Q.1) Consider the following statements with regards to Sangam Literature:

- 1. Sangam literature dealt both with personal lives such as love and relationships as well as ethics, heroism, values and social customs.
- 2. Both men and women poets composed Sangam literature.
- 3. The term muvendar was used in sangam poems which means the heads of ruling families.

Which of the statements given above are correct?

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2 and 3

Q.1) Solution (d)

Explanation:

- Sangam Poems falls into two categories: the 'inner field' (Agam), and the 'outer field'(Puram) as described even in the first available Tamil grammar book Tolkappiyam.
 - The 'inner field' topics refer to personal or human aspects, such as love and sexual relationships, and are dealt with in a metaphorical and abstract manner.
 - The 'outer field' topics discuss all other aspects of human experience such as heroism, valour, ethics, benevolence, philanthropy, social life, and customs. (Hence statement 1 is correct)
- The poems belonging to the Sangam literature were composed by Tamil poets, both men and women, from various professions and classes of society. Women had respect and were allowed intellectual pursuits. There were women poets like Avvaiyar, Nachchellaiyar, and Kakkaipadiniyar who flourished and contributed to Tamil literature. (Hence statement 2 is correct)
- These poems were later collected into various anthologies, edited, and with colophons added by anthologists and annotators around 1000 AD.
- Muvendar is a Tamil word mentioned in Sangam poems meaning three chiefs; used for the heads of three ruling families, the Cholas, Cheras and Pandyas. (Hence statement 3 is correct)

Q.2) Consider the following statements with reference to Mudras of Buddhism:

- 1. Dhyana Mudra is also called Samadhi, in which both the hands of the Buddha are on his lap facing upwards.
- 2. Bhumisparsha Mudra was exhibited by Buddha while preaching the first sermon.
- 3. The Abhaya Mudra signifies fearlessness and symbolises strength and energy security.

Which of the statements given above is/ are correct?

- a) 1 and 2 only
- b) 3 only
- c) 2 and 3 only
- d) 1 and 3 only

Q.2) Solution (d)

Explanation:

- The Dhyana mudra is the gesture of meditation and of the concentration of the Good Law. In this mudra, two hands are placed on the lap, right hand on left hand with fingers fully stretched and palms facing upwards. It is also called samadhi. (Hence statement 1 is correct)
- Dharmachakra Mudra was exhibited by Lord Buddha while preaching the first sermon. (Hence statement 2 is incorrect)
- Abhaya mudra is used to dispel fear and develop courage, highlighted by the name abhaya which is Sanskrit for "fearlessness." (Mudra of no-fear) represents protection, peace, benevolence, and dispelling of fear. (Hence statement 3 is correct)
- Bhumisparsha mudra, formed with all five fingers of the right hand extended to touch the ground, symbolizes the **Buddha's enlightenment under the Bodhi tree**, when he summoned the earth goddess, Sthavara, to bear witness to his attainment of enlightenment.

Q.3) What does the term 'Upasampada' signify in Buddhism?

- a) Religious merit amassed from the Buddhist order.
- b) Property attached to a Buddhist monastery.
- c) Initial conversion to Buddhism.
- d) Final stage of initiation of a Buddhist monk.

Q.3) Solution: c)

Explanation:

- Upasampada, Buddhist rite of higher ordination, by which a novice becomes a monk, or bhikhu. Ordination is not necessarily permanent and in some countries may be repeated in a monk's lifetime. It is an initial conversion to Buddhism.
- A candidate for ordination must be at least 20 years old, have the permission of his parents, be exempt from military service, be free from debt and from contagious disease, and have received at least some elementary instruction in Buddhism. (Hence option c) is correct answer)

Q.4) Consider the following statements with respect to teachings of Mahavira:

- 1. Mahavira regarded all objects have souls and advocated a very holy and ethical code of life.
- 2. He preached that work is worship and encouraged the practice of agriculture.

Which of the statement(s) given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.4) Solution (a)

Explanation:

- Mahavira regarded all objects, both animate and inanimate, have souls and various degrees of consciousness. They possess life and feel pain when they are injured. (Hence statement 1 is correct)
- Even the practice of agriculture was considered sinful as it causes injury to the earth, worms and animals. (Hence statement 2 is incorrect)

Q.5) Consider the following statements:

- 1. Mahavira organized Sanghas to spread his teachings and admitted both men and women in the sangha.
- 2. The First Jain Council was organized in Vaishali and Bhadrabahu presided over the council.
- 3. The Second Jain Council was convened at Valabhi and here the final compilation of Jain literature took place.

