

## SOLUTION OF ENTRANCE TEST - 2020

### Answer

1.(a)

The Harappan seal made of a stone called steatite; seals like this one often contain animal motifs and signs from a script that remains undeciphered. Archaeological objects of Harappan culture were found in Afghanistan, India and Pakistan.

### Answer

2.(d)

Each stupa has a history of its own – as we have just seen, some of these are histories of how they were built. But there are histories of discoveries as well, and let us now turn to some of these. In 1796, a local raja who wanted to build a temple stumbled upon the ruins of the stupa at Amaravati. He decided to use the stone, and thought there might be some treasure buried in what seemed to be a hill. Some years later, a British official named Colin Mackenzie visited the site. Although he found several pieces of sculpture and made detailed drawings of them, these reports were never published.

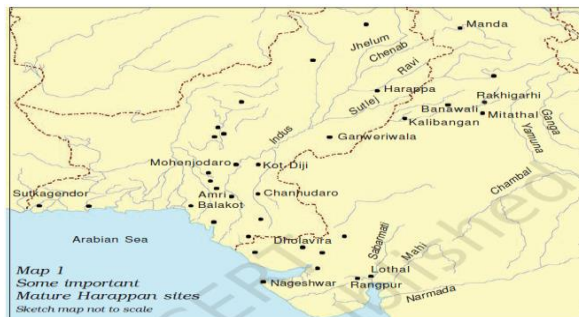
### Answer

3.(a)

A black hole is a region of space from which nothing, *not even light, can escape*. Despite the name, they are *not empty* but instead consist of a huge amount of matter packed densely into a small area, giving it an immense gravitational pull. There is a region of space beyond the black hole called the **Event Horizon**. This is a "point of no return", beyond which it is impossible to escape the gravitational effects of the black hole. Anything that comes within the event horizon will be consumed forever. Because no light can escape from it, a black hole is invisible. However, advanced space telescopes can identify black holes by observing the behaviour of material and stars that are very close to black holes. This hot disk of material encircling a black hole, as NASA explained, shines bright. And against this disk, a black hole appears to cast a shadow. This is how the photograph of the black hole was achieved. A **wormhole** is a theoretical passage through space-time that could create shortcuts for long journeys across the universe.

### Answer

4. C



The Tripartite struggle between the Palas, the Pratiharas and Rashtrakutas took place in the ninth century. The struggle was about taking control on the northern part of India. Firstly, it was conquered by the Rastrakuta ruler from the successor of Nagabhata II. Then his empire was started to decline by the Palas in the ninth century. It was then known by the name the Later

Chalukya dynasty.. By the end of their rule on the southern part, Pratiharas won the war and established their empire in the central part of India.

**Answer**

5. (a)

Chanhudaro, a tiny settlement (less than 7 hectares) as compared to Mohenjodaro (125 hectares), almost exclusively devoted to craft production, including bead-making, shell-cutting, metal-working, seal-making and weight-making. The variety of materials used to make beads is remarkable: stones like carnelian (of a beautiful red colour), jasper, crystal, quartz and steatite; metals like copper, bronze and gold; and shell, faience and terracotta or burnt clay.

The shapes were numerous – disc shaped, cylindrical, spherical, barrel-shaped, segmented.

Nageshwar and Balakot, both settlements are near the coast. These were specialised centres for making shell objects – including bangles, ladles and inlay.

**Answer**

6. (d)

- The twelfth century witnessed the emergence of a new movement in Karnataka, led by a Brahmana named Basavanna (1106-68) who was a minister in the court of a Kalachuri ruler. His followers were known as Virashaivas (heroes of Shiva) or Lingayats (wearers of the linga)
- Lingayats continue to be an important community in the region to date. They worship Shiva in his manifestation as a linga, and men usually wear a small linga in a silver case on a loop strung over the left shoulder. Those who are revered include the jangama or wandering monks. Lingayats believe that on death the devotee will be united with Shiva and will not return to this world. Therefore they do not practise funerary rites such as cremation, prescribed in the Dharmashastras. Instead, they ceremonially bury their dead
- The Lingayats challenged the idea of caste and the “pollution” attributed to certain groups by Brahmanas. They also questioned the theory of rebirth. These won them followers amongst those who were marginalised within the Brahmanical social order. The Lingayats also encouraged certain practices disapproved in the Dharmashastras, such as post-puberty marriage and the remarriage of widows. Our understanding of the Virashaiva tradition is derived from vachanas (literally, sayings) composed in Kannada by women and men who joined the movement.

**Answer**

7. (b)

**Answer**

8. (a)

It was R.E.M. Wheeler, after he took over as Director- General of the ASI in 1944, which rectified this problem. Wheeler recognised that it was necessary to follow the stratigraphy of the mound rather than dig mechanically along uniform horizontal lines.

It is not the Harappan script that helps in understanding the ancient civilisation. Rather, it is material evidence that allows archaeologists to better reconstruct Harappan life. This material could be pottery, tools, ornaments, household objects, etc. Organic materials such as cloth, leather, wood and reeds generally decompose, especially in tropical regions. What survive are stone, burnt clay (or terracotta), metal, etc

## Answer

9. (d)

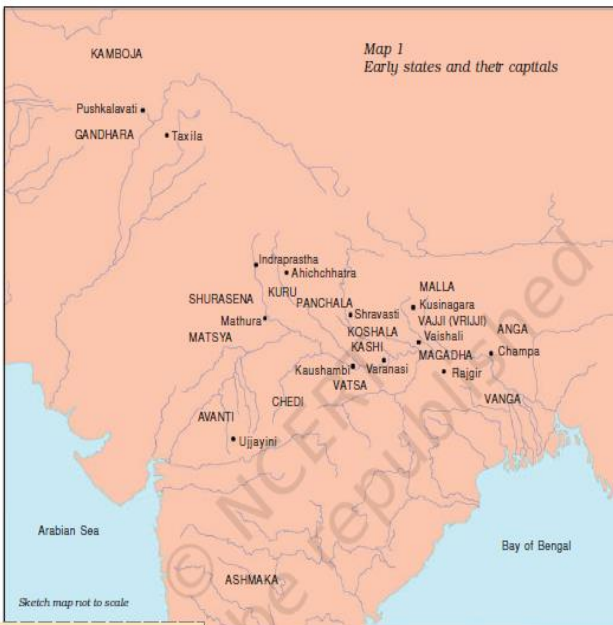
The sixth century is often regarded as a major BCE turning point in early Indian history. It is an era associated with early states, cities, the growing use of iron, the development of coinage, etc.

