

HITSCAT 2022

MODEL PAPER

(Common for SLAAS, SAHS, SOM, SOL, SPADE (Design))

Total Marks: 60

Duration: 2 hrs

Number of Questions: 40 (Part A) & Part B – 20 questions.

Part A : English & General Knowledge | Part B specific to the School/Department

PART A

1. Aspergillosis, which was making news recently, is a disease.

[A] Viral

[B] Bacteria

[C] Fungal

[D] None of the above.

2. When is the “World No Tobacco Day” observed by WHO every year?

[A] May 31

[B] June 1

[C] June 10

[D] June 20

3. ‘Operation Red Rose’ is an anti-illicit liquor campaign, being implemented in which state?

[A] New Delhi

[B] Punjab

[C] Rajasthan

[D] Tamil Nadu

4. which Indian athlete has won the ‘Woman of the Year’ Award from World Athletics Association?

[A] P T Usha

[B] Anju Bobby George

[C] Koneru Humpy

[D] Sania Mirza

5. Which State Police launched the 'Call your Cop' mobile App, to connect distressed citizens with Police?

- [A] Nagaland
- [B] West Bengal
- [C] Kerala
- [D] Odisha

6. Vaccination against which disease was conducted recently as a National Vaccination Day?

- [A] Hepatitis
- [B] Polio
- [C] Pneumonia
- [D] BCG

7. Which word has been chosen as the "2021 word of the year" by Merriam-Webster?

- [A] Vaccine
- [B] Quarantine
- [C] Infection
- [D] Isolation

8. "Super Follows" feature has been introduced by which social media giant?

- [A] Twitter
- [B] Facebook
- [C] Google
- [D] WhatsApp

10. Who has been appointed as the Chief Election Commissioner in the year 2021?

- [A] Sushil Chandra
- [B] Prasanna Chandra
- [C] Ajay Kumar Bhalla
- [D] Injeti Srinivas

11. What is the theme of 'World Aids Day' 2021?

- [A] End inequalities. End Aids. End pandemics
- [B] Leaving No one behind
- [C] Stigma surrounding AIDS
- [D] AIDS during COVID Times

12. For which of the following disciplines is Nobel Prize awarded?

- A. Physics and Chemistry
- B. Physiology or Medicine
- C. Literature, Peace and Economics
- D. All of the above

13. Hitler party which came into power in 1933 is known as

- A. Labour Party
- B. Nazi Party
- C. Ku-Klux-Klan
- D. Democratic Party

14. ICAO stands for

- A. International Civil Aviation Organization
- B. Indian Corporation of Agriculture Organization
- C. Institute of Company of Accounts Organization
- D. None of the above.

15. India has largest deposits of _____ in the world.

- A. gold
- B. copper
- C. mica
- D. None of the above

16. How many Lok Sabha seats belong to Tamilnadu?

- A. 40
- B. 25
- C. 30
- D. 17

17. Kiran Bedi received which award for exemplary government service

- A. Magsaysay Award
- B. Padma shree
- C. Padma vibushan
- D. Great women police award.

18. Logarithm tables were invented by

- A. John Napier
- B. John Doe
- C. John Harrison
- D. John Douglas

19. With which sport is the Santosh trophy associated?

- A. Basketball
- B. Football
- C. Hockey
- D. Golf

20. Joule is the unit of

- A. temperature
- B. pressure
- C. energy
- D. heat

21. The main objectives of the UN are

- A. to maintain peace and security in the world
- B. to work together to remove poverty, disease and illiteracy and encourage respect for each other's rights of basic freedom.
- C. to develop friendly relations among nations
- D. All of the above

22. The headquarter of International Atomic Energy Agency (IAEA) are situated at

- A. Vienna
- B. Geneva
- C. Rome
- D. Paris

23. The Scottish bacteriologist who discovered penicillin was

- A. Alexander Fleming
- B. Albert Einstein
- C. Archimeder
- D. Aryabhata

24. Thomas Cup is associated with

- A. badminton
- B. billiards
- C. lawn tennis
- D. table tennis

25. Ranjit trophy is associated with

- A. badminton
- B. Cricket
- C. lawn tennis
- D. table tennis

26. 'JIMEX', is the maritime exercise between India and which country?

- [A] Japan
- [B] Sri Lanka
- [C] Jamaica
- [D] France

27. Who is the first Chairman of Insolvency and Bankruptcy Board of India?

- [A] MS Sahoo
- [B] PK Sinha
- [C] SN Sinha
- [D] PK Mohapatra

28. What is the name of India's first indigenous aircraft carrier (IAC)?

- [A] Arjun
- [B] Vikrant
- [C] Kattabomman
- [D] Bharathi

29. Siang river, which was making news with reference to Red Panda species, is located in which state?

- [A] Sikkim
- [B] Arunachal Pradesh
- [C] Assam
- [D] Meghalaya

30. Which company has made first ever PC using plastic waste in ocean?

- [A] HP
- [B] Dell
- [C] Intel
- [D] Sony

Directions for questions 31 to 35: Read the passage carefully and answer the following questions

Influence is a very powerful effect that plays a crucial role to guide our actions and development and when an individual affects the behavior of the masses, it becomes essential to know what makes that person so different from the rest. Let's go through the profiles of these three people who rose from humble beginnings to occupy great positions in the society.