Which of the statements given above are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Q.5) Solution (c)

Explanation:

- Mahavira organized the Sangha to spread his teachings. He admitted both men and women in the Sangha. It consisted of both monks and lay men. The rapid spread of Jainism was due to the dedicated work of the members of the Sangha. (Hence statement 1 is correct)
- The First Jain Council was organized in Pataliputra and the chief patron was Chandragupta Maurya. It was organized in 300 BC and **Sthulabhadra** presided over the council. (Hence statement 2 is incorrect)
- The second council was held simultaneously at Mathura (now in Uttar Pradesh, India) under auspices of Skandila and at Vallabhi (now in Gujarat, India) under auspices of Nagarjuna to continue the transmission of sacred knowledge after famines. The final compilation of Jain literature called Twelve Angas was completed in this council. (Hence statement 3 is correct)

Q.6) Consider the following statements about 'Reclining Buddha':

- 1. It represents the Buddha during his last illness about to attain Parinirvana.
- 2. It is an iconographic representation meant to show that all beings have the potential to be awakened and be released from the cycle of death and rebirth.
- 3. It was first depicted in the Gandhara School of Art and peaked during Kushana Period.

4. In this, Buddha is shown as lying on his right side, his head resting on a cushion or on his right elbow.

Which of the statements given above are correct?

- a) 1, 2 and 3 only
- b) 1, 3 and 4 only
- c) 1, 2 and 4 only
- d) 1, 2, 3 and 4

Q.6) Solution (d)

Explanation:

- A Reclining Buddha statue or image represents the Buddha during his last illness, about to enter Parinirvana (483 BC), the stage of great salvation after death that can only be attained by enlightened souls. (Hence statement 1 is correct)
- This popular iconographic depiction shows that all beings can be awakened and be released from the cycle of death and rebirth. (Hence statement 2 is correct)
- It was first depicted in Gandhara art, which began in the period between 50 BC and 75 AD and peaked during the Kushana period from the 1st to 5th centuries AD. (Hence statement 3 is correct)
- Statues and images of the Reclining Buddha show him lying on his right side, his head resting on a cushion or relying on his right elbow, supporting his head with his hand. (Hence statement 4 is correct)
- The World's largest Reclining Buddha is the 600-foot Winsein Tawya Buddha built in 1992 in Mawlamyine, Myanmar.
- India's largest Reclining Buddha to be installed at the Buddha International Welfare Mission temple, Bodh Gaya was delayed due to Covid-19 pandemic.

Q.7) Consider the following statements with respect to Sects of Buddhism:

- 1. Hinayana sect does not believe in idol worship whereas practice of image worship can be found in Mahayana sect.
- 2. Hinayana believes in universal liberation whereas Mahayana believes in individual salvation.
- 3. Scriptures of Hinayana were written in Pali, whereas Scriptures of Mahayana were written in Sanskrit.

Which of the statements given above are correct?

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) 1, 2 and 3

Q.7) Solution (b)

Explanation:

- The Hinayana sect, meaning 'Small Vehicle' in Sanskrit, did not believe in the divinity of the Buddha and also not believed in Idol worship, whereas the Mahayana sect, which means 'Great Vehicle' in Sanskrit, believed in the divinity of the Buddha. The sect encouraged idol worship in Buddhism. (Hence statement 1 is correct)
- The Hinayana sect, believed in Individual Salvation through self-discipline and meditation, Ultimate aim of Hinayana is thus nirvana, whereas the Mahayana sect believed in Universal liberation from suffering for all beings, believed in the divinity of the Buddha, heavenliness of Buddha and Bodhisattvas embodying Buddha Nature. Ultimate aim of Mahayana is 'spiritual upliftment'. (Hence statement 2 is incorrect)
- Hinayana Buddhism scriptures have been composed in Pali Language whereas Mahayana Buddhism scriptures in Sanskrit Language. (Hence statement 3 is correct)

Q.8) Which of the following is the correct explanation of the term 'Bodhisatta'?