While most mahajanapadas were ruled by kings, some, known as ganas or sanghas, were oligarchies, where power was shared by a number of men, often collectively called rajas. Both Mahavira and the Buddha belonged to such ganas. Each mahajanapada had a capital city, which was often fortified. Maintaining these fortified cities as well as providing for incipient armies and bureaucracies required resources.

From c. sixth century BCE onwards, Brahmanas began composing Sanskrit texts known as the Dharmasutras. These laid down norms for rulers (as well as for other social categories), who were ideally expected to be Kshatriyas (see also Chapter 3). Rulers were advised to collect taxes and tribute from cultivators, traders and artisans.

## Answer

10. (b)



Modern historians explain development in a variety of ways: Magadha was a region where agriculture was especially productive. Besides, iron mines (in present-day Jharkhand) were accessible and provided resources for tools and weapons. Elephants, an important component of the army, were found in forests in the region. Also, the Ganga and its tributaries provided a means of cheap and convenient communication. However, early Buddhist and Jaina writers who wrote about Magadha attributed its power to the policies of individuals: ruthlessly ambitious kings of whom Bimbisara, Ajatasattu and Mahapadma Nanda are the best known, and their ministers, who helped implement their policies. Initially, Rajagaha (the Prakrit name for presentday

Rajgir in Bihar) was the capital of Magadha. Interestingly, the old name means “house of the king”. Rajagaha was a fortified settlement, located amongst hills. Later, in the fourth century BCE, the capital was shifted to Pataliputra, present-day Patna, commanding routes of communication along the Ganga.

Anga Mahajanapada was located in the east of Magadha.

## Answer

11. (d)

There were five major political centres in the empire –

### Languages and scripts

Most Asokan inscriptions were in the Prakrit language while those in the northwest of the subcontinent were in Aramaic and Greek. Most Prakrit inscriptions were written in the Brahmi script; however, some, in the northwest, were written in Kharosthi. The Aramaic and Greek scripts were used for inscriptions in Afghanistan.

the capital Pataliputra and the provincial centres of Taxila, Ujjayini, Tosali and Suvarnagiri, all mentioned in Asokan inscriptions. If we examine the content of these inscriptions, we find virtually the same message engraved everywhere – from the present-day North West Frontier Provinces of Pakistan, to Andhra Pradesh, Orissa and Uttarakhand in India. The regions included within the empire were just too diverse. Imagine the contrast between the hilly terrain of Afghanistan and the coast of Orissa. It is likely that administrative control was strongest in areas around the capital and the provincial centres. These centres were carefully chosen, both Taxila and Ujjayini being situated on important long-distance trade routes, while Suvarnagiri (literally, the golden mountain) was possibly important for tapping the gold mines of Karnataka.

### Answer

12. (c)

The Prayaga Prashasti (also known as the Allahabad Pillar Inscription) composed in Sanskrit by Harishena, the court poet of Samudragupta, arguably the most powerful of the Gupta rulers (c. fourth century CE).

The term *gahapati* was often used in Pali texts to designate the second and third categories. The large landholders, as well as the village headman (whose position was often hereditary), emerged as powerful figures, and often exercised control over other cultivators. Early Tamil literature (the Sangam texts) also mentions different categories of people living in the villages – large landowners or *vellalar*, ploughmen or *uzhavar* and slaves or *adimai*.

An *agrahara* was land granted to a Brahmana, who was usually exempted from paying land revenue and other dues to the king, and was often given the right to collect these dues from the local people.<sup>13</sup> (d)

Guilds or *shrenis*, organisations of craft producers and merchants, are mentioned as well. These guilds probably procured raw materials, regulated production, and marketed the finished product. It is likely that crafts persons used a range of iron tools to meet the growing demands of urban elites.

Punch-marked coins made of silver and copper (c. sixth century onwards) BCE were amongst the earliest to be minted and used. These have been recovered from excavations at a number of sites throughout the subcontinent.

The first coins to bear the names and images of rulers were issued by the Indo-Greeks, who established control over the north-western part of the subcontinent c. second century BCE. The first gold coins were issued c. first century CE by the Kushanas. These were virtually identical in weight with those issued by contemporary Roman emperors and the Parthian rulers of Iran, and have been found from several sites in north India and Central Asia.

Some of the most spectacular gold coins were issued by the Gupta rulers. The earliest issues are remarkable for their purity. These coins facilitated long-distance transactions from which kings also benefited.

### Answer

13.C

### Answer

14. (b)

Scholars who studied early inscriptions sometimes assumed these were in Sanskrit, although the earliest inscriptions were, in fact, in Prakrit. It was only after decades of painstaking

investigations by several epigraphists that James Prinsep was able to decipher Asokan Brahmi in 1838.

**Answer**

15. (c)

The concern with patriliney was not unique to ruling families. It is evident in mantras in ritual texts such as the *Rigveda*. It is possible that these attitudes were shared by wealthy men and those who claimed high status, including Brahmanas.

The divine origin of Varna order is traced from Purusha sukta of Rigveda.

**Answer**

16. (c)

Daughters were viewed rather differently from the son within this framework. They had no claims to the resources of the household. At the same time, marrying them into families outside the kin was considered desirable. This system, called exogamy (literally, marrying outside), meant that the lives of young girls and women belonging to families that claimed high status were often carefully regulated to ensure that they were married at the “right” time and to the “right” person. This gave rise to the belief that *kanyadana* or the gift of a daughter in marriage was an important religious duty of the father. In fact, it exemplified an alternative practice, that of endogamy or marriage within the kin group, which was (and is) prevalent amongst several communities in south India.

The number of *varnas* was fixed at four; there was no restriction on the number of *jatis*. In fact, whenever Brahmanical authorities encountered new groups – which did not easily fit into the fourfold *Varna* system, they classified them as a *jati*. *Jatis* which shared a common occupation or profession were sometimes organised into *shrenis* or guilds.

Present-day historians suggest that the fact that the author(s) describe a polyandrous union indicates that polyandry may have been prevalent amongst ruling elites at some point of time. Some historians note that while the practice of polyandry may have seemed unusual or even undesirable from the Brahmanical point of view, it was (and is) prevalent in the Himalayan region. Others suggest that there may have been a shortage of women during times of warfare, and this led to polyandry. In other words, it was attributed to a situation of crisis.

