PREVIOUS YEAR PAPER

SSC MTS 2023 — 6 September 2023, Shift 2

SSC MTS & Havaldar · 6 September 2023 · 12:30 PM - 2:30 PM

78 of the paper's 90 questions · marks per question not printed on the response sheet

Left out of the original paper: 12 (any question that needs a figure or formatting we cannot show, has no answer in the response sheet, or could not be checked against a second copy of the paper).

Questions from the Staff Selection Commission's paper of 6 September 2023, 12:30 PM - 2:30 PM. Each question is followed by its answer, and the answer key is repeated on the last page.

Take it as a timed practice test: exambharo.com/ssc-mts/previous-year-papers/ssc-mts-2023-6-sep-shift-2/

Numerical and Mathematical Ability

1.

Pradeep is twice as good as Sandeep to complete a work. Working together, they can finish a piece of work in 28 days. In how many day can Pradeep alone finish the work?

(a) 46

(b) 40

(c) 44

(d) 42

Answer: (d)

4.

In ABC club, 88% members are men and 12% members are women. If the average age of the men is 25 years and that of the women is 50 years, then what is the average age of all the members?

(a) 27

(b) 28

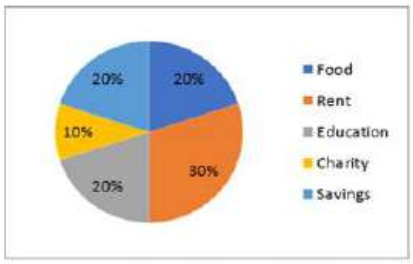
(c) 26

(d) 29

Answer: (b)

6.

The following pie chart gives the monthly budget of a family on the heads - Food, Rent, Education, Charity and Savings. The total income of the family is ₹9,000. Study the pie chart carefully and answer the question.



What is the total expenditure on the heads - rent, savings, food and education?

(a)

₹8,200

(b)

₹8,100

(c)

₹6,300

(d)

₹6,500

Answer: (b)

7.

Two tankers contain 850 litres and 680 litres of oil. Find the maximum capa of a container which can measure the oil of both tankers when used, an exact number of times.

(a)

425 litres

(b)

680 litres

(c)

340 litres

(d)

170 litres

Answer: (d)

8.

Find the mean proportional between 56 and 14.

(a)

42

(b)

14

(c)

35

(d)

28

Answer: (d)

9.

A and B can finish a work in $5\frac{1}{2}$ days. A alone can finish this work in 8 days. A and B worked on alternate days (starting with B) to finish this work. In how many days will the work be finished?

(a)

6 days

(b)

$11\frac{1}{3}$ days

(c)

11 days

(d)

$6\frac{1}{3}$ days

Answer: (c)

12.

The average of four consecutive odd numbers is 58. What is the lowest number?

(a)

51

(b)

57

(c)

55

(d)

53

Answer: (c)

14.

If $p : q = 5 : 2$, then $p^2 - q^2 : p^2 + q^2 = ?$

(a)

$29 : 21$

(b)

$4 : 3$

(c)

$3 : 4$

(d)

$21 : 29$

Answer: (d)

15. Simplify the following.

15÷5 of 3×4+8÷12 of 4×12-4÷5×20

(a)

$\frac{20}{3}$

(b)

-10

(c)

12

(d)

1

Answer: (b)

16.

A man takes 30 minutes to cover a certain distance at the speed of 8 km/h. If he walks at a speed of 16 km/h, he covers the same distance in:

(a)

15 minutes

(b)

30 minutes

(c)

25 minutes

(d)

20 minutes

Answer: (a)

17.

Metallic spheres of radii 6 cm, 8 cm and 10 cm, respectively, are melted to form a single solid sphere. Find the radius of the resulting sphere (in cm).

(a)

18

(b)

12

(c)

24

(d)

16

Answer: (b)

18.

Each edge of a cube is increased by 30%. What will be the increase in its surface area?

(a)

90%

(b)

60%

(c)

30%

(d)

69%

Answer: (d)

19.

