PREVIOUS YEAR PAPER

SSC MTS 2023 — 6 September 2023, Shift 3

SSC MTS & Havaldar · 6 September 2023 · 4:00 PM - 6:00 PM

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

Left out of the original paper: 7 (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, 4:00 PM - 6:00 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-3/

Numerical and Mathematical Ability

1.

In what ratio should wheat of ₹34 per kg be mixed with wheat of ₹26 per kg so that on selling the mixture at ₹36 per kg, a profit of 20% is gained?

(a)

$1 : 1$

(b)

$2 : 3$

(c)

$1 : 2$

(d)

$3 : 4$

Answer: (a)

2.

A thief is noticed by a policeman from a distance of 98 m. The thief starts running and the policeman chases him. The thief and policeman run at the speed of 90 km/h and 118.8 km/h, respectively. What is the time taken to catch the thief by a policeman?

(a)

$14\frac{1}{4}$ sec

(b)

$10\frac{1}{2}$ sec

(c)

$13\frac{1}{4}$ sec

(d)

$12\frac{1}{4}$ sec

Answer: (d)

3.

A cube of side 3 cm is melted and smaller cubes of sides 1 cm each are formed. How many such cubes can be formed?

(a)

72

(b)

64

(c)

27

(d)

8

Answer: (c)

4.

What is the average of the prime numbers between 46 and 99, correct to two decimal places?

(a)

80.27

(b)

82.70

(c)

70.82

(d)

72.80

Answer: (c)

5.

If $a : b = 3 : 2$ and $b : c = 5 : 4$, then $a : b : c$ is:

(a)

11 : 8 : 10

(b)

8 : 10 : 15

(c)

15 : 10 : 8

(d)

7 : 10 : 15

Answer: (c)

8.

The areas of three adjacent faces of a cuboid are p, q and r unit^2, respectively. What is its volume?

(a)

$p^3q^3r^3$ unit^3

(b)

$\sqrt{pqr}$ unit^3

(c)

p q r unit^3

(d)

$\sqrt[3]{pqr}$ unit^3

Answer: (b)

9. What will be the amount due on ₹24,000 in 2 years when the rate of simple interest on successive years is 4% per annum and 5% per annum, respectively?

(a) ₹24,960

(b) ₹25,200

(c) ₹26,208

(d) ₹26,160

Answer: (d)

10.

Aslam can do a work in 20 days and Bansi in 30 days. If they work on it together for 5 days, then, what is the fraction of the remaining work?

(a)

$\frac{7}{13}$

(b)

$\frac{7}{12}$

(c)

$\frac{11}{12}$

(d)

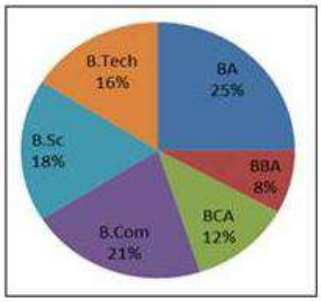
$\frac{5}{12}$

Answer: (b)

11.

The pie chart shows the percentage of students studying in different courses in a college.

The degree measure of angle for students studying in BBA is:



(a)

32°

(b)

36°

(c)

48.8°

(d)

28.8°

Answer: (d)

12.

Sonam covers 230 km in 5 hours. What dist[illegible]in [illegible] will she cover in 9 hours?

(a)

484

(b)

454

(c)

424

(d)

414

Answer: (d)

13.

The income of a person first increases by 25% and then decreases by 25%. What % is the new income of the original income?

(a)

$91\frac{1}{4}\%$

(b)

$93\frac{3}{4}\%$

(c)

$95\frac{3}{4}\%$

(d)

$92\frac{1}{4}\%$

Answer: (b)

14.

P, Q and R can complete a piece of work in 6 days, 12 days and 15 days, respectively. P starts working alone on 1st, 4th, 7th ..., Q works alone on 2nd, 5th, 8th... and R works alone on 3rd, 6th, 9th... This pattern is continued till the work is completed. In how much time (in days) is the entire work done?