- a) A person who achieved salvation/nibanna by following the original concept of Buddhism.
- b) A compassionate being who accumulated merit and helped others instead of attaining nibanna.
- c) A person who followed the Hinayana sect of Buddhism.
- d) All of the above

Q.8) Solution (b)

Explanation:

Bodhisattvas are enlightened beings who have put off entering paradise in order to help others attain enlightenment. There are many different Bodhisattvas, but the most famous in China is

Avalokitesvara, known in Chinese as Guanyin. Bodhisattvas are usually depicted as less austere or inward than the Buddha. Bodhisattas were perceived as deeply compassionate beings who accumulated merit through their efforts but used this not to attain nibbana and thereby abandon the world, but to help others. (Hence option b) is correct answer)

Q.9) Arrange the following major texts in a chronological order

- 1. Ashtadhyayi of Panini
- 2. Tamil Sangam Literature
- 3. Natyashastra of Bharata
- 4. Compilation of Jaina Works

Choose the correct option

- a) 1-2-3-4
- b) 2-1-3-4
- c) 1-2-4-3
- d) 2-1-4-3

Q.9) Solution (a)

Explanation:

- 500 BCE Ashtadhyayi of Panini, a work on Sanskrit grammar
- 200 BCE 200 CE Tamil Sangam Literature
- 300 CE Natyashastra of Bharata, a work on dramaturgy in Sanskrit
- 400 500 CE Compilation of Jaina works in Prakrit at Vallabi.

Q.10) Consider the following statements about the Ajivika sect:

- 1. It was founded by Ananda.
- 2. It was an unorthodox sect which emerged at the same time as the rise of Buddhism and Jainism.
- 3. They practiced complete nudity.
- 4. They believed in Niyati or destiny and discarded the Karma doctrine.

Which of the statements given above are correct?

- a) 1, 2 and 3 only
- b) 2 and 4 only
- c) 2, 3 and 4 only
- d) 1, 2, 3 and 4

Q.10) Solution (c)

Explanation:

- It was founded by Goshala Maskariputra (also called Gosala Makkhaliputta), (He is considered to be friends with Mahavira) (Hence statement 1 is incorrect)
- The Ajivika was an unorthodox sect which emerged at the same time as the rise of Buddhism and Jainism. (Hence statement 2 is correct)
- The sect was founded by Gosala Maskariputra in the 5th century BC.
- Ajivikas led a simple ascetic life, without clothes and any material possession. They practiced complete nudity. (Hence statement 3 is correct)
- The school revolves around the **Niyati (destiny) doctrine** of absolute determinism. It believes that there is no free will and whatever has happened, is happening, or will happen is entirely pre-ordained or pre-decided and is based on cosmic principles. **Hence there was no use of Karma. (Hence statement 4 is correct)**
- They opposed Buddhism and Jainism and were atheists. They did not believe in Karma doctrine, unlike Jainism and Buddhism. They consider Karma a fallacy.
- They also rejected the authority of Vedas like Buddhism and Jainism. However, they believed in the existence of the soul (atman) in every living being like Jainism. But they believed in the existence of the soul in a material form whereas Jainism propounds formless soul.

Q.11) Consider the following with respect to Bhakti movement:

- 1. It promoted the growth of regional languages.
- 2. It also contributed to the development of music, dance, and literature in India.
- 3. It had the support from the orthodox and royal classes of the society.
- 4. It promoted Improvement of social relationship between the Hindus and Muslims.

Which of the above are correct?

a) 1, 3 and 4 only

- b) 1, 2, and 4 only
- c) 1 and 4 only
- d) 1, 2, 3 and 4

Q.11) Solution (b)

Explanation:

Significance of Bhakthi movement

- It promoted the growth of regional languages. (Hence statement 1 is correct)
- It initiated the reform process in major religions to get rid of its social practices.
- It created a platform for unification of India under national consciousness.
- It also contributed to the development of music, dance, literature in India. (Hence statement 2 is correct)
- It faced stern opposition from orthodox classes in the society, and persecution by royal classes. (Hence statement 3 is incorrect)
- It created a positive environment for emancipation of the vulnerable sections in the society.
- Improvement in the social relation between the Hindus and Muslims. (Hence statement 4 is correct)
- Promotion of social service.

Q.12) Which of the following defines the 'Doctrine of Fanaa' of the Sufi mystiques?