If there is a profit of 25% on the cost price of an article, the percentage of profit calculated on its selling price will be:

(a)

20%

(b)

15%

(c)

18%

(d)

22%

Answer: (a)

20.

Trains A and B start at the same time. Train A travels at the speed of 50 km/h from station P to station Q and train B travels at the speed of 70 km/h from station Q to station P. They cross each other after 1 hour 20 minutes. What is the distance (in km) between station P and station Q?

(a)
180
(b)
150
(c)
140
(d)
160

Answer: (d)

Reasoning Ability and Problem Solving

1.

21 is related to 86 following a certain logic. Following the same logic, 33 is related to 134. To which of the following is 25 related to, following the same logic?

(a)
100
(b)
103
(c)
102
(d)
101

Answer: (c)

2.

If G means '−', A means '×', D means '+', B means '÷', then what will come in place of the question mark (?) in the following equation?

12 A 7 G 100 D 5 B 17 = ?

(a)
74
(b)
93
(c)
81
(d)
37

Answer: (c)

3.

What should come in place of ? in the given series?

26 39 52 65 ? 91 104

(a)

78

(b)

79

(c)

81

(d)

80

Answer: (a)

4.

In a certain code language, 'BLAME' is coded as 'CMBNF' and 'CHANGE' is coded as 'DIBOHF'. What is the code for 'DESERT' in the given code language?

(a)

EGTGSV

(b)

FHSGTV

(c)

EFTFSU

(d)

FGRFST

Answer: (c)

5.

Read the given statement(s) and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statement(s).
Statements: Some dogs are bats. Some bats are cats
Conclusions:
(I) Some dogs are cats.
(II) Some cats are dogs.

(a)
Both conclusions (I) and (II) are follows.

(b)
Only conclusion (II) is follows.

(c)
Neither conclusion (I) nor (II) is follows.

(d)
Only conclusion (I) is follows.

Answer: (c)

6.

Read the given statements and conclusions carefully. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. You have to decide which conclusion/s logically follow/s from the given statements.

Statements: Some paints are cats. All cats are dogs. Some dogs are bananas.

Conclusion I: Some paints are dogs.

Conclusion II: Some cats are bananas.

(a)
Neither conclusion (I) nor (II) is follow.

(b)
Both conclusions (I) and (II) are follow.

(c)
Only conclusion (I) is follow.

(d)
Only conclusion (II) is follow.

Answer: (c)

7.

What should come in place of '?' in the given series?

7 28 91 280 ? 2548 7651

(a)
823

(b)
871

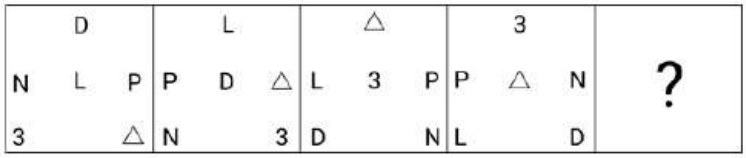
(c)
861

(d)
847

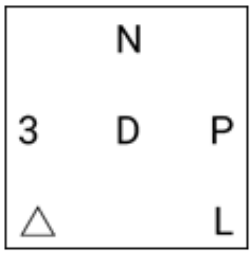
Answer: (d)

9.

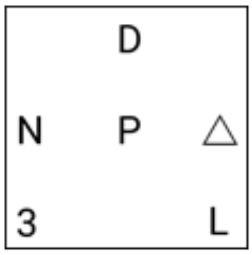
Which figure should replace the question mark (?) if the following figure series were to be continued?



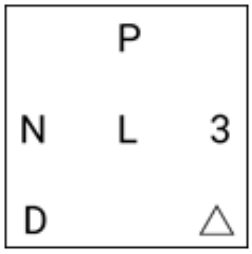
(a)



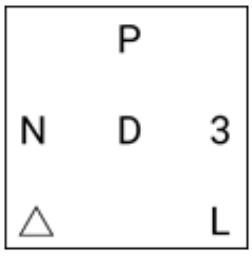
(b)



(c)



(d)



Answer: (a)

10.

