

NATIONAL MEANS CUM MERIT SCHOLARSHIP SCHEME EXAMINATION 2020-21

CENTRE CODE						
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400426

SEAT NO.																				
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## QUESTION BOOKLET

# SCHOLASTIC APTITUDE TEST

CLASS VIII

MEDIUM : ENGLISH

DATE : 21 March, 2021

[Time : 13:30 P.M. to 15:00 P.M. ]

Maximum Marks : 90

Time : 90 Minutes

Total Pages : 32

# INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you answer the questions.

1. Answers are to be bubbled only on the separate OMR answer sheet provided to you. After examination detach the carbonless copy from original OMR & keep carbonless copy with you till the declaration of result.
2. Please write your Center Code & Seat No. very clearly (only one digit in one block) on question paper. Before writing your seat no. ascertain it with Hall ticket. Please see that no block is left blank or unfilled.

**Example :**

CENTRE CODE	1	1	0	2									
SEAT NO.	M	3	3	9	2	1	1	1	0	2	1	2	3

3. Please ensure that you have received **Scholastic Aptitude Test** answer sheet.
4. Total number of questions are 90 for this paper. All questions carry one mark each.
5. All questions are compulsory.
6. For each question there are four options given in question paper. Check for the correct answer and bubble correct option from four circles given in answer sheet by Black/Blue pen. Please do not write any answers on question paper.
7. Start answering from first question one after the other till last question.
8. If you do not know the answer to any question, do not spend much time on it and pass on to the next one. Time permitting you can come back to the questions which you have left in the first instance and try them again.
9. Utilize the allotted time for solving the questions in best possible way. The rough work is to be done in the box given under each page.
10. Do not write anything except Center Code, Seat No. and rough work anywhere in this booklet.

1. A revolving electric fan continues to revolve even after it is switched off, is an example of \_\_\_\_\_.
- (1) Inertia of rest
  - (2) Inertia of motion
  - (3) Inertia of direction
  - (4) Pressure
2. What will be the total potential difference of the battery in the following case, if each cell has potential difference of 1.25 V?



- (1) 6.00 V
  - (2) 5.75 V
  - (3) 6.25 V
  - (4) 2.65 V
3. Cyanocobalamin is nothing but \_\_\_\_\_.
- (1) Vitamin B-12
  - (2) Vitamin B-6
  - (3) Vitamin B-3
  - (4) Vitamin B-2

Space for Rough Work

4. Which of the following options of statements related to linear expansion are true?

(a) Increase in length of a wire or a rod due to increase in temperature.

(b)  $l_2 = l_1(1 + \lambda \Delta T)$

(c) Lambda is called the coefficient of linear expansion of the solid substance.

(d) Lambda is the constant of proportionality.

(1) a, b & c

(2) a, c & d

(3) b, c & d

(4) a, b, c & d

5. 1004 Hz frequency means

(1) 1004 cycles / second

(2) 1004 compressions / second

(3) 1004 rarefactions / second

(4) 1004 wavelength ( $\lambda$ )

6. Which of the following statements about irregular reflection of light, is incorrect?

(1) It takes place on rough surface.

(2) The angles of incidence for parallel rays are not equal.

(3) The reflected rays spread over a large surface.

(4) The laws of reflection are not followed.

7. Pieces of discarded glass are added in the production of glass so as to \_\_\_\_\_.

(1) make it to be malleable

(2) make it transparent

(3) form the mixture crystalline

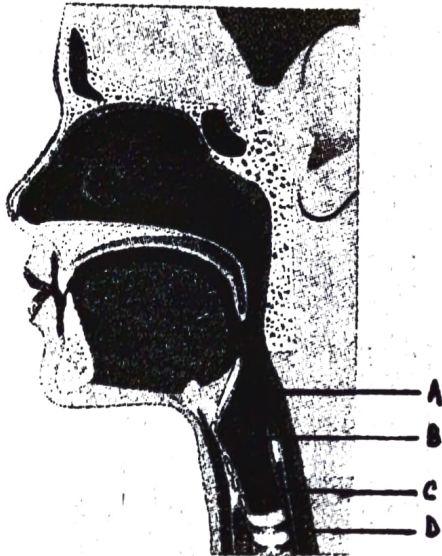
(4) melt the mixture at low temperature

Space for Rough Work

8. The construction of ships and submarines is based on \_\_\_\_\_.

- (1) Pascal's law
- (2) Newton's law
- (3) Archimedes's principle
- (4) Gravitation's principle