The appointment of **Google's new CEO, Sundar Pichai**, an IITian from India, created history and influenced billions this year. Pichai grew up in Chennai. He was a shy lad who did his engineering from IIT Kharagpur and then took a flight to Stanford on scholarship with a plan to get a PhD in Materials

Science and Semiconductor Physics. However, his destiny too had some plans different than he aspired. Hence, he dropped out of the program and joined Google in 2004 via Silicon Valley and McKinsey. In Google, he drew attention with his thrilling idea to build Google's own browser. Apart from Chrome, Pichai had led the innovative efforts for many other Google's products including Chrome OS, which became a huge success. Pichai also supervised Google's other core efforts like Gmail, Google Maps and Google Drive. As a CEO, he is **self-deprecating**, supportive and graceful at navigating political minefields which influence not only his fans but his rivals equally.

With the increasing level of violence across the globe, the entire mankind is in search of a peaceful corner today. It seems that the whole world is sitting on the brink of a constant war. With his **arduous** efforts, our next personality is spreading peace and trying to demolish violence. **LhamoThondup, the 14th Dalai Lama**, makes his modest effort to awaken us with a message, "Our prime purpose in this life is to help others. And if you can't help others, at least don't hurt them". After, he got his heart injured by China's Invasion on Tibet in 1950, he along with his large number of followers migrated to Dharmasala, India where he established a monastery and started taking actions with the hope to establish an autonomous Tibetan state within the People's Republic of China. A part of his **humanitarian** efforts, he has conducted many conferences, workshops and lectures across the world. In 1989, he was conferred on the Nobel Peace Prize for his **endeavors**. Kenneth H. Blanchard rightly states, "The key to successful leadership is influence, not authority", and that is what is the objective of this colossal religious figure.

It could not have been easy for **Tim Cook, the CEO of Apple**, to step into the immense shadow cast by the late Apple co-founder, Steve Jobs. But with elegance and courage and an unabashed willingness to be his own man, Tim has shoved Apple to **implausible** profitability — and greater social responsibility. A new standard for what business can do in the world has been set by him. Tim's commitment to renewable energy is also making our planet cleaner and greener, especially for the generations yet to come. Most importantly, he has proved that profitability and integrity are **interwoven**. He has proved that even the well-tuned companies can and should be judged by more than just their bottom line.

Born in the **exquisite** Swat Valley of Pakistan in 1997 and started realizing the grave condition of girls' education in the area at a very young age, **Malala Yousafzai**, emerged as one of the most prominent figures striving for children's rights across the world. Despite the continuous threats of Taliban to deny her education, Malala bravely gave voice to her revolutionary thoughts at the age of only 13 from the ramparts of Peshawar, Pakistan in 2008. The platform was constantly growing to support her activism and she too continued demanding for her as well as for the other women, the right to education. Her efforts resulted in her being nominated for the International Children's Peace Prize in 2011. Moreover, she was awarded the Pakistan's National Youth Peace Prize the same year.

But her increasing **activism** proved exasperating for Taliban, therefore, on Oct. 9, 2012, a gunman shot on Malala's head when she was on her way home from school. She got critically injured and was taken to Peshawar and then Birmingham, England for multiple brain surgeries. After struggling for life for some days in coma, she woke up and continued her contribution for the betterment of women. For her bold efforts, she was recognized by the European Parliament and was awarded the Sakharov Prize for Freedom of Thought followed by the Nobel Peace Prize in 2014.

(Directions: Questions 31—35)

31. Find the word most similar in meaning to the words as used in the passage: Arduous

- A - Confusing
- B - Grueling
- C - Unsupportive
- D - Uncaring

32 – Endeavors

- A - Way
- B - Objective
- C - Effort
- D - Plan

33 – Implausible means

- A - Impossible
- B - Impractical
- C - Unimportant
- D - Far-fetched

34 – Humanitarian

- A - Do-gooder
- B - Sooth-sayer
- C - Listener
- D - Praying

35. Find the word most dissimilar (opposite) in meaning to the words as used in the passage: Activism

- A - Action
- B - Method
- C - Policy
- D - Passivity

36. Which metro railway system operates 100% on solar power?

- A. Chennai Metro railway
- B. Bangalore Metro railway
- C. Delhi Metro railway
- D. Mumbai Metro railway

37. The first Battery was made by

- A. Edison
- B. Alessandro Volta
- C. Newton
- D. Einstein

38. Which institution in its global report in coronavirus, estimated that most economies will not return to pre-pandemic levels until 2022?