Select the option figure in which the given figure (X) is embedded as its part (rotation is NOT allowed).



(X)

(a)



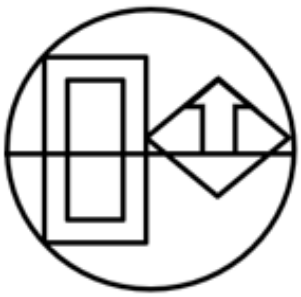
(b)



(c)



(d)



Answer: (b)

11.

What should come in place of '?' in the given series?

11 39 123 375 1131 ?

(a)
3399

(b)
3499

(c)
3187

(d)
3417

Answer: (a)

12.

What should come in place of ? in the given series based on the English alphabetical order?

ESP, CRN, AQL, YPJ, ?

(a)
YMG

(b)
YNI

(c)
WOH

(d)
ZNG

Answer: (c)

13.

Select the combination of letters that when sequentially placed in the blanks of the given series, will complete the series.

A _ AA _ _ AD _ _ DA

(a)
AADDA

(b)
DDAAA

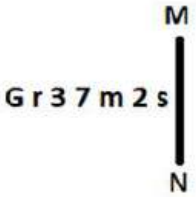
(c)
ADDAD

(d)
DAADD

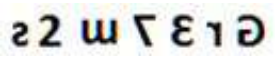
Answer: (b)

14.

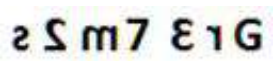
Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



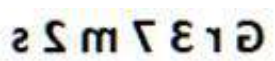
(a)



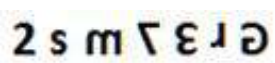
(b)



(c)



(d)



Answer: (c)

15. Seven people, C, F, D, K, O, L, and V are sitting in a straight line, facing south. V sits second to the right of F. Only three people sit to the right of O. K is an immediate neighbour of O and D. Only three people sit between L and V. F is not an immediat eighbour of L.

Who sits to the extreme left of the line?

(a) C

(b) F

(c) V

(d) D

Answer: (b)

16.

The position of how many letters will remain unchanged if each of the letter in the word 'GRAPES' is arranged in alphabetical order?

(a)

One

(b)

None

(c)

Four

(d)

Two

Answer: (d)

17.

In a certain code language, 'WHAT' is coded as 5298 and 'THAN' is coded as 9826. What is the code for 'W' in the given code language?

(a)

8

(b)

5

(c)

2

(d)

6

Answer: (b)

18.

BJTI is related to EMWL in a certain way based on the English alphabetical order. In the same way, HDRL is related to KGUO. To which of the following is OCGM related to, following the same logic?

(a)

RFIO

(b)

SEKO

(c)

RFJP

(d)

QEIR

Answer: (c)

20.

What should come in place of ? in the given series based on the English alphabetical order?

NBX, MEW, LHV, KKU, ?

(a)

HMS

(b)

JNT

(c)

IMR

(d)

HNS

Answer: (b)

General Awareness

1. Who inaugurated the 2023 World Squash Championships that was held in India?
   (a) KN Nehru
   (b) K Ponmudi
   (c) EV Velu
   (d) Udhayanidhi Stalin
   Answer: (d)

3. What is 'Mahawat' in India?
   (a) Cold waves during the winter season
   (b) Cloud burst during the monsoon season
   (c) Cyclonic rainfall during the winter season
   (d) Hot and dry winds during the summer season
   Answer: (c)

4. Who among the following is the author of the book 'Selection Day'?
   (a) Vikram Seth
   (b) Aravind Adiga
   (c) Chetan Bhagat
   (d) Amish Tripathi
   Answer: (b)

5. Which Article of the Constitution of India deals with the organization of village panchayat?
   (a) Article 38
   (b) Article 45
   (c) Article 40
   (d) Article 36
   Answer: (c)

6. Bharati Shivaji and Kanak Rele are exponents of _____.
   (a) Manipuri
   (b) Mohiniyattam
   (c) Kathak
   (d) Odissi
   Answer: (b)

7. Which is the most common ore of oxidised mercury that occurs in granular crusts or veins associated with volcanic activity and hot springs?

