

# AFCAT Memory Based Paper - 13 Feb 2022

## General Awareness

- Q1** Who is the author of the book "The Battle of Belonging"?
- (A) Jai Ratan  
(B) Shashi Tharoor  
(C) Jairam Ramesh  
(D) Kapil Sibal
- Q2** Which of the following was called the 'Magna Carta of Indian Education'?
- (A) Wood's Dispatch  
(B) Hunter Commission  
(C) Macaulay's Minutes  
(D) Charter Act of 1813
- Q3** Which of the following was the first newspaper of India?
- (A) The Calcutta Gazette  
(B) The Bengal Newspaper  
(C) The Bengal Gazette  
(D) The Indian Journal
- Q4** The 'Loor dance' is a traditional folk dance, performed only by women, in the state of:
- (A) Madhya Pradesh (B) Haryana  
(C) Rajasthan (D) Punjab
- Q5** Which among of the following is the most elastic?
- (A) Aluminum (B) Rubber  
(C) Steel (D) Glass
- Q6** Who among the following is the architect of the Central Vista Project?
- (A) Bimal Patel  
(B) Chandrakant Sompura  
(C) Brinda Somaya  
(D) B. V. Doshi
- Q7** Who among the following is **not** associated with the sport of F1 racing?
- (A) Luis Suarez  
(B) Lewis Hamilton  
(C) Charles Leclerc  
(D) Romain Grosjean
- Q8** Who was the first Indian Air Chief to command the Indian Air Force?
- (A) Arjan Singh  
(B) Swaroop Krishna Kaul  
(C) Subroto Mukerjee  
(D) Surinder Mehra
- Q9** Which of the following is an aerobatics demonstration aircraft team of the Indian Air Force?
- (A) Surya Kiran (B) Flying Bullets  
(C) Golden Eagles (D) Sarang
- Q10** India is the largest producer of:
- (A) Lead  
(B) Zinc  
(C) Bauxite  
(D) Mica
- Q11** In January 2022, which of the following launched a special train to commemorate 'Azadi Ka Amrit Mahotsav'?
- (A) Lucknow Metro  
(B) Jaipur Metro  
(C) Hyderabad Metro  
(D) Delhi Metro
- Q12** The International Date Line is
- (A) 0° longitude  
(B) Equator  
(C) 180° longitude  
(D) 90° east longitude
- Q13** Which of the following process widespread the passport services in India?
- (A) POPSK  
(B) FMPSK



- (C) PMPSK  
(D) Jan Dhan Yozna
- Q14** The Lucknow franchise, owned by RPSG Group, of the Indian Premier League will be called?  
(A) Lucknow Super Giants.  
(B) Lucknow Tuskers  
(C) Lucknow Legends  
(D) The Nawabs of Lucknow
- Q15** In Jan 2022, Meta has introduced which of the following world's fastest artificial intelligence supercomputers?  
(A) JUWELS Booster Module  
(B) AI Research SuperCluster (RSC)  
(C) Sunway TaihuLight  
(D) HPC5
- Q16** The 'Global - 500' Award is given for rare achievement in which of the following fields?  
(A) Pollution control  
(B) Population control  
(C) Environment conservation  
(D) Gene preservation
- Q17** Internet-voting was first held in which of the following State?  
(A) Kerala (B) Uttar Pradesh  
(C) Andhra Pradesh (D) Telangana
- Q18** Which of the following does **not** come under Ministry of Defence?  
(A) Department Of Defence Production  
(B) Department Of Border Management  
(C) Defence Research and Development Organisation (DRDO)  
(D) Department Of Ex-servicemen welfare
- Q19** The scientific study of a cell is called:  
(A) taxonomy (B) physiology  
(C) histology (D) cytology
- Q20** Which of the following countries is **not** a member of the 'Quad' group?  
(A) Japan  
(B) Germany  
(C) USA  
(D) Australia
- Q21** Kieron Pollard hit six sixes in an over in a T20 match against which of the following team?  
(A) India  
(B) Pakistan  
(C) Sri Lanka  
(D) Australia
- Q22** Which of the following groups of organic compounds are least likely to be used in making perfumes?  
(A) Carboxylic Acids  
(B) Esters  
(C) Alcohols  
(D) Aldehydes
- Q23** CEO of which of the following companies was awarded Padma Bhushan in 2022?  
(A) Instagram  
(B) Facebook  
(C) Apple  
(D) Google
- Q24** Who among the following has won the Australian Open Women's Singles title in January 2022?  
(A) Serena Williams  
(B) Naomi Osaka  
(C) Ashleigh Barty  
(D) Danielle Collins
- Q25** First "Earth Summit" for "Convention on Biological Diversity" was held at?  
(A) Rio de Janeiro (1992), Brazil  
(B) Johannesburg (2002), S. Africa  
(C) New York (2000), USA  
(D) Dehradun (1992), India