**Answer**

17. (b)

The Buddhists recognised that there were differences in society, but did not regard these as natural or inflexible. They also rejected the idea of claims to status on the basis of birth.

Those included handling corpses and dead animals. Those who performed such tasks, designated as chandalas, were placed at the very bottom of the hierarchy. Their touch and, in some cases, even seeing them was regarded as “polluting” by those who claimed to be at the top of the social order. Matanga Jataka, a Pali text, where Bodhisatta is identified as Chandala.

**Answer**

18. (a)

According to Jaina teachings, the cycle of birth and rebirth is shaped through karma. Asceticism and penance are required to free oneself from the cycle of karma. This can be achieved only by renouncing the world; therefore, monastic existence is a necessary condition of salvation. Jaina monks and nuns took five vows: to abstain from killing, stealing and lying; to observe celibacy; and to abstain from possessing property.

According to Buddhist philosophy, the world is transient (*anicca*) and constantly changing; it is also soulless (*anatta*) as there is nothing permanent or eternal in it. Within this transient world, sorrow (*dukkha*) is intrinsic to human existence. It is by following the path of moderation between severe penance and self-indulgence that human beings can rise above these worldly troubles. In the earliest forms of Buddhism, whether or not god existed was irrelevant. The Buddha regarded the social world as the creation of humans rather than of divine origin.

**Answer**

19. (d)

The sculpture at Sanchi identifies it as a scene from the *Vessantara Jataka*. This is a story about a generous prince who gave away everything to a Brahmana, and went to live in the forest with his wife and children.

*A votive inscription from Sanchi* Hundreds of similar inscriptions have also been found at Bharhut and Amaravati.

The stupa (a Sanskrit word meaning a heap) originated as a simple semi-circular mound of earth, later called *anda*. Gradually, it evolved into a more complex structure, balancing round and square shapes.

Above the *anda* was the *harmika*, a balcony like structure that represented the abode of the gods. Arising from the *harmika* was a mast called the *yashti*, often surmounted by a *chhatra*

or umbrella. Around the mound was a railing, separating the sacred space from the secular world.

**Answer**

20. (a)

Early Buddhist teachings had given great importance to self-effort in achieving *nibbana*. Besides, the Buddha was regarded as a human being who attained enlightenment and *nibbana* through his own efforts. However, gradually the idea of a saviour emerged. It was believed that he was the one who could ensure salvation. Simultaneously, the concept of the Bodhisatta also developed. Bodhisattas were perceived as deeply compassionate beings that accumulated merit through their efforts but used this not to attain *nibbana* and thereby abandon the world, but to help others

**Answer**

21: (c)

- The North star indicates the north direction. It is also called the Pole Star. It always remains in the same position in the sky. We can locate the position of the Pole Star with the help of the Saptarishi
- The North Star or Pole Star – aka Polaris – is famous for holding nearly still in our sky while the entire northern sky moves around it. That’s because it’s located nearly at the north celestial pole, the point around which the entire northern sky turns. Polaris marks the way due north.
- Polaris hasn’t always been the North Star and won’t remain the North Star forever. For example, a famous star called Thuban, in the constellation Draco the Dragon, was the North Star when the Egyptians built the pyramids

**Answer**

22: (c)

- There are eight planets in our solar system. In order of their distance from the sun, they are: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune
- An easy way to memorise the name of the planets in order of their distance from the sun is: MY VERY EFFICIENT MOTHER JUST SERVED US NUTS.

**Answer**

23: (c)

Venus is considered as 'Earth's-twin' because its size and shape are very much similar to that of the earth

**Answer**

24(c)

- Dwarf planet, body, other than a natural satellite (moon), that orbits the Sun and that is,
- for practical purposes, smaller than the planet Mercury yet large enough for its own gravity to have rounded its shape substantially.
- The International Astronomical Union (IAU) adopted this category of solar system bodies in August 2006, designating Pluto, the even more-remote object Eris, and the asteroid Ceres as the first members of the category.
- Unlike major planets, these bodies are not massive enough to have swept up most smaller nearby bodies by gravitational attraction; they thus failed to grow larger.

**Answer**

25: (c)

- Asteroids aren't all round like planets. They have jagged and irregular shapes.
- Apart from the stars, planets and satellites, there are numerous tiny bodies which also move around the sun. These bodies are called asteroids. They are found between the orbits of Mars and Jupiter
- Since asteroids formed at the same time as other objects in our solar system, these space rocks can give scientists lots of information about the history of planets and the sun.

**Answer**

26: (d)

- A meteor is the flash of light that we see in the night sky when a small chunk of interplanetary debris burns up as it passes through our atmosphere, also known as a shooting star. Most meteoroids that enter the Earth's atmosphere are so small that they vaporise completely and never reach the planet's surface.
- These meteors come from meteoroids, there are three main sources of meteoroids. Many are left over from the dust that formed the Solar System. Others are fragments of asteroids, broken off in collisions. Huge meteor showers, caused by many meteoroids entering the atmosphere in one go, are caused by comets. They occur when the Earth's atmosphere passes through a stream of small particles left behind in the comet's tail.
- If any part of a meteoroid survives the fall through the atmosphere and lands on Earth, it is called a meteorite. Although majority of the meteorites are very small, their size can range from about a fraction of a gram (the size of a pebble) to 100 kilograms or more (the size of a huge, life-destroying boulder).

**Answer**

27: (b)

- The mid-day sun never shines overhead on any latitude beyond the Tropic of Cancer and the Tropic of Capricorn. The angle of the sun's rays goes on decreasing towards the poles
- The Prime Meridian and 180° meridian divide the earth into two equal halves, the Eastern Hemisphere and the Western Hemisphere. Therefore, the longitude of a place is followed by the letter E for the east and W for the west. It is, however, interesting to note that 180° East and 180° West meridians are on the same line
- As the earth rotates from west to east, those places east of Greenwich will be ahead of Greenwich time and those to the west will be behind it

**Answer**

28: (a)

**Answer**

29: (a)

**Answer**

30: (c)

- A great circle is the largest possible circle that can be drawn around a sphere. All spheres have great circles. If you cut a sphere at one of its great circles, you'd cut it exactly in half. A great circle has the same circumference, or outer boundary, and the same center point as its sphere.
- On the Earth, a circle of latitude is an imaginary east-west circle that connects all locations with a given latitude. A location's position along a circle of latitude is given by its longitude. Circles of latitude are often called parallels because they are parallel to each other.