(a) Diaspore
(b) Siderite
(c) Cinnabar
(d) Corundum

Answer: (c)

8. Women's World Boxing Championship 2023 was held in which city in India?

(a) Goa
(b) Punjab
(c) New Delhi
(d) Gujarat

Answer: (c)

9. Who is regarded as the 'Mother of Indian Revolution'?

(a) Annie Besant
(b) Usha Mehta
(c) Madame Cama
(d) Kasturba Gandhi

Answer: (c)

10. Which microscopic, single-celled photosynthetic ganisms are known as the primary producers of the ocean - the organisms that form the base of aquatic food chains?

(a) Phytoplankton
(b) Zooplankton
(c) Bacterioplankton
(d) Virioplankton

Answer: (a)

11. Which of the following novels is correctly paired with its author?

(a) The Shadow Lines – RK Narayan
(b) Malgudi Days – Vikram Seth
(c) The Namesake – Jhumpa Lahiri
(d) Train to Pakistan – Amitav Ghosh

Answer: (c)

12. Which of the following is a communication mail channel in India?

(a) Pink channel
(b) Yellow channel
(c) Red channel
(d) Green channel

Answer: (d)

13. Under the umbrella of Ujjwal Bharat Ujjwal Bhavishya–Power @ 2047, the PM inaugurated which of the following 100 MW Solar Projects in Telangana?

(a) Jurala Solar Power Plant
(b) ReNew Solar Power Plant
(c) Ramagundam Floating Solar Project
(d) Dharmaraopet Solar Power Plant

Answer: (c)

14. What is the name of the geographic feature that serves as a boundary between Europe and Africa?

(a) Bosporus Strait
(b) Strait of Gibraltar
(c) Dardanelles Strait
(d) Malacca Strait

Answer: (b)

16. What is the primary purpose of microfinance institutions (MFIs) in India?

(a) To promote consumer spending among middle-class households
(b) To offer financial services exclusively to large businesses
(c) To provide small loans to low-income individuals
(d) To facilitate foreign investment in the Indian economy

Answer: (c)

18. Who among the following reformers initially set up a school for girls in Calcutta?

(a) Narayana Guru
(b) Mahatma Phule
(c) Swami Dayanand Saraswati
(d) Ishwar Chandra Vidyasagar

Answer: (d)

19. Bharhut Stupa is located in which of the following states?

(a) Punjab
(b) Madhya Pradesh
(c) Uttar Pradesh
(d) Bihar

Answer: (b)

20. The most famous of all Jain festivals, Mahamastakabhisheka is performed every 12 years at the Digambara sacred complex at _____ in Karnataka.

(a) Keelakuilkudi
(b) Jinanathapura
(c) Shravanabelagola
(d) Puliyarmala

Answer: (c)

21. Which religion has the maximum number of followers in Bhutan?

(a) Hindu
(b) Islam
(c) Buddhism
(d) Christian

Answer: (c)

22. The Madhavpur fair is held at _____.

(a) Bhatinda
(b) Moradabad
(c) Porbandar
(d) Jaisalmer

Answer: (c)

23. The former captain of the Indian women's hockey team _____ was conferred with the BBC Lifetime Achievement Award for her contribution to Indian sports and inspiring generations of players.

(a) Rani Rampal
(b) Vandana Katariya
(c) Savita Punia
(d) Pritam Siwach

Answer: (d)

24. Who among the following is a Bharatanatyam ar Kathakali dancer?

(a) Padma Subrahmanayam
(b) Sonal Mansingh
(c) Shovana Narayan
(d) Mrinalini Sarabhai

Answer: (d)

25. Which Article of the Constitution of India guarantees the right to move the Supreme Court for the enforcement of the fundamental rights?