9. Choose the correct alternative from the figure given below.



- (1) (A) Larynx      (B) Esophagus      (C) Vocal cords      (D) Trachea
- (2) (A) Epiglottis      (B) Vocal cords      (C) Trachea      (D) Esophagus
- (3) (A) Epiglottis      (B) Larynx      (C) Esophagus      (D) Vocalcords
- (4) (A) Larynx      (B) Trachea      (C) Vocal cords      (D) Esophagus

Space for Rough Work



10. In the scattering of sunlight \_\_\_\_\_ coloured rays are mostly scattered.
- (1) Red (2) Blue  
(3) Green (4) Yellow
11. While standing on the ground, the point on the celestial sphere exactly above our head is called \_\_\_\_\_.
- (1) Zenith (2) Nadir  
(3) Ecliptic (4) Celestial equator
12. The valency of atom is related to \_\_\_\_\_
- (1) Number of protons  
(2) Number of electrons  
(3) Number of neutrons  
(4) Mass of the atom
13. Which of the following is incorrect statement regarding the noble metals?
- (1) They are in elemental form.  
(2) They are easily affected by air, water and heat.  
(3) They are not corrosive at room temperature.  
(4) They are not oxidised at room temperature.

Space for Rough Work

14. Name the isotope of hydrogen used in formation of heavy water.
- (1) Hydrogen
  - (2) Tritium
  - (3) Deuterium
  - (4) None of these
15. Which metal is kept under kerosene?
- (1) Potassium
  - (2) Calcium
  - (3) Sodium
  - (4) Magnesium
16. Which among the following reactions is not a chemical change?
- (1) Respiration
  - (2) Photosynthesis
  - (3) Burning of fuel
  - (4) Stretching a spring
17. Which of the following is a chemical formula of baking soda?
- (1)  $\text{Na}_2\text{CO}_3$
  - (2)  $\text{Na}_2\text{SO}_4$
  - (3)  $\text{NaHCO}_3$
  - (4)  $\text{NaOH}$

Space for Rough Work

18. Choose the different word among the following :

- (1) Sodium
- (2) Magnesium
- (3) Aluminium
- (4) Oxygen

19. The proportion of constituent elements of oxygen and hydrogen by weight in water is \_\_\_\_\_.

- (1) 8 : 1
- (2) 1 : 8
- (3) 8 : 8
- (4) 1 : 1

20. Find the odd one from the following :

- (1) Helium
- (2) Hydrogen
- (3) Argon
- (4) Neon

21. Name the method which is used to separate the substances which are not miscible in each other.

- (1) Centrifugation
- (2) Separation
- (3) Distillation
- (4) Chromatography

Space for Rough Work



22. Name the method which is not applicable for the corrosion of metals.
- (1) Galvanisation (2) Metal coating  
(3) Powder coating (4) Dip in water
23. Identify the incorrect pair from the following.
- (1) Human — Influenza virus  
(2) Bacteria — Bacteriophage  
(3) Plants — Tomato-Wilt Bacterium  
(4) Cattle — Picorna virus
24. What is the scientific name of China rose?
- (1) *Hibiscus rosa-sinesis*  
(2) *Cannis famalaris*  
(3) *Bos toirus*  
(4) *Sorghum vulgare*
25. Which of the following statements is false?
- (1) To cure the disease Tuberculosis the treatment DOT is given completely and regularly.  
(2) To treat Dysentery, Oral Rehydration solution should be consumed.  
(3) To prevent Cholera, vaccination against cholera should be done.  
(4) To prevent Typhoid, BCG vaccination should be injected.

Space for Rough Work

26. Which of the following, is not a symptom of Heart disease?

- (1) Obesity
- (2) Severe chest pains
- (3) Sweating
- (4) Uneasiness, tremors

27. What is the process in the given example below ?

'If fruit pieces are kept in thick saturated sugar solution, the water from fruit pieces enter the sugar solution. So the fruit pieces shrink after a while'.