- a) Inflaming the fire of love to achieve ecstasy.
- b) Communication with god.
- c) Transcendental meditation to achieve God.
- d) Annihilation of human attributes through union with God.

Q.12) Solution (d)

Explanation:

Doctrine of Fanaa

• Fanaa in Sufism is the "passing away" or "annihilation" (of the self).

- Fanaa means 'to die before one dies', a concept highlighted by famous notable Persian mystics such as Rumi and later by Sultan Bahoo.
- Early interpretation of Fana was recognition of the will of God, or the abandonment of being conscious of one's self, replacing this with contemplation on God alone
- Later interpretation is that of Fana as being united with the One or the Truth, in what some contend as in a "Hindu fashion".(Hence option d) is correct answer)

Q.13) Consider the following statements regarding Bhakti saint Ramanuja:

- 1. He preached the doctrine of Visishtadvaita in the 12th century.
- 2. According to him, God is Nirgunabrahman.
- 3. He encouraged Prabattimarga or path of self-surrender to God.
- 4. He invited the downtrodden to Vaishnavism.

Which of the Statements given above are correct?

- a) 2, 3 and 4 only
- b) 1, 3 and 4 only
- c) 1, 2 and 4 only
- d) 1, 2, 3 and 4

Q.13) Solution (b)

Explanation:

- In the 12th century, Ramanuja, who was born at Sriperumbudur near modern Chennai, preached Visishtadvaita. (Hence statement 1 is correct)
- According to him God is Sagunabrahman. The creative process and all the objects in creation are real but not illusory as was held by Sankaracharya. Therefore, God, soul, matter are real. But God is inner substance and the rest are his attributes. (Hence statement 2 is incorrect)
- He also advocated prabattimarga or path of self-surrender to God. (Hence statement 3 is correct)
- He invited the downtrodden to Vaishnavism and advocated salvation by Bhakti. (Hence statement 4 is correct)

Q.14) Consider the following statements with respect to Sikhism:

- a) Sikhism is derived from nirguna branch of Bhakti movement.
- b) Orthodox Sikhs believe that their religion was revealed by God to Guru Gobind Singh.
- c) Ranjit Singh gave the standardized script of Gurmukhi in which Adi Granth was first written.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Q.14) Solution (a)

Explanation:

- The seeds for the birth and growth of this religion were present in the Bhakti movement, in its **nirguna** branch. The Sikhs basically believe in a formless God, equality of all mankind, need of a **guru** and the **pahul** tradition. (Hence statement 1 is correct)
- The orthodox Sikhs believe that their religion was revealed by God to Guru Nanak, whose spirit entered the second and the subsequent guru still the tenth Guru. Guru Gobind Singh, ordained the Sikhs to treat the Adi Granth, popularly known as the Guru Granth Sahib, as their Guru. (Hence statement 2 is incorrect)
- The fifth guru, Guru Arjun Dev (not Ranjit Singh), gave the Sikhs three things. The first
 was in the shape of the Adi Granth, which contains the sayings of five gurus and other
 allied saints. The second was the standardised script for Gurmukhi in which the
 AdiGranth was first written. And finally, the site and the foundation of the Har Mandir
 sahib or the Golden Temple and the Akal Takht at Amritsar, the highest seat from where
 the dictats for the entire Sikh community are issued. (Hence statement 3 is incorrect)

Q.15) Consider the following statements about the Alvars and Nayanars:

- 1. They led the Bhakti movement in the Southern part of India.
- 2. Both of them were devotees of Lord Vishnu.
- 3. They worked at the grass root levels and completely distanced themselves from Shrines and Temples.

4. The Nalayira Divyaprabandham was composed by the Alvars.

Which of the statements given above are correct?