## Answer Key

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Q1 (B)

Q2 (A)

Q3 (C)

Q4 (B)

Q5 (C)

Q6 (A)

Q7 (A)

Q8 (C)

Q9 (A)

Q10 (D)

Q11 (D)

Q12 (C)

Q13 (A)

Q14 (A)

Q15 (B)

Q16 (C)

Q17 (D)

Q18 (B)

Q19 (D)

Q20 (B)

Q21 (C)

Q22 (A)

Q23 (D)

Q24 (C)

Q25 (A)

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## Hints & Solutions

**Q1 Text Solution:****Explanation:**

- **Shashi Tharoor's** latest book "**The Battle of Belonging**" was formally launched at the Prabha Khaitan Foundation's signature event Kitab.
- This is Shashi Tharoor's 22nd book which delves into current social, political and cultural issues confronting India.
- Shashi Tharoor is an Indian former international civil servant, diplomat, bureaucrat, politician, writer, and public intellectual.
- He is currently serving as a third-term Lok Sabha MP.

Hence, the correct answer is option (B).

**Q2 Text Solution:****Explanation:**

- **Wood's Dispatch**, also known as the **Magna Carta** of Indian Education, was a significant educational dispatch introduced in 1854 by Sir Charles Wood, the President of the Board of Control of the East India Company.
- This dispatch laid the foundation for the development of a comprehensive educational system in India.

**Key points of Wood's Dispatch include:**

1. Establishment of a systematic education system with different levels (primary, secondary, and collegiate education).
2. Focus on the establishment of universities and colleges.
3. Encouragement of the use of vernacular languages alongside English in primary education.
4. Emphasis on the training of teachers.
5. The promotion of science, literature, and fine arts in the curriculum.

Hence, the correct answer is option (A).

**Q3 Text Solution:****Explanation:**

- On January 29, 1780, '**Hicky's Bengal Gazette**' began its publication in **Calcutta (now Kolkata), India**.
- It was the **first printed newspaper in India**.
- The newspaper was started by an **Irishman named James Augustus Hicky**.
- Hicky's Bengal Gazette gained attention for its outspoken and critical content regarding the British East India Company's officials and policies, which often led to conflicts with the authorities.
- Despite facing numerous challenges, it played a significant role in the history of journalism in India as one of the pioneering newspapers of its time.

Hence, the correct answer is option (C).

**Q4 Text Solution:****Explanation:**

- The dance "**Loor**" or "**Loor Nach**," which is a traditional folk dance from the Bhangra region of **Haryana, India**.
- The word "Loor" indeed means girl in the local dialect.
- This dance is typically performed during festivals like Holi and other celebratory occasions.
- In the Loor dance, young girls or women participate wearing traditional attire consisting of Ghagra (a long skirt), Kurti (a blouse or top), Chundri (a colorful scarf or dupatta), and Chunda (a type of headgear or headscarf).
- The dance itself is characterized by its lively and vibrant movements, often expressing joy, happiness, and the festive spirit.

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- The dancers form circles or groups and perform rhythmic steps, hand movements, and gestures in sync with the music.
- The dance often involves energetic footwork and graceful movements of the hands and body.
- Loor Nach holds cultural significance in Haryana and is a way for the community to celebrate, express joy, and uphold their traditions during festivals like Holi.

Hence, the correct answer is option (B).

**Q5 Text Solution:**

**Key concept:**

The property of a body, by virtue of which it tends to regain its original size and shape when the applied force is removed, is known as **elasticity** and the deformation caused is known as elastic deformation.

**Young's Modulus** is the ratio of tensile (or compressive) stress ( $\sigma$ ) to the longitudinal strain ( $\epsilon$ ).