(a)

$10\ \frac{3}{5}$

(b)

$9\ \frac{3}{10}$

(c)

$9\ \frac{1}{2}$

(d)

$10\ \frac{1}{2}$

Answer: (b)

15.

The ratio of cost price to selling price of an article is 186 : 206. The profit per cent on it is:

(a)

$12\frac{50}{93}$

(b)

$12\frac{70}{93}$

(c)

$10\frac{70}{93}$

(d)

$10\frac{50}{93}$

Answer: (c)

16.

If $A : B = \frac{1}{3} : \frac{1}{5}, B : C = \frac{1}{7} : \frac{1}{8}$ and $C : D = \frac{1}{10} : \frac{1}{21}$, then $A : B : C : D$ is:

(a)

$40 : 24 : 21 : 10$

(b)

$48 : 23 : 25 : 8$

(c)

$8 : 3 : 7 : 5$

(d)

$14 : 24 : 28 : 10$

Answer: (a)

17.

The table below shows the production of transformers by five different companies in the year 2022 from January to June. Study the table carefully and answer the question that follows.

Month/Company	P	Q	R	S	T
January	145	140	177	163	140
February	178	122	179	188	187
March	185	135	160	130	145
April	150	130	169	148	172
May	146	128	180	137	153
June	128	145	195	148	170

What is the difference between the total production of companies Q and R from the month January to June?

(a)

260

(b)

263

(c)

280

(d)

283

Answer: (a)

18.

Kavita bought a table at 30% discount on its original price. Sh[illegible]% increase on the price she bought it. What is the percentage difference between the new sale price and o[illegible]ice? If the original price is ₹8,000, then how much extra money did Kavita get as profit?

(a)

5.6%; ₹280

(b)

3.6%; ₹288

(c)

6%; ₹360

(d)

4.5%; ₹308

Answer: (b)

19.

What sum of money invested at 8% per annum in $1\frac{1}{2}$ years, compounded half-yearly, shall become ₹17,576?

(a)

₹ 16,500

(b)

₹ 15,000

(c)

₹ 15,525

(d)

₹ 15,625

Answer: (d)

20.

Simplify:

$(15 \div 3) \div 5 + (18 \div 9) \times 3 + (24 \div 6) \times (5 \div 4) = ?$

(a)

12

(b)

1

(c)

16

(d)

21

Answer: (a)

Reasoning Ability and Problem Solving

2.

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

AC_F GIJ_ M_PR _UVX YA_D

(a)
LODBS

(b)
DKOBS

(c)
DLOSB

(d)
HFBHC

Answer: (c)

3.

If 16 September 1980 is a Tuesday, then what will be the day of the week on 3 September 1985?

(a)
Tuesday

(b)
Saturday

(c)
Friday

(d)
Sunday

Answer: (a)

4.

What will come in the place of '?' in the following equation, if '+' and '–' are interchanged and '×' and '÷' are interchanged?
$321 \times 3 + 81 - 12 \div 8 = ?$

(a)
132

(b)
122

(c)
142

(d)
112

Answer: (b)

5.

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

KFY, LGA, MHC, NIE, ?

(a)

OJG

(b)

MIH

(c)

NJG

(d)

MKI

Answer: (a)

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 bats are curtains. All curtains are yellow. All yellow are pens.

Conclusion I: All yellow are curtains.

Conclusion II: Some pens are curtains.

(a)

Only conclusion (I) is follow.

(b)

Both conclusions (I) and (II) are fol

(c)

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

(d)

Only conclusion (II) is follow.

Answer: (d)

7.

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

HWC, KUD, NSE, QQF, ?

(a)
RMH
(b)
ROF
(c)
SNH
(d)
TOG

Answer: (d)

8.

27 is related to 36 following a certain logic. Following the same logic, 69 is related to 78. To which of the following is 53 related to, following the same logic?

(a)
63
(b)
64
(c)
62
(d)
61

Answer: (c)

9.

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

56 54 50 48 44 ?

(a)
40
(b)
38
(c)
42
(d)
36

Answer: (c)

10.