- (1) Diffusion
- (2) Osmosis in isotonic solution
- (3) Osmosis in hypotonic solution
- (4) Osmosis in hypertonic solution

28. For which of the following studies, Camilio Golgi alongwith Santiago Cajal won the Nobel Prize in 1906?

- (1) Discovery of Blood Group
- (2) Pasteurization
- (3) Cell
- (4) Structure of Nervous system

Space for Rough Work

**29.** Which of the following is incorrect function of blood?

- (1) Albumin - Distributes the water all over the body
- (2) Fibrinogen and Prothrombin - Help in blood clotting process
- (3) Globulins - Keep the balance of salts
- (4) Inorganic ions - Control the function of muscles and nerves

**30.** \_\_\_\_\_ is measured with the help of sphygmomanometer.

- (1) pH of blood
- (2) Blood pressure
- (3) Heartbeat
- (4) Gaseous pressure

**31.** In which state Kaziranga National Park is situated?

- (1) Gujarat
- (2) Assam
- (3) Rajasthan
- (4) Maharashtra

Space for Rough Work

32. The layer of \_\_\_\_\_ gas protects living beings from ultraviolet (UV-B) radiations emitted from sun.

- (1) Ozone (2) Carbon di-oxide  
(3) Oxygen (4) Methane

33. Which of the following group of gases causes Green House Effect?

- (1) CO<sub>2</sub>, CFC, SO<sub>2</sub>, nitrous oxide  
(2) CO<sub>2</sub>, CH<sub>4</sub>, CFC, nitrous oxide  
(3) CO<sub>2</sub>, CFC, SO<sub>2</sub>, NO<sub>2</sub>  
(4) CO<sub>2</sub>, CH<sub>4</sub>, SO<sub>2</sub>, NO<sub>2</sub>

34. Which of the following is an incorrect statement?

- (1) Class A fire is put out with water  
(2) Class B fire is extinguished using fire extinguishers  
(3) Class D fire is extinguished by pouring water  
(4) Class E fire is extinguished using non-conductive fire extinguishers like carbon di-oxide

35. Due to deficiency of \_\_\_\_\_ nutrient there is late flowering in plants.

- (1) potassium (2) phosphorus  
(3) iron (4) zinc

Space for Rough Work

36. According to resolution passed in Indian National Congress session held in 1920, a programme was framed to boycott following; find wrong option.
- (1) Government offices
  - (2) Court
  - (3) Indian goods
  - (4) Government school and college
37. Who played active role in the International Communist Movement?
- (1) Bhikaji Kama
  - (2) Manabendra Nath Roy
  - (3) Rasbihari Bose
  - (4) P. Shyamjirishna Varma
38. Which party was founded to liberate Portuguese colonies of Dadra and Nagar Haveli?
- (1) Operation Polo
  - (2) Azad Hind Sangh
  - (3) Azad Gomantak Dal
  - (4) Tufan Sena

Space for Rough Work

39. Which one of the following is not related to Civil Disobedience Movement?
- (1) Kamaladevi Chattopadhyay
  - (2) Avantikabai Gokhale
  - (3) Hansaben Mehta
  - (4) Aruna Aasaf Ali
40. In 1927 Dr. Babasaheb Ambedkar started \_\_\_\_\_ newspaper.
- (1) Muknayak
  - (2) Bahishkrut Bharat
  - (3) Janata
  - (4) Prabuddha Bharat
41. Who was last Governor General and First Viceroy of India?
- (1) Lord Ripon
  - (2) Lord Dalhousie
  - (3) Lord Canning
  - (4) Lord Bentinck

Space for Rough Work



42. Who said following statement "Everyone of you should from this moment onwards, consider yourself a free man or woman and behave like a citizen of free India \_\_\_\_\_".
- (1) Maulana Azad
  - (2) Mahatma Gandhi
  - (3) Pandit Nehru
  - (4) Sardar Vallabhbhai Patel
43. Under \_\_\_\_\_ 's leadership Bajirao sent his knights to strengthen their posts at Malwa in today's Madhya Pradesh.
- (1) Malhar Rao Holkar
  - (2) Ranoji Shinde
  - (3) Udaji Pawar
  - (4) Chimaji Appa
44. Select the option which shows correct chronological order of the following :
- (I) Represented Parliament of Religions at Chicago.
  - (II) First school of girls started.
  - (III) Arya Samaj was founded.
  - (IV) Hindu Mahasabha was established.
- (1) III, I, II, IV
  - (2) II, III, I, IV
  - (3) IV, I, III, II
  - (4) II, I, III, IV