**Explanation:**

- With the help of young's modulus of, we can conclude which material has the greatest elasticity.
- Steel is more elastic than copper, brass and aluminium. It is for this reason that steel is preferred in heavy-duty machines and in structural designs. Wood, bone, concrete and glass have rather small Young's moduli.
- Rubber, on the other hand, can be stretched to cause large strains and hence is called elastomer.

Hence, the correct answer is 'C'.

**Q6 Text Solution:**

**Explanation:**

- **Bimal Patel's** HCP Designs had won the consultancy bid for the Central Vista project.
- The Central Vista Redevelopment Project aims to revamp the central administrative area of India located near Raisina Hill, New Delhi,

which was originally designed by Edwin Lutyens and Herbert Baker during British colonial rule.

- The project includes revamping a 3 km long Kartvyapath, converting North and South Blocks into publicly accessible museums, creating a new common Central Secretariat, building a new Parliament building, and converting some older structures into museums.
- The cost of the Central Vista Redevelopment project, including the Common Central Secretariat and the Special Protection Group (SPG) building, is estimated to be around Rs13,450 crore (equivalent to Rs160 billion or US2.0 billion in 2023) spread over four years.
- The Central Vista was first designed by architect Edwin Lutyens and Herbert Baker when the capital of the British Raj was moved from Calcutta to Delhi.
- The Parliament building alone took six years to construct and became the seat of the government after India's independence in 1947.

Hence, the correct answer is option (A).

**Q7 Text Solution:**

**Explanation:**

- Luis Suarez is the star striker of the Uruguayan national soccer(Football) team who went on to play for Ajax and Liverpool before he joined the Spanish giants FC Barcelona.
- **Luis Alberto Suárez Díaz** (Spanish pronunciation: born 24 January 1987) is a Uruguayan professional footballer who plays as a striker for the Uruguay national team.
- Nicknamed "**El Pistolero**" ('The Gunman'), he is regarded as one of the best players of his generation and one of the greatest strikers of all time.



- He has won two European Golden Shoes, an Eredivisie Golden Boot, a Premier League Golden Boot and a Pichichi Trophy, and has scored over 500 career goals for club and country.

Hence, the correct answer is option (A).

**Q8 Text Solution:**

**Explanation:**

- **Air Marshal Subroto Mukerjee.**
- Subroto Mukerjee was the first Indian ever to command a flight and a squadron in the Indian Air Force.
- He later rose in the annals of the Air Force and became the first Indian Chief of the Air Staff of the independent India's Air Force.

Hence, the correct answer is option (C).

**Q9 Text Solution:**

**Explanation:**

- The "**Surya Kiran**" (Sun Rays) is the **Indian Air Force aerobatic display team.**
- The team consisted of nine **BAe Hawk Mk132 aircraft from Bidar Air Base.**
- The **Surya Kiran Aerobatic Team (SKAT)** was formed in **1996 and are a part of the 52nd Squadron of the IAF.**
- The team has since performed numerous demonstrations usually with nine aircraft.
- The squadron was composed of the **HAL HJT-16 Kiran Mk.2 military trainer aircraft till 2011** and were based at the **Bidar Air Force Station in Karnataka.**
- The team was suspended in February 2011 and was re-established with Hawk Mk-132 aircraft in 2015.

Hence, the correct answer is option (A).

**Q10 Text Solution:**

**Explanation:**

- In India, **Andhra Pradesh** is the largest producer of mica.

- **Mica deposits are found in the northern edge of the Chota Nagpur plateau.**
- Koderma Gaya – Hazaribagh belt of Jharkhand is the leading producer.
- In Rajasthan, the major mica producing area is around Ajmer. Nellore mica belt of Andhra Pradesh is also an important producer in the country.

Hence, the correct answer is option (D).