- a) 1, 2 and 3 only
- b) 1 and 2 only
- c) 1 and 4 only
- d) 1, 2, 3 and 4

Q.15) Solution (c)

Explanation:

- The Alvars and Nayanars were some of the earliest proponents of bhakti movement (c. sixth century) of Tamil Nadu. (Hence statement 1 is correct)
- Nayanars were devoted to Lord Shiva and his avatars, whereas Alvars were devoted to Lord Vishnu and his avatars. They travelled from place to place singing hymns in Tamil in praise of their gods. (Hence statement 2 is incorrect)
- During their travels, the Alvars and Nayanars identified certain shrines as abodes of their chosen deities. Very often large temples were later built at these sacred places. These developed as centers of pilgrimage. Singing compositions of these poet-saints became part of temple rituals in these shrines, as did worship of the saints'images. (Hence statement 3 is incorrect)
- The Nalayira Divyaprabandham is one of the major anthologies of compositions by the Alvars. It was frequently described as the Tamil Veda, thus claiming that the text was as significant as the four Vedas in Sanskrit that were cherished by the Brahmanas. (Hence statement 4 is correct)

Q.16) Consider the following statements about saints from Medieval India:

- 1. Ramanuja taught in South while his disciple Ramananda taught in North India.
- 2. Sadhna and Sena were followers of Ramananda.
- 3. Chaitanya Mahaprabhu, a Brahman saint from Bengal was a devotee of Lord Krishna.

Which of the statements given above are correct?

- a) 1 and 2 only
- b) 2 and 3 only

- c) 1 and 3 only
- d) 1, 2 and 3

Q.16) Solution (d)

Explanation:

- Ramanuja was from the South and he taught in the language of the common people. His disciple was Ramananda who took his Guru's message to the northern parts of India. (Hence statement 1 is correct)
- The followers of Ramananda belonged to diferent walks of life. For example, Kabir was a weaver, Sadhana was a butcher, Ravidasa was a cobbler and Sena was a barber. (Hence statement 2 is correct)
- Chaitanya was a saint from Bengal. He was a devotee of Lord Krishna. Though he was a Brahman he condemned the caste system and emphasized on the equality of all. He wanted the people to know that true worship lay in love and devotion. He used to go into a trance singing devotional songs in praise of Lord Krishna. (Hence statement 3 is correct)

Q.17) Consider the following statements about Sufism:

- 1. Sufis rejected outward religiosity and emphasized love and devotion to God and compassion towards all fellow human beings.
- 2. The Sufis accepted the elaborate rituals and codes of behavior demanded by Muslim religious scholars.
- 3. The Sufis composed poems expressing their feelings, and a rich literature in prose developed around them.

Which of the statements given above are correct?

- a) 1 and 3 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

Q.17) Solution (a)

Explanation:

- The Saints had much in common with the Sufis, so much so that it is believed that they
 adopted many ideas of each other. Sufis were Muslim mystics. They rejected outward
 religiosity and emphasized love and devotion to God and compassion towards all fellow
 human beings. (Hence statement 1 is correct)
- The Sufis often rejected the elaborate rituals and codes of behavior demanded by Muslim religious scholars. They sought union with God much as a lover seeks his beloved with a disregard for the world. (Hence statement 2 is incorrect)
- Like the saint-poets, the Sufis too composed poems expressing their feelings, and a rich literature in prose, including anecdotes and fables, developed around them. (Hence statement 3 is correct)

Q.18) Consider the following statements with reference to Samkhya Philosophy:

- 1. This philosophy believes that presence of God is essential to the creation of the world.
- 2. The philosophy remained spiritualistic throughout its evolution.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.18) Solution (d)

Explanation:

- Samkhya, literally meaning 'count', seems to have originated first.
- According to the early Samkhya philosophy, the presence of divine agency is not essential to the creation of the world. The world owes its creation and evolution more to Nature or prakriti than to God. (Hence statement 1 is incorrect)
- This was a rational and scientific view. Around the fourth century AD, in addition to prakriti, purusha or spirit was introduced as an element in the Samkhya system, and the creation of the world was attributed to both. According to the new view, Nature and the spiritual element together create the world. Thus, at the outset the Samkhya School of

philosophy was materialistic, but later it tended to become spiritualistic. (Hence statement 2 is incorrect)

Q.19) Consider the following statements with respect to Science and Technology during Gupta period:

- 1. Aryabhatta was the author of Aryabhattiyam, which deals with astronomy and horoscopy.
- 2. Varahamihira was the author of Panchasiddhantika, which addresses five schools of astronomy.
- 3. Bramhagupta calculated the value of pi (π) to be 3.1416.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 2 only
- d) 1 and 3 only

Q.19) Solution (c)

Explanation:

Science and Technology during Gupta period

- In A.D. 499, Aryabhatta was the first astronomer to pose the more fundamental astronomical problems. It was largely due to his efforts that astronomy was recognised as a distinct discipline from mathematics.
- Aryabhatta calculated pi (π) to be 3.1416 and the length of the solar year to be 365.3586805 days, both of which are remarkably close to recent estimates. (Hence statement 3 is incorrect)
- Aryabhatta believed that the earth was a sphere that rotated on its axis, and that eclipses were caused by the earth's shadow falling on the moon. He is also the author of Aryabhattiyam, which deals with algebra, arithmetic, and geometry. (Hence statement 1 is incorrect)
- Varahamihira, who lived near the end of the fifth century, wrote several treatises on astronomy and horoscopy. His Panchasiddhantika addresses five schools of astronomy, two of which reflect a thorough understanding of Greek astronomy. His other major works include the Laghu-Jataka, BrihatJataka, and Brihat Samhita. (Hence statement 2 is correct)

• In A.D 628, Brahmagupta was the first mathematician to provide the formula for the area of a cyclic quadrilateral. His contributions to geometry are significant. He is the first person to discuss the method of finding a cyclic quadrilateral with rational sides.

Q.20) Consider the following statements with respect to Kalidasa:

- 1. Kalidasa lived in the 4th century AD and was a contemporary of Chandragupta-II.
- 2. Malavikagnimitram is a Sanskrit play about the love romance of king Chandragupta-II and a woman servant named Malvika.
- 3. Vikramorvasiyam is a Sanskrit drama representing king Vikramaditya's attributes.
- 4. Kumarasambhava is poem which depicts the birth of Kumara gupta and his coronation.

Which of the statements given above are correct?

- a) 1 and 3 only
- b) 2 and 4 only
- c) 1, 2 and 3 only
- d) 1 and 4 only

Q.20) Solution (a)

Explanation:

Kaviratna Kalidasa

- The Kavya showcases the genuine beauty and majesty of Gupta Era literature. Kalidasa, who lived in the 4th century AD and was a contemporary of Chandragupta-II, is the most famous of all the names. Ritusamhara was his mini-epic or long poem; however, Malvikagnimitram was a drama. In Sanskrit literature, Meghaduta is a kavya. (Hence statement 1 is correct)
- Malavikagnimitram: It's a Sanskrit play about the love romance of Sunga king Agnimitra and a woman servant named Malvika. The Rajya Yajna performed by Pushyamitra Sunga is also mentioned in this drama. (Hence statement 2 is incorrect)
- **Abhijnanasakuntalam:** Dushyanta, king of Hastinapur, and Shakuntala, daughter of the sage Vishwamitra and the apsara Menaka, are depicted in this Sanskrit play.
- Vikramorvasiyam: It's a Sanskrit drama about Puruvas, a Vedic king, and Urvashi's love tale. Puruvas was chosen to represent Chandragupta Vikramaditya's attributes. (Hence statement 3 is correct)

- Kumarasambhava: The epic poem Kumrasambhava depicts the birth of Kartikeya, the son of Shiva and Parvati. (Hence statement 4 is incorrect)
- Meghaduta: Meghaduta translates to "Cloud Messenger."At Mount Kalidasa, his wife is waiting for him. Kubera exiled the Yaksha somewhere in central India, and he sought to communicate with his wife. He accomplishes this by persuading a cloud to accept his message and deliver it to his wife. The poem describes the lovely views and sensory experiences he will encounter while travelling north to deliver this message to his bride.

Q.21) Consider the following statements with respect to World Heritage Glaciers

- 1. UNESCO World Heritage sites are home to glaciers representing almost 10% of the Earth's total glacierized area
- 2. The Khumbu Glacier in Mount Kangchenjunga is part of the world's highest glacier system

Select the correct statement(s)?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.21) Solution (a)

Explanation:

- 50 UNESCO World Heritage sites are home to glaciers representing almost 10% of the Earth's total glacierized area. They include the highest (next to Mt. Everest), the longest (in Alaska), and the last remaining glaciers in Africa, amongst others, giving a representative overview of the general situation of glaciers in the world.
- The **Khumbu Glacier located in the Mount Everest base camp** in Sagarmatha National Park (Nepal), is part of the world's highest glacier system.