Space for Rough Work

45. Person in given picture is related to which Satyagraha?

- (1) Mulshi Satyagraha
- (2) Peshawar Satyagraha
- (3) Kheda Satyagraha
- (4) Solapur Satyagraha



46. Who said the following sentence "Maharaj did not belong to Maharashtra alone, he belonged to the whole Indian nation \_\_\_\_\_".

- (1) Pandit Jawaharlal Nehru
- (2) Mahatma Phule
- (3) Dr. Babasaheb Ambedkar
- (4) Lokmanya Tilak

47. Which organisation was established by Indians living in America and Canada?

- (1) Hindustan Socialist Republican Association
- (2) Gadar
- (3) Abhinav Bharat
- (4) Anushilan Samiti

Space for Rough Work

48. As per Nagpur Pact, amendment of constitution, Article 371(2) in 1956, which of the following is incorrect?
- (1) Extra financial provision for development work
  - (2) Ample finance for technical and vocational education
  - (3) Provision of state government services in particular regions in accordance with population
  - (4) Annual Assembly session of Maharashtra should be held in Nagpur
49. \_\_\_\_\_ insisted that only the Muslim League should have the right to suggest the name of Muslim representatives to the Viceroy's Executive Council.
- (1) Muzaffar Hussain
  - (2) Mahatma Gandhi
  - (3) Siraj-Ul-Hasan
  - (4) Barrister Jinnah
50. Who gave following message to the Indian youth \_\_\_\_\_ "Arise, Awake and stop not till the goal is achieved."
- (1) Swami Dayanand Saraswati
  - (2) Gopal Hari Deshmukh
  - (3) Swami Vivekanand
  - (4) Veeresalingam Pantulu

Space for Rough Work

51. Which function among the following does not come under the functions of Supreme Court?
- (1) To settle the disputes between the centre and the state
  - (2) To appoint the judges
  - (3) To protect the fundamental rights of citizen
  - (4) To provide necessary advice if it is asked by president
52. To prevent a subordinate court from exceeding its jurisdiction is known as \_\_\_\_\_.
- (1) Mandamus
  - (2) Prohibition
  - (3) Habeas Corpus
  - (4) Quo Warranto
53. The person contesting the presidential elections should have the age of at least \_\_\_\_\_ years.
- |        |        |
|--------|--------|
| (1) 18 | (2) 25 |
| (3) 30 | (4) 35 |
54. Choose the correct number which comprises members of the first house legislature of Maharashtra.
- |         |         |
|---------|---------|
| (1) 288 | (2) 250 |
| (3) 78  | (4) 29  |

Space for Rough Work

55. Identify the incorrect option / statement.
- (1) The function of the legislature is to make laws
  - (2) The executive implements the law.
  - (3) The judiciary provides justice.
  - (4) The Legislature, The Executive and The Judiciary's interrelationship that is decided by the government.
56. The continents are mainly composed of \_\_\_\_\_ and \_\_\_\_\_.
- (1) Silica and Magnesium
  - (2) Nickel and Iron
  - (3) Silica and Aluminium
  - (4) Silica and Nickel
57. Choose the correct order of ocean relief.
- |                       |                       |
|-----------------------|-----------------------|
| (A) Continental shelf | (B) Abyssal plains    |
| (C) Marine trenches   | (D) Continental slope |
- (1) A, B, C, D
  - (2) A, C, B, D
  - (3) A, B, D, C
  - (4) A, D, B, C

Space for Rough Work

58. Which one of the following is not warm ocean current?
- (1) Brazil current
  - (2) Oyashio current
  - (3) Gulf current
  - (4) Somali
59. Which one of the following does not come under public utility area?
- (1) Building, houses
  - (2) Hospital
  - (3) Post Office
  - (4) School
60. When moon is closest to the earth it is said to be in .....
- (1) Lunar Eclipse
  - (2) Apogee
  - (3) Solar Eclipse
  - (4) Perigee