**Answer**

31. (b)

- **Concurrent List** includes subjects of common interest to both the Union Government as well as the State Governments, such as **education, forest, trade unions, marriage, adoption and succession**. Both the Union as well as the State Governments can make laws on the subjects mentioned in this list.
- If their laws conflict with each other, the law made by the Union Government will prevail.
- **Union List** includes subjects of national importance such as defence of the **country, foreign affairs, banking, communications and currency**.
- **State List** contains subjects of State and local importance such as **police, trade, commerce, agriculture and irrigation**.

**Answer**

32. c

- A major step towards decentralisation was taken in 1992. The Constitution was amended to make the third-tier of democracy more powerful and effective.
- Now it is constitutionally mandatory to hold regular elections to local government bodies.



- Seats are reserved in the elected bodies and the executive heads of these institutions for the Scheduled Castes, Scheduled Tribes.
- **An independent institution called the State Election Commission has been created** in each State to conduct panchayat and municipal elections.
- The State governments are required to share some powers and revenue with Local government bodies.

**Answer**

33.(a)

**Answer**

34.(a)

**Answer**

35.(c)

- (a) Art 19 Protection of six rights regarding freedom of:
- (i) Speech and expression
  - (ii) assembly
  - (iii) association
  - (iv) Movement
  - (v) residence, and
  - (vi) profession
- (b) Protection in respect of conviction for offences (Article)
- (c) Protection of life and personal liberty (Article 21).
- (d) Right to elementary education (Article 21A).
- (e) Protection against arrest and detention in certain cases (Article 22).

**Answer**

36. (c)

“We, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens:

**Answer**

37.(a)

**Answer**

38. (b)

Thought-process

- Indian Councils Act of 1909 introduced a system of communal representation for Muslims by accepting the concept of separate electorate. Under this, the Muslim members were to be elected only by Muslim voters. Thus, the Act legalised communalism and Lord Minto came to be known as the Father of Communal Electorate.
- GOI act 1919 introduced Bicameralism and direct elections. Indian Councils Act of 1892 gave the legislative councils, for the first time, the power to discuss budget and also a system of indirect elections was introduced to elect the members of the councils

**Answer**

39.(a)

**Answer**

40.(d)

Justification: The Parliament consists of the President, Lok Sabha and Rajya Sabha. So, the President forms an integral part of the Parliament, since no bill can become an act without her consent. But, the President is not required to attend the sessions of Parliament at all. He only presents welcome address which is passed as motion of thanks every time a new house is constituted.

**Answer:-**

**41. (d)**

Statement 1 is correct. Buddhism and Jainism had been prevalent in Tamil Nadu for several centuries, and they were getting support from merchant and artisan but they received occasional royal patronage. According to the historians, there was competition between members of other religious traditions for royal patronage in Tamil region. Thus, one of the major themes in Tamil Bhakti hymns is the poets opposition to Buddhism and Jainism. Statement 2 is correct. During ninth to thirteenth centuries, the powerful chola rulers supported Brahmanical and Bhakti traditions, making land grants and constructing temples for Vishnu and Shiva. Temples, at Chidambaram, Thanjavur and Gangaikonda Cholapuram were constructed under the patronage of Chola rulers. Statement 3 is correct. The Chola kings attempted to claim divine support and proclaimed their own power and status by building splendid temples that were adorned with stone and metal sculpture.

**Answer**

**42. (C)**

- The global stocktake established under Article 14 of the Paris Agreement is a process for taking stock of collective progress toward achieving the purpose of the Agreement and its long-term goals. It takes place every five years.
- The outcome of the global stocktake shall inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of the Agreement, as well as in enhancing international cooperation for climate action.
- This working paper analyzes options for the core elements of modalities of the global stocktake for adoption at the 24th Conference of the Parties (COP24), which will meet in December 2018. It highlights key considerations for the development of a robust, effective, and inclusive global stocktake.
- Countries should consider how best to operationalize the scope of the global stocktake through modalities and procedures such as inputs, workstreams, and outputs, while taking into account the mandate set by the Paris Agreement (form follows function).
- In designing the modalities, Parties should ensure that the global stocktake is a process that evolves and grows stronger over time by seizing opportunities that emerge from societal, economic, and technological changes; building on lessons learned; and incorporating new information and best practices

**Answer:-**

**43. (d)**

According to the Conduct of Elections Rules, 1961 rule 49-O says that “Elector deciding not to vote. If an elector after his electoral roll number has been duly entered in the register of voters in Form 17A and has put his signature or thumb impression thereon as required under sub-rule (1) of rule 49L, decided not to record his vote, a remark to this effect shall be made against the said entry in Form 17A by the presiding officer and the signature or thumb impression of the elector shall be obtained against such remark.

- RPA, 1951 does not talk about NOTA.
- Supreme Court has enacted it.
- Number of NOTA votes does not amount any action. It is only an expressed opinion of voters.

**Answer:-**

**44.(c)**

- Samudragupta court poet and minister Harisena composed the Allahabad pillar Inscription or PrayagPrasasti. The Pillar was an Asokan Pillar erected by Asoka six century before him. This Inscription is a eulogy of Samudragupta and mentions about the conquests of Samudragupta and boundaries of the Gupta Empire. As per this inscription, Samudragupta defeated 9 kings in North, 12 Kings in South, reduced all the Atavika states to vassalage.
- According to the inscription on it, the pillar was erected at its original venue by Chandragupta II Vikramaditya (375–414 C.E.) and according to archaeologists, originally the column with a l of Chakra (discus of God Vishnu) at the top, was originally located at a place called Vishnupadagiri (meaning “hill with footprint of Lord Vishnu”). This location has been identified as modern Udayagiri, a town located about 50 km east of Bhopal, in central India. Vishnupadagiri is located on the Tropic of Cancer and, therefore, was a centre

of astronomical studies during the Gupta period. The Iron Pillar served as a sundial, when it was originally at Vishnupadagiri. The early morning shadow of the Iron Pillar fell in the direction of the foot of the God Vishnu in one of the panels at Udayagiri only around the summer solstice on June 21. This pillar was plundered by Islamic hordes from a Vishnu or Jain temple nearby and added as a trophy in the Quwwat al-Islam mosque which was built in 1193 A.D at Delhi by Qutubuddin Aibek the founder of the Slave Dynasty at Delhi.