**Q11 Text Solution:**

**Explanation:**

- **Delhi Metro Rail Corporation (DMRC)** launched a specially decorated metro train as part of the 'Azadi Ka Amrit Mahotsav' celebrations, commemorating 75 years of India's Independence.
- The train's exterior is wrapped and decorated with photographs and slogans depicting India's history, culture, and achievements in the last 75 years, symbolizing the spirit of '**Aatmnirbhar Bharat**' (self-reliant India).
- The train will remain in service throughout the commemorative period of 'Azadi Ka Amrit Mahotsav'.
- DMRC has been organizing various activities to celebrate the 'Azadi Ka Amrit Mahotsav' since last year.
- These activities include exhibitions, event corners, display panels, and digital screens at metro stations to disseminate theme-based messages on Indian independence, cultural diaspora, and the journey of evolving India.
- Additionally, online and on-ground activities like Cyclothon, workshops, quizzes, and drawing competitions are being organized to create awareness about public transport, non-motorized transport, environmental benefits, and the history of independent India.

Hence, the correct answer is option (D).

**Q12 Text Solution:**

**Explanation:**



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- The international date line, established in 1884, **passes through the mid-Pacific Ocean and roughly follows a 180 degrees longitude north-south line on the Earth.**
- It is located halfway around the world from the prime meridian — the 0 degrees longitude line in **Greenwich, England.**
- This line generally runs along the 180° longitude, but it can deviate to accommodate geopolitical boundaries and ensure that certain territories or countries remain within the same day.
- When crossing the International Date Line from west to east (or vice versa), there is a change in the calendar day.
- **Moving west across the IDL, you subtract a day, while moving east across it, you add a day.**
- While the 180° longitude is the standard location for the International Date Line, its path is adjusted in certain areas to avoid splitting countries into two separate days and to meet political and practical considerations.

**Hence, the correct answer is option (C).**

**Q13 Text Solution:**

**Explanation:**

- **Post Office Passport Seva Kendra** (lit. 'Post Office Passport Service Center') abbreviated as **POPSK** is an Indian government initiative by the Ministry of External Affairs (MEA) and the Department of Posts (DoP), where the Head Post Offices (HPO) and post offices is being utilized as Post Office Passport Seva Kendra (POPSK) for delivery of passport related services to the citizens of India.
- The purpose of this initiative is to develop passport related services on a bigger scale and to ensure wider area coverage.
- As of November 2019 a total of 424 POPSKs have been made operational in the country.

**Hence, the correct answer is option (A).**

**Q14 Text Solution:**

**Explanation:**

- The new **IPL franchise in Lucknow** will be called **Lucknow Super Giants, as announced by owner Sanjiv Goenka.**
- **Lucknow Super Giants (LSG)** is a professional franchise cricket team based in Lucknow, Uttar Pradesh that competes in the Indian Premier League (IPL).
- Founded in 2021, the team plays its home matches at the BRSABV Ekana Cricket Stadium in Lucknow.

**Hence, the correct answer is option (A).**

**Q15 Text Solution:**

**Explanation:**

- The **AI Research SuperCluster (RSC)** is one of the world's fastest AI supercomputers that will accelerate AI research and help build for the metaverse.
- It will be the fastest AI supercomputer once fully built out in mid-2022.
- RSC will enable the development of new and better AI models, work across multiple languages, and develop augmented reality tools.
- It will help Meta's AI researchers build better AI models that can learn from trillions of examples and seamlessly analyze text, images, and video together.
- The goal of RSC is to pave the way for building technologies for the metaverse, where AI-driven applications and products will play a significant role.

**Hence, the correct answer is option (B).**

**Q16 Text Solution:**

**Explanation:**

- The Global 500 Award is given for achievement in the field of **environmental Conservation.**



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- The Award was launched in 1987 by the United Nations Environment Programme (UNEP) to recognize and honor environmental and humanitarian achievement. Who was recently honoured with V.

Hence, the correct answer is option (C).

**Q17 Text Solution:**

**Explanation:**

- **Telangana government** is ready to initiate the dry run of the country's **first smartphone-based e-voting system** with a dummy election in the Khammam district.
- Voters can register themselves on the smartphone-based application between October 8 and 18, and the dummy voting is to be held on October 20.
- The e-voting system uses Artificial Intelligence for three-factor authentication of valid voters, including name matching with Aadhaar, liveness detection of individuals, and image matching with EPIC Database.
- Blockchain technology is used to secure the de-identified and encrypted votes, ensuring they are maintained as immutable records.
- The 'TSEC eVote' Android app, which will be used for the dry run, is a security-hardened mobile application that prevents tampering and binds a device ID and phone number to a specific citizen registration process, enhancing security

Hence, the correct answer is option (D).