(a) Article 21
(b) Article 32
(c) Article 25
(d) Article 29

Answer: (b)

English Language and Comprehension

1. Parts of the following sentence have been given as options. Select the option that contains an error.

Existentialism has a reputation for being angst-ridden and gloomy mostly because of its emphasis on pondering the meaningless of existence.

(a) on pondering the meaningless of existence
(b) mostly because of its emphasis
(c) Existentialism has a reputation
(d) for being angst-ridden and gloomy

Answer: (a)

2. Select the most appropriate option that can substitute the underlined segment in the given sentence.

To preparing the vine for plant, it should be cut back to 2 ft.

(a) prepares in vine in plant
(b) prepare a vine in planting
(c) prepared the vine of plant
(d) prepare the vine for planting

Answer: (d)

3. Select the most appropriate ANTONYM of the word given in brackets to fill in the blank. The student provided her English teacher a short and ___ __(incoherent) account of her journey to Shimla with her parents.

(a) humble
(b) lucid
(c) rough
(d) genuine

Answer: (b)

4. The following sentence has been split into four segments. Identify the segment that contains a grammatical error. I want to / give you / an information about / the missing necklace.

(a) an information about
(b) the missing necklace
(c) give you
(d) I want to

Answer: (a)

5. Identify the most appropriate meaning of the given word. Ancient

(a) Antique
(b) Unworn
(c) Contemporary
(d) Recent

Answer: (a)

6. Select the most appropriate option that can substitute the underlined segment in the given sentence.

They are sell their company's products to people.

(a) are sell the company
(b) are selling their company's
(c) was sell the company's
(d) is selling they company's

Answer: (b)

7. Select the most appropriate meaning of the underlined idiom. Mary is a ball of fire and is always engaged in something creative.

(a) An active and energetic person
(b) A dull and insipid person
(c) To be good and beneficial for someone
(d) A talkative person

Answer: (a)

8. Select the most appropriate idiom to fill in the blank. By living in a rural area with access to the city, she gets _____.

(a) the best of both worlds
(b) to keep an ear to the ground
(c) on cloud nine
(d) in for a penny in for a pound

Answer: (a)

10. Select the most appropriate meaning of the given idiom. Get your act together

(a) To have patience
(b) To stay together
(c) To act in a play
(d) Get organised and do things better

Answer: (d)

11. Select the option that can be used as a one-word substitute for the given group of words. Unpleasant

(a) Nebulous
(b) Natal
(c) Negligible
(d) Nasty

Answer: (d)

12. The following sentence has been divided into four parts. Identify the part that contains an error.
(A) The mother exclaimed /
(B) when she saw her son /
(C) stumble on the race track, /
(D) “Look, he fells!”

(a) B
(b) D
(c) C
(d) A

Answer: (b)

13. Select the most appropriate option that can rectify the underlined segment in the given sentence. If there is no need to rectify it, select ‘no rectification needed’.

The conductor said that it was the worse quake he ever knew.

(a) more bad
(b) bad
(c) no rectification needed
(d) worst

Answer: (d)

14. Select the most appropriate meaning of the underlined idiom in the following sentence.

After having invested so much time and energy into the project, we are now back to square one.

(a) Not ready for the consequence
(b) In the same city
(c) Fighting with each other
(d) Having to start all over again

Answer: (d)

15. Select the option that can be used as a one-word substitute for the given group of words. Killing of one’s own father

(a) Matricide
(b) Filicide
(c) Patricide
(d) Suicide

Answer: (c)

16. The sentence given below has spelling errors. Select the sentence without spelling errors. Though we read and hear a lot on green initiattive, we hardly tweak our routines to suite the larger picture.

(a) Though we read and hear a lot on green initiatives, we hardly tweak our routines to suit the larger picture.

(b) Throug we read and hear a lot on green initiatives, we hardly tweak our routines to suite the larger picture.

(c) Though we read and hear a lot on green initiatives, we hardly tweek our routines to suite the larger picture.

