, temple architecture came to the fore front under the patronage of the Hindu rulers of the later Gupta phase. They have been found at Ajanta and Bagh, of which Ajanta caves are best preserved.

**Option b is correct:** **During the Gupta period**; architectural development of the caves remained constant. However, the **use of mural paintings on the walls** of the caves **became an added feature**. Some of the finest examples of mural paintings can be found in the caves of Ajanta and Ellora.

**Option c is incorrect:** **During the reign of Ashoka**, the inscription on pillars as a **symbol of the State or to commemorate battle victories were introduced and** assumed **great significance**. (And not during the Gupta period.) He also used pillars to propagate imperial sermons as well. The pillars were usually made of chunar sandstone and comprised of Shaft and Capital. On top of it lay the capital, which was either lotus shaped or bell shaped. The bell-shaped capitals were influenced by the Iranian pillars, as was the highly polished and lustrous finish of the pillars. Above it, there was a circular or rectangular base known as the abacus on which an animal figure was placed.

**Option d is correct:** The early Gupta style is dated from 3rd century to 5th century CE. There are both cave and free-standing temples made under this style. One such Cave complex was discovered at **Udayagiri in Madhya Pradesh**. **Udayagiri Caves** is a group of 20 Gupta-era temples and monasteries carved out of a rocky hill. One cave here is dedicated to Jainism and rest to Hinduism. Brahmi inscriptions on the caves indicate that the site was excavated during the rule of Gupta King, Chandragupta II.

Source: Indian art and culture by nitin singhania pdf. Chapter name- Indian Architecture, Sculpture and Pottery. Page no.56 and 71 to 80.

**Q.12)** With reference to Art and Architecture in ancient India, consider the following statements:

- The Mathura School flourished on the banks of the river Yamuna whereas the Amaravati School developed on the banks of Godavari River.
- The Mathura School was influenced by the stories and imageries on Buddhism and Hinduism whereas the Amaravati School was influence by Jainism only.
- The Mathura School showed a striking use of symbolism in the images whereas the Amaravati School put more emphasis on the use of dynamic images.

Which of the statements given above is/are **incorrect**?