**Q18 Text Solution:**

**Explanation:**

- **Department Of Border Management:**
  - This department is typically under the Ministry of Home Affairs, responsible for formulating and implementing policies related to border security and management of India's international borders.
- **Department Of Defence Production:**

- This department is comes under the Ministry of Defence. It deals with the indigenous production of arms, ammunition, defense equipment, and technological advancements related to defense manufacturing.

- **Department Of Ex-servicemen Welfare:**

- This department is also under the Ministry of Defence. It is responsible for the welfare and well-being of ex-servicemen, including matters related to pensions, rehabilitation, re-employment, and other post-retirement benefits.

- **Defence Research and Development Organisation (DRDO):**

- DRDO is an agency of the Government of India, responsible for the development of technology for military applications. It is under the administrative control of the Ministry of Defence and focuses on research and development in various fields related to defense and security.

Hence, the correct answer is option (B).

**Q19 Text Solution:**

**Explanation:**

1. **Taxonomy** is the science of naming, describing and classification of organisms.
2. **Physiology** is the study of human(animal) body functioning.
3. Study of tissues is called **histology**.
4. Study of cells is called **cytology**.

Hence, the correct option is 'D'.

**Q20 Text Solution:**

**Explanation:**

- The Quad Group is a grouping of India, Japan, the USA, and Australia. Thus, Germany is not a member of the Quad.
- It is a collection of nations, not an alliance, that **want to improve the Indo-Pacific region's rules-based order**.



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- The US, Japan, Australia, and India maintain an informal strategic forum known as the **Quadrilateral Security Dialogue** through semi-regular summit meetings, intelligence sharing, and joint military exercises.

Hence, the correct answer is option (B).

#### Q21 Text Solution:

##### Explanation:

- Kieron Pollard hit six sixes in an over to guide West Indies to a comprehensive four-wicket win against **Sri Lanka** in the first game of their three-match T20 series.
- **About Kieron Pollard:**
- Kieron Adrian Pollard (born 12 May 1987) is a Trinidadian former cricketer, who captained the West Indies cricket team in limited overs cricket.
- He currently plays in various T20 leagues around the globe as an all-rounder.
- He also captains MI Emirates and MI New York in the SA20 and MLC respectively. He was part of the 2012 ICC World T20 winning team for West Indies.

Hence, the correct answer is option (C).

#### Q22 Text Solution:

##### Key concept:

**Esters** are sweet-smelling substances used in making perfumes and as flavouring agents.

##### Explanation:

Carboxylic acid and their derivated are used majorly in the production of polymers, coating, pharmaceutical drugs etc. They are least likely to be used in making perfumes.

Hence, the correct answer is 'A'.

#### Q23 Text Solution:

##### Explanation:

- Google CEO **Sundar Pichai** received India's third highest civilian award Padma Bhushan in 2022.

- Sundar Pichai, CEO of Google and Alphabet, received the prestigious Padma Bhushan award from the Indian envoy to the US, expressing his gratitude to the Indian government and people for the honor.
- Pichai emphasized his connection to India, stating that it is a part of him and he carries it wherever he goes.
- Pichai highlighted the importance of technology in providing access to information and knowledge in different languages, particularly in India.
- He praised Prime Minister Modi's Digital India vision for accelerating progress in digital transformation and expressed pride in Google's investment in India over the past two decades.

Hence, the correct answer is option (D).

#### Q24 Text Solution:

##### Explanation:

- The correct answer is **Ashleigh Barty**.
- Australian tennis player Ashleigh Barty defeated American Danielle Collins to win the Australian Open women's title on 29 January 2022. Barty is the first Australian player to win the Australian Open singles championship since 1978.

Hence, the correct answer is option (C).

#### Q25 Text Solution:

##### Explanation:

- Popularly known as the 'Earth Summit', the United Nations Conference on Environment and Development (UNCED) held on **3-14 June 1992, in Rio de Janeiro, Brazil**, marked the twentieth anniversary of the United Nations Conference on the Human Environment held in Stockholm, Sweden, in 1972.
- The Convention on Biological Diversity (CBD) was opened for signature at the United Nations Conference on Environment and Development in **June 1992**.



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- The CBD goes well beyond a mere conservation treaty and beyond the scope of

traditional environmental treaties.

**Hence, the correct answer is option (A).**



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