(d) Though we read and hear a lot on green iniciatives, we hardly tweak our routines to suite the larger picture.

Answer: (a)

17. Select the most appropriate synonym of the bracketed word in the following sentence to fill in the blank. The athlete's injury was a _____(defeat) for the team's chances of winning the championship.

(a) progression

(b) breakthrough

(c) stress

(d) setback

Answer: (d)

18. Select the INCORRECTLY spelt word.

(a) Parallel

(b) Recommend

(c) Irresistable

(d) Tomorrow

Answer: (c)

19. Select the correctly spelt word.

(a) Millennium

(b) Milennium

(c) Millenum

(d) Milenium

Answer: (a)

20. Select the most appropriate option that can substitute the underlined segment in the following sentence. She proposed to write the <u>life history</u> of the famous poet.

(a) novel

(b) biography

(c) mythology

(d) autobiography

Answer: (b)

Passage — for questions 21–25

> In the following passage, some words have been deleted. Read the passage carefully and select the most appropriate option to fill in each blank.
>
> Democracy is a form of government where the power lies _____(1) the people. It is based on the principles of equality, freedom and the rule of law. In a democratic society, _____(2) have the right to participate in the decision-making process, _____(3) directly or through elected representatives. Democracy also allows for the _____(4) of individual rights and liberties. While democracy is not without its challenges, such as the need to balance competing interests and the risk of _____(5) movements, it remains one of the most widely embraced forms of government around the world.

21. Select the most appropriate option to fill in blank no. 1.
    (a) towards
    (b) on
    (c) by
    (d) with

    Answer: (d)

22. Select the most appropriate option to fill in blank no. 2.
    (a) lawyers
    (b) humans
    (c) politicians
    (d) citizens

    Answer: (d)

23. Select the most appropriate option to fill in blank no. 3.
    (a) either
    (b) however
    (c) neither
    (d) also

    Answer: (a)

24. Select the most appropriate option to fill in blank no. 4.
    (a) delimitation
    (b) protection
    (c) diversion
    (d) proscription

    Answer: (b)

25. Select the most appropriate option to fill in blank no. 5.
    (a) marginal
    (b) elitist
    (c) populist
    (d) negligible

    Answer: (c)

Answer key

Answer key as marked in the Staff Selection Commission's response sheet. "—" means the sheet did not show it clearly.

Numerical and Mathematical Ability

1	**(d)**	4	**(b)**	6	**(b)**	7	**(d)**	8	**(d)**	9	**(c)**
12	**(c)**	14	**(d)**	15	**(b)**	16	**(a)**	17	**(b)**	18	**(d)**
19	**(a)**	20	**(d)**								

Reasoning Ability and Problem Solving

1	**(c)**	2	**(c)**	3	**(a)**	4	**(c)**	5	**(c)**	6	**(c)**
7	**(d)**	9	**(a)**	10	**(b)**	11	**(a)**	12	**(c)**	13	**(b)**
14	**(c)**	15	**(b)**	16	**(d)**	17	**(b)**	18	**(c)**	20	**(b)**

General Awareness

1	**(d)**	3	**(c)**	4	**(b)**	5	**(c)**	6	**(b)**	7	**(c)**
8	**(c)**	9	**(c)**	10	**(a)**	11	**(c)**	12	**(d)**	13	**(c)**
14	**(b)**	16	**(c)**	18	**(d)**	19	**(b)**	20	**(c)**	21	**(c)**
22	**(c)**	23	**(d)**	24	**(d)**	25	**(b)**				

English Language and Comprehension

1	**(a)**	2	**(d)**	3	**(b)**	4	**(a)**	5	**(a)**	6	**(b)**
7	**(a)**	8	**(a)**	10	**(d)**	11	**(d)**	12	**(b)**	13	**(d)**
14	**(d)**	15	**(c)**	16	**(a)**	17	**(d)**	18	**(c)**	19	**(a)**
20	**(b)**	21	**(d)**	[illegible]	**(d)**	23	**(a)**	24	**(b)**	25	**(c)**