- Naneghat is a mountain pass in the Western Ghats range near Junnar in Pune district of Maharashtra, India. During the reign of the Satavahana (200 BCE–190 CE), the pass was extensively used as a trade route between Kalyan and Junnar. Literally, the name nane means “coin” and ghat means “pass”. The name is given because this path was used as a tollbooth to collect toll from traders crossing the hills. The location is ideal for star gazing and star photography.
- The inscriptions in the caves indicate that they are the work of Satavahana rulers who came into prominence after the fall of the Mauryan empire. It is believed that a powerful woman ruler Naganika, the wife of Satakarni (180–170 BCE) of the Satavahana family commissioned the cave, the statues and the inscriptions. Inscriptions in the cave mention her and her family members.

**Answer:-**

**45. b**

- Chand Baori in Abhaneri, near Jaipur, Rajasthan, is among the largest, if not the largest, of the stepwells. It is also perhaps the most visually spectacular: Chand Baori is a deep four-sided structure with an immense temple on one face. Some 3,500 Escher-esqe terraced steps march down the other three sides 13 stories to a depth of 100 feet. The construction dates to the 10th century, and is dedicated to Harshat Mata, goddess of joy and happiness.

**Answer:-**

**46. : (b)**

- Nonclastic sedimentary rocks form from chemical reactions, chiefly in the ocean. Nonclastic and clastic sedimentary rocks are the only members of the rock family that contain fossils as well as indicators of the climate that was present when the rock was formed.

**Answer**

**47. (c)**

- Neutron stars have extremely strong magnetic fields. Some of them, known as magnetars have the strongest magnetic fields in the entire universe, a hundred million times stronger than the strongest man-made magnetic fields. These magnetic poles of these stars emit cones of light in radio, optical, X-ray or gamma-ray wavelengths.
- Much like a lighthouse, the rotation of the neutron stars periodically sweeps these cones of light in the direction of the Earth, causing us to see a pulsating star, or a pulsar.

**Answer:-**

**48. (a)**

- There are three Domestically important bank and not Global systematic important bank

- Financial stability board by G20

**Answer:-**

**49.d**

- The Chilika lake is the largest salt water (not fresh water) lake in India. so, statement 1 is incorrect. India's only active volcano is found in Barren island of Andaman and Nicobar
- (not Lakshadweep) group of Islands. so, statement 2 is incorrect. As both the statement are incorrect, therefore the right option will be (d).

**Answer:-**

**50. (b)**

- The western cyclonic disturbance originate in Mediterranean sea (not Arabian Sea) in the cold weather season. so, statement 1 is incorrect.
- The western cyclonic disturbance effect the north and north-west regions of India. so, statement 2 is correct. Therefore, the right option will be (b)

**Answer:-**

**51. (d)**

In India, the tropical evergreen forest are found in Western Ghats, Lakshadweep, Andaman and Nicobar, upper part of Assam and Tamil Nadu coast, as these areas receive more than 200 cm of rainfall with a short dry season. so, the correct option will be (d).

**Answer:-**

**52.b**

**The sudden displacement of ocean water is called Tsunami. Its speed is more in the deep water and less in the shallow ocean. So, statement 1 is incorrect. Tsunami is generated due to earthquakes and sudden movement in sea floor which results in sudden displacement of water. So, statement 2 is correct. so the right answer will be (b)**

**Answer:-**

**53. (d)**

Yokohama strategy (23-27 May 1994, Japan) is related with the natural disaster reduction. So, the right answer will be (d)

**Answer:-**

**54. (a)**

The 'pluck and plant' named movement started in karnataka in 1987. In which people plucked the eucalyptus plants and planted saplings of trees that were useful to the people. so, the right answer will be (a).

**Answer:-**

**55. (a)**

- The Gandhara School of art had also developed in first century AD along with Mathura School during reign of Kushana emperor Kanishka. Both Shakas and Kushanas were patrons of Gandhara School, which is known for the first sculptural representations of the Buddha in

human form. The art of the Gandhara school was primarily Mahayana and shows Greco-Roman influence.

- The Buddha image of Gandhara Art The Gandharan Buddha image was inspired by Hellenistic realism, influenced by Persian, Scythian, and Parthian models. In contrast with Mathura School, the Gandhara School images are known for their anatomical accuracy, spatial depth, and foreshortening. In this art, Buddha's curls were altered into wavy hair. The head of the Buddha matched very much with Greek God Apollo.
- The gestures are as follows: Abahayamudra : Don't fear Dhyanamudra : meditation Dharmachakramudra: a preaching mudra Bhumisparshamudra: Touching the earth
- The Gandhara school drew upon the anthropomorphic traditions of Roman religion and represented the Buddha with a youthful Apollo-like face, dressed in garments resembling those seen on Roman imperial statues. The Gandhara depiction of the seated Buddha was less successful. The schools of Gandhara and Mathura influenced each other, and the general trend was away from a naturalistic conception and toward a more idealized, abstract image. The Gandhara craftsmen made a lasting contribution to Buddhist art in their composition of the events of the Buddha's life into set scenes.
- The Gandhara art spread to Mathura and produced several images of Buddha

**Answer:-**

**56. (c)**

- The static nature of the Hindu caste system has kept many craft forms alive merely because the artisan had no opportunity to move away to other professions as social boundaries were rigid and hierarchical.
- The skill of weaving carpets and superior forms of shawls was brought to Kashmir by the pre-Moghul king, Zain-ul-Abidin. Persian artisans enriched carpet-weaving and shawl-making according to the needs of Indian courts.