Space for Rough Work



61. Choose the correct option of pairs:

(A) Types of Clouds

1. Cirrus
2. Alto-stratus
3. Nimbo stratus
4. Cumulus

(B) General Altitudes of clouds

- a. The extent could be variable
- b. Less than 2000 meters
- c. 7000 to 14000 meters
- d. 2000 to 7000 meters

Options :

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

62. People of \_\_\_\_\_ age group are included in the productive population.

- (1) 14 to 60 years
- (2) 15 to 60 years
- (3) 0 to 14 years
- (4) 15 to 59 years

Space for Rough Work

63. Which soil is known as 'black soil'?
- (1) Laterite
  - (2) Coarse
  - (3) Brown
  - (4) Regur
64. In two hours how many longitudes will face the sun?
- (1) 15 longitudes
  - (2) 30 longitudes
  - (3) 40 longitudes
  - (4) 50 longitudes
65. As per the statistics 2010 literacy rate of India is \_\_\_\_\_.
- (1) 72.1%
  - (2) 96.4%
  - (3) 61.5%
  - (4) 92.6%

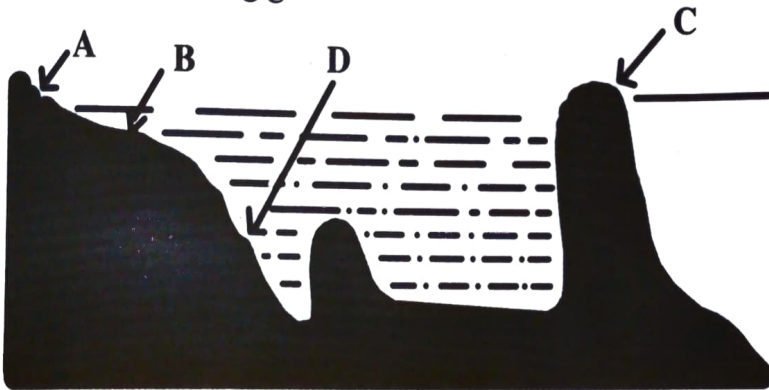
Space for Rough Work

66. From the below options which one is not a characteristic of the mountain breeze?
- (1) Mountains cool down quickly at night
  - (2) The valley zone is comparatively warmer
  - (3) Air pressure is low on the mountain
  - (4) Air pressure is greater on the mountain

67. The difference between the temperatures of the outer and inner core gives rise to \_\_\_\_\_ currents.

- |              |                |
|--------------|----------------|
| (1) Downward | (2) Horizontal |
| (3) Electric | (4) Vertical   |

68. Observe the diagram given below and identify the correct option which indicates Extensive Fishing grounds.



- |       |       |
|-------|-------|
| (1) A | (2) B |
| (3) D | (4) C |

Space for Rough Work

69. Which one of the following is not included in the details of 7/12 extract?
- (1) Yearly budget
  - (2) Status of debts and loans
  - (3) Ownership rights of the family
  - (4) Area under different crops
70. On \_\_\_\_\_ in Maharashtra, the state government established the 'Maharashtra Industrial Development Corporation'.
- (1) 16 November 1992
  - (2) 10 January 1992
  - (3) 1 August 1962
  - (4) 11 August 1962
71. Perimeter of square is 48 cm. So length of its diagonal will be = ?
- (1) 24 cm
  - (2) 12 cm
  - (3)  $10\sqrt{2}$  cm
  - (4)  $12\sqrt{2}$  cm

Space for Rough Work

72.  $(3a + 4b - 5c)^2 = ?$

(1)  $9a^2 + 16b^2 + 25c^2 + 12ab - 20bc - 15ac$

(2)  $9a^2 + 16b^2 + 25c^2 + 24ab - 40bc - 30ac$

(3)  $9a^2 + 16b^2 + 25c^2 + 48ab - 20bc - 30ac$

(4)  $9a^2 + 16b^2 + 25c^2 + 24ab + 40bc + 30ac$

73. When hypotenuse and a side of the right angle triangle is congruent to hypotenuse and corresponding side of the other triangle (right angle) then both triangles are congruent by which of the following congruency test?