- [A] Ind-Ra
- [B] Moody's

- [C] S&P
- [D] CRISIL

39. The Supreme Court has stayed the dismantling of which aircraft carrier recently?

- [A] INS Bikranth
- [B] INS Vikrant
- [C] INS Viraat
- [D] INS Arihant

40. Which state is set to construct a Covid Warrior Memorial?

- [A] Tamil Nadu
- [B] Kerala
- [C] Odisha
- [D] Karnataka

School of Allied Health Sciences

(PART B)

Max Marks 20

1. The reaction which converts sugar solution into alcohol is an example of

- A. saponification
- B. hydrogenation
- C. fermentation
- D. hydrolysis

2. The unit of power is

- A. ohm
- B. watt
- C. ampere
- D. None of the above

3. Decibel is the unit for

- A. speed of light
- B. radio wave frequency
- C. intensity of sound
- D. intensity of heat

4. Fathom is the unit of

- A. sound
- B. depth
- C. frequency
- D. distance

5. Which of the following is used as a moderator in nuclear reactor?

- A. Thorium
- B. Graphite
- C. Radium
- D. Ordinary water

6. Which among the following is a positively charged particle emitted by a radioactive element?

- A. Beta ray
- B. Alpha ray
- C. Cathode ray
- D. Gamma ray

7. Which among the following play role in the formation of Rainbow?

- 1. Dispersion
- 2. Total Internal Reflection
- 3. Refraction

Select the correct option from the codes given below:

- [A] Only 1 & 2
- [B] Only 2 & 3
- [C] Only 1 & 3
- [D] 1, 2 & 3

8. The force that binds the neutrons and protons in a nucleus is called as:

- [A] Weak Nuclear Force
- [B] Strong Nuclear Force
- [C] Electromagnetic Force
- [D] Gravitational Force

9. Which gas is used in making of Vanaspati ghee from vegetable oils?

- [A] N₂
- [B] NO₂

[C] H₂

[D] Ne

10. What are the main constituents of LPG?

[A] Methane, Hexane, Ethane

[B] Methane, Butane, Propane

[C] Ethane, Pentane, Hexane

[D] Ethane, Methane, Pentane

11. Which of the following traits was not studied by Mendel?

(A) Flower position

(B) Seed color

(C) Flower color

(D) Seed size

12. The body cavity of coelomates is lined by :

(A) Mesoderm

(B) Ectoderm

(C) Endoderm

(D) Protoplasm

13. In-ear, the membranous labyrinth is filled with a fluid called :

(A) Endolymph

(B) Perilymph

(C) Plasma

(D) Haemolymph

14. Most of the fats absorbed in the small intestine enter the :

(A) Lacteals

(B) Arterioles

(C) Venules

(D) Microvilli

15. The wall of the internal organs such as blood vessels, stomach, and intestine contains this type of muscle tissue:

- (A) Smooth muscle fiber
- (B) Cardiac muscle fiber
- (C) Skeletal muscle fiber
- (D) Neural tissue

16. Testosterone, the male sex hormone is synthesized in the:

- (A) Seminiferous tubules
- (B) Interstitial cells
- (C) Vas deferens
- (D) Prostate gland

17. In humans, the right atrioventricular aperture of the heart is guarded by:

- (A) Monocuspid valve
- (B) Bicuspid valve
- (C) Tricuspid valve
- (D) Tetracuspid valve

18. In which part of the nephron the reabsorption of filtrate is minimum?

- (A) Proximal convoluted tubule
- (B) Glomerulus
- (C) Distal convoluted tubule
- (D) Henle's loop

19. The chronic use of alcohol may lead to:

- (A) Hepatitis B
- (B) Cirrhosis
- (C) AIDS

(D) Pneumonia

20. Which organ is called the graveyard of RBCs?

(A) Spleen

(B) Liver

(C) Pancreas

(D) Kidneys

Answer key:

PART A

1. C	11. A	21. D	31. B
2. A	12. D	22. A	32. C
3. B	13. B	23. A	33. D
4. B	14. A	24. A	34. A
5. A	15. C	25. B	35. D
6. B	16. A	26. A	36. C
7. A	17. A	27. A	37. B
8. A	18. A	28. B	38. B
9. A	19. B	29. B	39. C
10. A	20. C	30. A	40. C

PART- B

1. C	11. D
2. C	12. A
3. C	13. A
4. B	14. A
5. B	15. A
6. A	16. B
7. D	17. C
8. B	18. B
9. C	19. B
10. B	20. A