**Answer:-**

**57. (c)**

- The Citizenship Act, 1955 provides for compulsorily registration of every citizen of India and issuance of National Identity Card to him. The Citizenship Rules, 2003 framed under the Citizenship Act, 1955 prescribe the manner of preparation of the National Register of Citizens. There is a special provision under the Rules to prepare National Register of Citizens (NRC) in Assam which is application based and distinct from the rest of India where the process is enumeration based. The applications for preparation of NRC in Assam were invited in May-August, 2015 and after necessary scrutiny & verification, the draft NRC has been published on 30<sup>th</sup> July, 2018.
- After the publication of draft NRC, the process of filing claims & objections on the draft NRC has started on 25.09.2018 and will remain open upto 31.12.2018 whereafter the verification process will commence from 15.02.2019 in accordance with the directions of the Hon'ble Supreme Court. Any person, who does not find his/her name in the draft NRC may file the claims. Similarly, any person can file objections in respect of inclusion of any name in the draft NRC list. Total number of persons included in the draft NRC is

2,89,83,677 out of 3.30 crore. Hon'ble Supreme Court of India is monitoring the NRC process in the State of Assam.

**Answer:-**

**58. (b) Included in Heritage list**

- The Indian Institute of Architects, founded in Bombay in 1929, played a prominent role in propagating the Art Deco movement. In November 1937, this institute organized the 'Ideal Home Exhibition' held in the Town Hall in Bombay which spanned over 12 days and attracted about one hundred thousand visitors. As a result, it was declared a success by the 'Journal of the Indian Institute of Architects'. The exhibits displayed the 'ideal', or better described as the most 'modern' arrangements for various parts of the house, paying close detail to avoid architectural blunders and present the most efficient and well-thought-out models. The exhibition focused on various elements of a home ranging from furniture, elements of interior decoration as well as radios and refrigerators using new and scientifically relevant materials and methods.[1] Guided by their desire to emulate the west, the Indian architects were fascinated by the industrial modernity that Art Deco offered. The western elites were the first to experiment with the technologically advanced facets of Art Deco, and architects began the process of transformation by the early 1930s.[1]
- Bombay's expanding port commerce in the 1930s resulted in the growth of educated middle class population. It also saw an increase of people migrating to Bombay in search of job opportunities. This led to the pressing need for new developments through Land Reclamation Schemes and construction of new public and residential buildings.[2] Parallely, the changing political climate in the country and the aspirational quality of the Art Deco aesthetics led to a whole-hearted acceptance of the building style in the city's development. Most of the buildings from this period can be seen spread throughout the city neighbourhoods in areas such as Churchgate, Colaba, Fort, Mohammed Ali Road, Cumbala Hill, Dadar, Matunga, Bandra and Chembur.
- The Art Deco edifices, with their cinemas and residential buildings, blend Indian design with Art Deco imagery, creating a unique style that has been described as Indo-Deco. The Victorian Gothic and Art Deco ensembles bear testimony to the phases of modernisation that Mumbai has undergone in the course of the 19th and 20th centuries.

**Answer:-**

**59. (b)**

- It provided for the establishment of an All-India Federation consisting of provinces and princely states as units. The Act divided the powers between the Centre and units in terms of three lists—Federal List (for Centre, with 59 items), Provincial List (for provinces, with 54 items) and the Concurrent List (for both, with 36 items). Residuary powers were given to the Viceroy. However, the federation never came into being as the princely states did not join it
- It abolished dyarchy in the provinces and introduced 'provincial autonomy' in its place. The provinces were allowed to act as autonomous units of administration in their defined spheres. Moreover, the Act introduced responsible governments in provinces, that is, the governor was required to act with the advice of ministers responsible to the provincial legislature. This came into effect in 1937 and was discontinued in 1939.

- It provided for the adoption of dyarchy at the Centre. Consequently, the federal subjects were divided into reserved subjects and transferred subjects. However, this provision of the Act did not come into operation at all
- It introduced bicameralism in six out of eleven provinces. Thus, the legislatures of Bengal, Bombay, Madras, Bihar, Assam and the United Provinces were made bicameral consisting of a legislative council (upper house) and a legislative assembly (lower house). However, many restrictions were placed on them.
- It further extended the principle of communal representation by providing separate electorates for depressed classes (scheduled castes), women and labour (workers).
- It abolished the Council of India, established by the Government of India Act of 1858. The secretary of state for India was provided with a team of advisors.

**Answer:-**

**60.(b)**

- The koalas of Australia are not just famous for their cuteness.
- They have been an unsolved mystery among scientists for their strange eating habits — they enjoy the leaves of eucalyptus that would be toxic or even fatal to most mammals — and their exceptional parental care.

**Answer:-**

**61. (a)**

Options (b), (c) and (d) all contribute to the appalling conditions of the Indian healthcare system and can be termed as reasons for India's surge to the first position in the list. Only option (a) provides a cause to negate the implications of the report. Therefore, the correct answer is option (a).

**Answer:-**

**62. (c)**

Statement (1) cannot be inferred because the passage does not call Tamil Nadu the 'only' state with good quality of healthcare. Statement (2) also cannot be inferred because the passage speaks of the 'labour' rooms in institutions being of poor quality, and not all hospital rooms in general. Thus, the correct answer is option (c).

**Answer:-**

**63. (d)**

The passage says that India needs multiple measures to be applied with immediate effect to rectify the situation but does not call the situation hopeless. Thus, option (a) is incorrect. Option (b) is incorrect because though Nigeria's infant mortality rate is better, this does not necessarily amount to better facilities. Option (c) is not a correct inference due to lack of evidence in the passage. Option (d) is the correct answer because the passage states, "...poor health before and during pregnancy is already a big risk factor..."

**Answer:-**

**64. (a)**

Refer to the second paragraph. It says that privatization of energy services "enhanced trade" in many countries. This makes option (a) correct. Option (b) is incorrect because the author



simply says that energy plays a very important role in a country's economy but whether a country's economy would altogether stop functioning if there weren't any energy related services cannot be inferred from the given passage. Option(c)is incorrect because the author simply says that since the 1990's, energy services began to be privatized, which in turn led to an enhancement of trade. The information stated in option (c) is beyond the scope of the passage. Option (d) is incorrect. Refer to the line, The Uruguay Round, for the first time, brought services into the multilateral trading system", wherein, 'multilateral' means involving more than two nations or parties. Hence, it cannot be said that countries did not trade in energy services before the Urduguay Round. Therefore, option (a) is the correct answer.

**Answer:-**

**65. (c)**

Refer to the first paragraph of the passage that talks about all those factors that are dependent on or influenced by the availability of energy services. The very second line states that energy plays a major role in determining the economic development, which makes statement 1 correct. Statement 2 is not correct because there is no mention of per capita income in the passage. The paragraph also talks about the growth of commerce, which in other words, means the growth of trade and hence, statement 3 is also correct. Statement 4 is again incorrect because the author does not say anything about the social advancement of a country. Therefore, option (c) is the correct answer.