Source: <u>CLICK HERE</u>

Q.22) With reference to 'Shilp Guru Awards', consider the following statements

- 1. The Shilp Guru Awards are given to legendary master craftspersons for the role played by them in the continuance of crafts as a vital part of traditional heritage
- 2. These Awards will be conferred every year by the Ministry of Culture
- 3. These awards were instituted in 2022 as part of Azadi ka Amrit Mahotsav

Choose the correct answer using the code given below

- a) 1 only
- b) 1 and 2 only
- c) 1 and 3 only
- d) 2 and 3 only

Q.22) Solution (a)

Explanation:

- The Shilp Guru Awards are given to legendary master craftspersons in recognition of excellent craftsmanship, product excellence and the role played by them as gurus in the continuance of crafts to other trainee artisans as a vital part of traditional heritage.
- The Office of the Development Commissioner (Handicrafts) has been implementing the scheme of National Awards for master craftspersons since 1965 and Shilp Guru Awards was introduced in 2002. It is an **office under the Ministry of Textiles**
- The Awards were started in 2002, to celebrate the Golden Jubilee of the resurgence of Handicrafts in India.

Source: CLICK HERE

Q.23) Consider the following statements with respect to 'Mother Tongue Survey of India'

- 1. It is a comprehensive survey which documents the mother tongue of all the citizens of the country
- 2. The survey was carried out by the Ministry of Home Affairs

Select the correct statement(s)

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.23) Solution (b)

Explanation:

- The Mother Tongue Survey of India is a project **that surveys the mother tongues which are returned consistently across two and more Census decades**. It also documents the linguistic features of the selected languages.
- It was recently **completed by the Ministry of Home Affairs**. The report states that the NIC and the National Film Development Corporation (NFDC) will be documenting and preserving the linguistic data of the surveyed mother tongues in audio-video files.

Source: CLICK HERE

Q.24) With reference to 'Low-Earth Orbit Flight Test of an Inflatable Decelerator (LOFTID) Technology', consider the following statements

- 1. It is an initiative of ISRO in collaboration with Russia's ROSCOSMOS for Mission Gaganyaan
- 2. It could potentially be used for bringing back rocket assets after they are launched
- 3. It creates more aerodynamic drag which helps in slowing down the spacecraft.

Choose the correct answer using the code given below

- a) 1 and 2 only
- b) 1 and 3 only
- c) 2 and 3 only
- d) All the above

Q.24) Solution (c)

Explanation:

- LOFTID mission is a partnership between NASA's Space Technology Mission Directorate and United Launch Alliance (ULA).
- It could **potentially be used for bringing back rocket assets** after they are launched. It could be used to bring back massive objects back from Earth's orbit, like items from the International Space Station.
- when a spacecraft or anything else enters a planet's atmosphere, drag acts upon the body and slows it down-converting kinetic energy into heat. The large size of the HIAD device means that it creates more drag and starts the deceleration process higher in the atmosphere than traditional aeroshells.

Source: CLICK HERE

Q.25) 'Apis Karinjodian' seen in news recently is a species of

- a) Butterflies
- b) Honeybees
- c) Amphibians
- d) Orchid

Q.25) Solution (b)

Explanation:

A new species of endemic honeybee named **Apis karinjodian or Indian black honeybee**, has been discovered in the Western Ghats, taking the species of honeybees in the world to 11. The distribution of Apis karinjodian ranges from the central Western Ghats and Nilgiris to the southern Western Ghats, covering the States of Goa, Karnataka, Kerala and Tamil Nadu

Source: CLICK HERE

Q.26) A group of friends sit to play a game of cards. They select a deck of 5 cards (each carrying a distinct number from 6 to 10) to play and is shuffled thoroughly. Two cards are then removed one at time from the deck. What is the probability that the two cards are selected with the number on the first card being one higher than the number on the second card?

cara:

- a) 1/5
- b) 1/4
- c) 2/5
- d) 3/5

Q.26) Solution (a)

Explanation:

You have to select 2 cards from 5.

Since the order in which they are drawn matters,

There are 5P2 = 5!/3! = 20 elementary events from which there are 4 favourable numbers of cases: 10 before 9, 9 before 8, 8 before 7 and 7 before 6.

Hence, probability = 4/20 = 1/5

Q.27) Rajan has 2 baskets A and B that contain Parle and Brittania biscuits. In basket A there are 8 Parle and 10 Brittania biscuits and in basket B there are 8 Parle and 8 Brittania biscuits. One biscuit is taken out from any of these 2 baskets. What is the probability that the biscuit taken out is Brittania?