(1) S - A - S

(2) S - S - S

(3) A - S - A

(4) hypotenuse-side

74.  $\sqrt[3]{6859} = ?$

(1) 13

(2) 19

(3) 23

(4) 29

Space for Rough Work

75. 
$$\frac{\left(\frac{1}{2^3}\right)^3 + (5^7)^0}{(3^2)^{\frac{1}{2}}} = ?$$

(1) 4

(2) 3

(3) 2

(4) 1

76. Alloy of brass contains copper and zinc in the ratio 13:7. In 1.5 kg of brass vessel the weight of zinc will be = ?

(1) 975 g.

(2) 575 g.

(3) 525 g.

(4) 875 g.

77. Runs scored by members of a cricket team are 21, 17,  $x$ , 100, 57, 48, 47, 20, 35, 04, 02 and the mean score is 40. Hence value of  $x$  = ?

(1) 79

(2) 80

(3) 89

(4) 78

78. Diameter of a base of cylinder is 14 cm and its volume is  $2618 \text{ cm}^3$ . Hence height of the cylinder is = ?

(1) 15 cm

(2) 16 cm

(3) 17 cm

(4) 18 cm

Space for Rough Work



79. A cube has 6 surfaces and 8 vertices then how many sides it will have?
- (1) 10 (2) 8  
(3) 14 (4) 12
80.  $(2m^3 + 6m^2 + 12m + 8)$  is divided by  $(m+1)$  then quotient is = ?
- (1)  $2m^2 + 12m + 4$  (2)  $2(m^2 + 2m + 4)$   
(3)  $4(m^2 + 2m + 4)$  (4)  $3m^2 + 4m + 8$
81. Shamrao purchased a land plot at ₹ 3,50,000 through a broker. If brokerage is fixed at 3% then amount of brokerage = \_\_\_\_\_.
- (1) ₹ 10,500 (2) ₹ 6,500  
(3) ₹ 11,500 (4) ₹ 8,750
82. Average speed of a vehicle is 24 km / hr and it covers certain distance in 12 hours. If speed is increased three times then time required to cover same distance = ?
- (1) 8 (2) 6  
(3) 4 (4) 2

Space for Rough Work

83. AP is median of  $\Delta ABC$ . G is the point of concurrence of medians. AP = 15 cm  
then AG = \_\_\_\_\_ cm?

(1) 2.5

(2) 15

(3) 5

(4) 10

84.  $\frac{x^2 + 10x + 24}{x^2 - 16} + \frac{2x + 12}{x - 4} = ?$

(1)  $\frac{1}{2}$

(2)  $x - 4$

(3) 1

(4)  $(x + 6)(x + 4)$

85. Pair of interior angles formed when a pair of parallel lines are intersected by a transversal are  $2x^\circ$  and  $3x^\circ$ . Then their measures are = ?

(1)  $72^\circ, 108^\circ$

(2)  $144^\circ, 36^\circ$

(3)  $108^\circ, 62^\circ$

(4)  $120^\circ, 60^\circ$

86. Decimal form of rational number  $\frac{56}{37}$  is = ?

(1) 1.515

(2) 1.315

(3)  $1.\overline{513}$

(4)  $1.\overline{215}$

Space for Rough Work

87. Population of a town increases at the rate of 5% per year. In the year 2012 population of the town was 1,20,000. So in the year 2015, population will be = ?
- (1) 1,38,915 (2) 1,39,915  
(3) 1,38,951 (4) 1,39,918
88. A chord of length 32 cm is at distance of 12 cm from centre of a circle. Then diameter of the circle = ?
- (1) 20 cm (2) 40 cm  
(3) 42 cm (4) 48 cm
89.  $\frac{18-2x}{x-4} = \frac{4}{3}$  then value of  $x = ?$
- (1) 8 (2)  $\frac{15}{2}$   
(3) 7 (4) 5
90. Sides of a triangle are 13 cm, 14 cm and 15 cm then area of the triangle is = ?
- (1) 82 cm<sup>2</sup> (2) 74 cm<sup>2</sup>  
(3) 84 cm<sup>2</sup> (4) 104 cm<sup>2</sup>

Space for Rough Work

Space for Rough Work

Space for Rough Work

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