**Answer:-**

**66. (c)**

Statement (1) is incorrect because though the author states that infrastructural development is dependent on the availability of energy services, it cannot be inferred whether the architecture of a country would crumble without energy. Statement (2) is also incorrect. The passage simply says that the amount of energy consumed per capita is one of the determining factors of how modernized a country is but whether the progress of a country is directly proportional to the amount of energy that is consumed by people, is beyond the scope of the passage. Statement (3) is correct because it is directly stated at the end of the first paragraph that the amount of energy consumed per capita, is one of the deciding factors of how developed a country is. Therefore, option (c) is the correct answer.

**Answer:-**

**67. (d)**

Statement (1) is incorrect because the passage simply talks of a change in the industry structure because of the entry of the private sector, whereas the term 'upheaval' refers to a change that causes a lot of confusion, worry and problems. Statement (2) is also incorrect because the author tells us in the first paragraph that the entry of the private sector has led to "freedom from political interference" whereas the statement talks only about more freedom and so lesser interference. Statement (3) is also incorrect. Refer to the opening line of the passage, "...change in industry structure...due to entry of the private sector...has led to improvements in the public sector also". This fact has been Irequently argued' and thus, cannot be inferred if it is true or not. Therefore, option (d) is the correct answer.

**Answer:-**

**68. (b)**

Refer to the last lines of the first paragraph. There the author talks about how the Indian Airlines have not performed well because of all the competition. But then the passage does not tell us if the Indian Airlines were expected to perform well and hence, statement 1 is incorrect. Statement 2 is correct because it is clearly stated in the passage that the Indian railways did better than the Indian Airlines. Therefore, option (b) is the correct

**Answer:-**

**69. (a)**

The passage states that Fleming had warned that with im-proper usage of antibiotics, pathogens would become resis-tant to almost all antibiotics. This is what has transpired and, further, such pathogens have spread with alarming rapidity, There is no mention of constant evolution of superbugs. Hence, statements 1, 3 and 4 are correct, making option (a) the cor-rect answer.

**Answer:-**

**70. (b)**

The passage clearly states that Alexander Fleming is the discoverer of Penicillin and that he won the Nobel Prize for his work. So, option (b) is correct. Option (a) is not correct as Fleming had warned against improper usage of drugs and not about lack of research Option (c) is also incorrect as the passage mentions WHO's first global report on antimicrobial resistance and not the first ever global report on antimicrobial resistance. Option (d) is also wrong because the passage does not support it.

**Answer:-**

**71. (b)**

Refer to the line, “‘Superbugs’ resistant to almost all antibiotics have become a problem, raising worries of a return to the bad old days because...” This line suggests that the mentioned problem was prevalent in the bad old days, making statement 2 correct. The other two statements are only the cause of the return to the bad old days and hence, are incorrect. So, the correct answer is option (b).

**Answer:-**

**72. (a)**

the passage tells us about cloud-seeding which causes passing clouds to precipitate. Silver iodide spray is used for this. Hence, the correct answer is option (a). The other options cannot be definitely deduced from the passage as there is no reference to increase in volume of precipitation or of making any cloud precipitate regardless of its moisture content.

**Answer:-**

**73. (c)**

The passage states that earlier people used to consider cloud-seeding a costly endeavor with uncertain success, but post the success of various states in active field research, people are in favor of cloud-seeding. Hence, the correct answer is option (c). The other options cannot be deduced from the passage.

**Answer:-**

**74. (d)**

Both the statements cannot be inferred from the passage. The passage mentions achievements in various states of U.S. but does not comment on achievement in India. Also,

the pioneering effort in India is mentioned but nothing in the passage tells us when the research started or if it is still going on or if India is yet to be successful in this endeavor.

**Answer:-**

**75. (d)**

The passage talks about the industry falling behind the target on the job front. Hence, the correct answer is option (d), i.e. employment.

**Answer:-**

**76. (d)**

The last paragraph states that the Auto Mission Plan of the government estimated that the industry would employ a certain number of workers. This shows that the Government has definitely made plans about the Auto Industry and hence is neither unconcerned about it nor ignoring it. Statement 2 is also not correct as there is no information in the passage that suggests it. Hence, the correct answer is option (d).

**Answer:-**

**77. (b)**

Options (a) and (c) are mentioned in the passage. Option (b) is not a reason because a decline in sales will result in decrease in profits or increase in losses, and not decrease in losses. Hence, it is the correct answer.

**Answer:-**

**78. (d)**

Refer to the following sentence from the first paragraph of the passage, “it was widely expected that the Government of India would treat it as a national catastrophe”. There is a difference between giving national importance to a catastrophe and an actual national catastrophe. So, statement 1 does not follow. Statement 2 also does not follow because the passage states that the government set Warren Anderson free. So, we cannot conclude that Warren Anderson was responsible for the disaster. The passage suggests that the government did not do enough for the Bhopal gas disaster victims. From this, we cannot conclude that the government was insensitive to the victims. Hence, statement 3 is also incorrect, making option (d) the correct answer.

**Answer:-**

**79. (d)**

Option (a) is incorrect because the second paragraph of the passage states that the government did not protect the survivors from ambulance-chasing lawyers who descended upon Bhopal. Option (b) is false because although Anderson was arrested, we cannot conclude that the government got him arrested. Option (c) is incorrect because the passage only states that the Indian diplomats did not change India’s foreign investment policy despite the disaster. We cannot conclude whether they sympathized or did not sympathize with the victims of the disaster. Hence, option (d) is the correct answer.

**Answer:-**

**80. (b)**

Although statement 1 is factually true, it is not related to legal justice. Statement 2 is true because the passage states that the government imposed a terrible settlement of

Rs. 25000 compensation upon the survivors for the lifetime of damages they had to suffer. Statement 3 is true because the passage states that the government became a mute spectator to the theft of valuable medical evidence from the victims by the ambulance-chasing lawyers.

**Answer:-**

**81. (a)**

Statement 1 is true because the passage states that a compensation of Rs. 25000 was a terrible compromise the victims were imposed to accept “for a lifetime of suffering through damage to their lungs, liver, kidneys and the immune system”. Statement 2 is false because the passage describes Madhya Pradesh’s medical infrastructure as ‘pitiabile’. Statement 3 is false because to say that the victims were robbed of justice is not the same as saying that they were made to beg for justice. Hence, option (a) is the correct answer.