- a) 19/36
- b) 17/25
- c) 13/27
- d) 19/27

Q.27) Solution (a)

Explanation:

Total biscuits in basket A = 18

Total biscuits in basket b = 16

Probability of selecting Brittania biscuit from basket A = (1/2)*10C1 /18C1 = 5/18

Probability of selecting Brittania biscuit from basket $B = (1/2)^* 8C1 / 16C1 = 1/4$

$$nCr = n! / (n-r)!*r!$$

The probability of taking out Brittania biscuit from any of the 2 bags = 5/18 + 1/4 = 19/36

Q.28) There are 3 bag labeled as bag P, bag Q, and bag R. Only one bag has the gift, the other 2 are empty. Assume that Ramesh picks the bag P, now he will have one third (1/3) of chance to win the gift. If bag Q is opened and is found that it is empty, then what should Ramesh do to win the gift

a) Ramesh should retain the bag P as his winning probability increases to 50%

b) Ramesh should exchange bag P for bag R as his winning probability with bag P reduces

c) Ramesh should retain the bag P as his winning probability increases to 75%

d) None of the above

Q.28) Solution (a)

Explanation:

Given that,

Originally the possibility to win by picking the bag R was one third (1/3). By knowing the fact the bag Q is empty, its chance of having gift is transferred to bag R. so the chance to win gets increased to (1/2).

Q.29) If a dice is thrown twice, what is the probability of not getting a one on either throw?

- a) 1/18
- b) 23/36
- c) 25/36
- d) 29/36

Q.29) Solution (c)

Explanation:

Out of total 36 possible outcomes,

1/6 +5/6*1/6 = 11/36

1/6 you get 1 in first hit , 5/6 * 1/6 you dont get it in first but get a 1 in second hit.

Getting 1 on either draw can happen in 11/36 ways = (1/6 + 1/6 * 5/6)

Reqd. Probability = 1 – (Probability of Getting one on either draw) = 1 - 11 / 36 = 25 / 36

Read the following passage and answer the items that follow. Your answer to these items should be based on the passages only

Passage

A recent study, published in the Proceedings of the National Academy of Sciences, has shown that high-level mathematical reasoning rests on a set of brain areas that do not overlap with the classical left-hemisphere regions involved in verbal semantics. Instead, all domains of mathematics tested (algebra, analysis, geometry, and topology) recruit a bilateral network, of prefrontal, parietal, and inferior temporal regions, which is also activated when mathematicians or non-mathematicians recognize and manipulate numbers mentally. These results suggest that high-level mathematical thinking makes minimal use of language areas and instead recruits

circuits initially involved in space and number. This result may explain why knowledge of number and space, during early childhood, predicts mathematical achievement.

Q.30) Which of the following best captures the central idea of the passage?

- a) High-level mathematical expertise and basic number sense share common roots in a nonlinguistic brain circuit.
- b) Regardless of domain- algebra, analysis, geometry or topology- mathematicians recognize and manipulate numbers mentally.
- c) Classic left-hemisphere regions involved in verbal semantics are not as well developed in mathematicians as the brain areas involving number and space.
- d) The mathematical achievement of an individual can be predicted based on his knowledge of number, space and language during childhood.

Q.30) Solution (a)

Explanation:

Option a - High-level mathematical expertise and basic number sense share common roots in a non-linguistic brain circuit. This option seems to convey all the three key ideas in the paragraph, summarising it well. High level mathematical thinking uses a non-linguistic circuit, and shares common roots with basic number sense.

Option b - Regardless of domain- algebra, analysis, geometry or topology- mathematicians recognizes and manipulates numbers mentally. This is not an idea that features in the paragraph.

Option c - Classic left-hemisphere regions involved in verbal semantics are not as well developed in mathematicians as the brain areas involving number and space. The paragraph does not suggest that mathematicians do not have good language abilities. It merely states that language ability is not required for high level mathematics.

Option d - The mathematical achievement of an individual can be predicted based on his knowledge of number, space and language during childhood. Option d includes language capability along with 'knowledge of number and space' as an indicator of mathematical achievement in adult life, whereas the paragraph clearly states that mathematical achievement is not dependent on language.

So, option a is the best option to summarize the paragraph.