**Answer:-**

**82. (c)**

Running the hospital refers to the management and the management of hospitals in MP cannot be concluded to be quacks. The passage states that the victims were handed over to quacks in Madhya Pradesh. This reference indicates that the doctors in the Madhya Pradesh hospitals were not capable of providing good medical care and does not question the credibility of the management. So, statement 1 cannot be concluded. Statement 2 also cannot be inferred because there is no reference to the location of the gas disaster, except that it happened in Bhopal. Statement 3 can be inferred from the following sentence in the first paragraph, “Instead of launching a national-level medical treatment programme with the best available professional help, which could have saved hundreds of lives and relieved much acute suffering ...”. So, the correct answer is option (c).

**Answer:-**

**83. (d)**

The author clearly mentions in the passage that the worker is estranged from the products of the labor, from the process of production, from his own humanity, from other human beings and from the capitalist which causes a hostile relationship to exist between the two.

**Answer:-**

**84. (a)**

The passage revolves around the demerits of the capitalist mode of production. The passage talks about how the worker is estranged from the products of labor which he views as a means of his survival, not as an extension of his self worth. The worker is also alienated from the process of production and from his own humanity. The worker is estranged from other human beings, which includes the capitalist as the capitalist has expropriated the products of labor. Hence, option (a) is the correct answer. Option (b) is negated because the passage states that worker does not derive any personal satisfaction from his work. Option (c) is incorrect because there is no mention of family in the passage. Option (d) is also irrelevant as the passage does not talk about the basic needs of a worker.

**Answer:-**

**85. (c)**

Both the assumptions are correct. Statement 1 is correct because it is mentioned in the passage “estranged from the production process, the worker is therefore also estranged from

his or her own humanity, since the transformation of nature into useful objects is one of the fundamental facets of the human condition...” Statement 2 is given in the first few lines of the passage “the worker approaches work only as a means of survival and derives none of the other personal satisfactions of work because the products of his labor do not belong to him...”

**Answer:-**

**86. (b)**

The sitting arrangement is shown below:



Hence, Etiyat is sitting to the immediate left of Dhruv.

**Answer:-**

**87. (c)**

Let the weight of S3 be 'x'.

Weight of S2 = 4.5x

Weight of S1 = 9x

Weight of S5 is more than 4.5x but less than 9x. Hence, the weight of S4 is more than 2.25x and less than 4.5x.

The following is the order of the ball in ascending order of their weights.

$S_3 < S_4 < S_2 < S_5 < S_1$

For questions 15 to 17: The given information can be tabulated as follows:

	English	Hindi	Bengali	French	German	Tamil
Anil	√	√	√			
Billu	√	√	√			√
Champa		√	√			
Deepak			√	√	√	
Ferhan			√			
Ganga				√	√	√

**Answer:-**

**88. (d)**

**Answer:-**

**89. (a)**

**Answer:-**

90. (a)

For question 91 to 94: The given information can be summarized as:

Day	Mock
Monday	CAT
Tuesday	CSAT
Wednesday	JMAT
Thursday	CLAT
Friday	CMAT
Saturday	NMAT

**Answer:-**

91. (d)

**Answer:-**

92. (d)

CLAT was conducted two days after CSAT. Hence, the value of X is 2.

**Answer:-**

93. (b)

**Answer:-**

94. (b)

**Answer:-**

95. (a)

The order of the ages of the five persons is:

Rahul > Tina > Uma > Parul > Sumit

The possible orders of the heights of the five persons are: Sumit > Parul > Rahul > Tina > Uma

or

Parul > Sumit > Rahul > Tina > Uma

**Answer:-**

96. (a)

The number of toffees =

$$1.2 \times \left[ \frac{15/30}{0.96} \right] = 8$$

**Answer:-**

97. (d)

Option (d) can be inferred from the line “It seems some Western commentators never tire of speculating about how this may give rise to more Western-style liberal democracies...” wherein ‘this’ refers to the rise of the new classes. Option (a) is clearly incorrect. Though, the passage does say that the consuming classes of Asia are diverse and fragmented, but from this line, it cannot be concluded that the ‘most diverse’ consuming classes are to be found in Asia. Option (b) is out of scope, as the passage does not talk about a change in attitude of the elites and option (c) is also incorrect because nowhere in the passage have the consuming classes of the West been mentioned. Hence, option (d) is the correct answer.

**Answer:-**

**98. (a)**

Statement (1) can be inferred from the line “they can ... have a somewhat transformative effect on governance.” wherein, ‘they’ refers to the consuming classes. The second paragraph of the passage talks about the waste that is produced by a city and in this context says that “much of it (is) the result of household consumption.” From here, it cannot be concluded if the amount of waste in a city is dependent on its number of houses. The passage simply states that household consumption is responsible for producing majority of the waste in a city. However, whether an increase in the number of houses will increase the amount of waste, cannot be inferred from the passage. Therefore, option (a) is the correct answer.

**Answer:-**

**99. (a)**

Statement (1) is correct. The passage clearly says that in the early stages of industrialization, the pollution level of a city steadily increases but once environmental laws and methods of control are put in place, then, the effect of industrialization on pollution reduces. Therefore, this makes it clear that pollution is dependent on how industrially developed a country is. Statement (2) is correct as it can be inferred from the line - “The metabolism of a city produces vast amounts of waste, much of it the result of household consumption.” Statement (3) is incorrect because the sentence takes into account all the Asian countries whereas, in the passage, it is stated that the “UN report suggests that the rate of pollution in many of them is lower than it was in Western countries”, where ‘them’ refers to the Asian countries. Therefore, option (a) is the correct answer.

**Answer:-**

**100.(c)**

It is clearly stated at the end of the passage that “a 2007 UN Environmental Programme report suggests that the rate of pollution in many of them is lower than it was in Western countries at similar levels of industrialization.”, wherein ‘them’ refers to Asian countries. Hence, from this sentence, it can be understood that the contention that Asian countries produce more pollution is not completely true according to the UN report. Therefore, option (c) is the correct answer. Options (a) and (d) are beyond the scope of the passage and option (b) can be negated on the basis of the word ‘solely’.