R, S, T, U, V, W, X and Y are sitting around a square table facing the center of the table. Some of them are sitting at the corners while some are sitting at the exact center of the sides. R is the immediate neighbour of X and Y. X sits in any of the corners. W sits third to the right of T. T does not sit in any of the corners. U is the immediate neighbour of Y and W.V is not the neighbour of W.

How many people sit between W and T, when counted from the right of W?

(a)

Four

(b)

Five

(c)

Two

(d)

Three

Answer: (a)

11.

If 'P' stands for '×', 'Q' stands for '+', 'R' stands for '-' and 'S' stands for '÷', what will come in place of the question mark (?) in the following equation?
39 S 6 P 9 R 32 S 15 P 8 R 70 = ?

(a)

111

(b)

88

(c)

91

(d)

119

Answer: (a)

13.

28 is related to 12 following a certain logic. Following the same logic, 42 is related to 19.To which of the following is 52 related to, following the same logic?

(a)

23

(b)

25

(c)

24

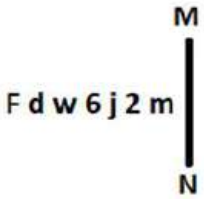
(d)

22

Answer: (c)

14.

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



(a)

m S ʃ ə w b F

(b)

2 m ¡ ə w b Ⅎ

(c)

m S ¡ ə w b Ⅎ

(d)

m S ¡ ə ʍ d Ⅎ

Answer: (c)

15.

In a certain code language, 'MACABRE' is coded as '8' and 'HEDONISM' ded as '9'. What is the code for 'ERUPT' in the given code language?

(a)

8

(b)

6

(c)

5

(d)

7

Answer: (b)

16.

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: All flowers are orange. Some orange is colour. All colours are bright.

Conclusion I: Some orange are flowers.

Conclusion II: All colour is orange.

(a)

Only conclusion (I) is follow.

(b)

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

(c)

Only conclusion (II) is follow.

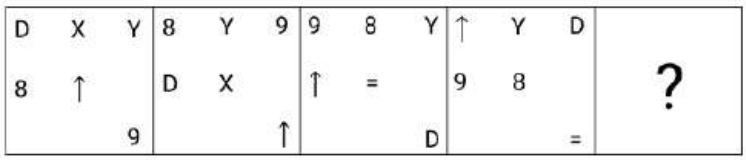
(d)

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

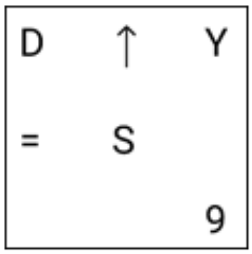
Answer: (a)

17.

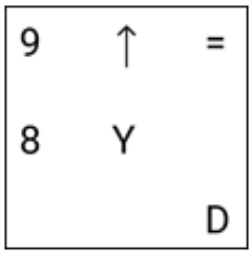
Which figure should replace the question mark (?) if the following figure series were to be continued?



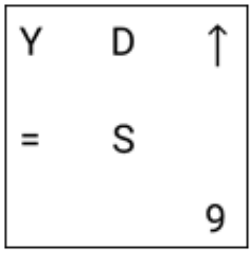
(a)



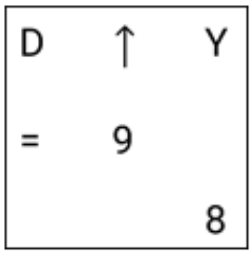
(b)



(c)



(d)



Answer: (a)

18.

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)

19.

In a certain code language, 'never lose hope' is coded as 'tu fk mb' and 'winners never quit' is coded as 'dg vc fk'.
How is 'never' coded in the given language?

(a)
vc
(b)
tu
(c)
fk
(d)
dg

Answer: (c)

General Awareness

1. Which of the following countries did India beat to win the Men's Hockey Junior Asia Cup 2023?
   (a) South Korea
   (b) Thailand
   (c) Pakistan
   (d) Japan
   Answer: (c)

2. In the realm of soil science, humus is considered
   (a) synthetic additive
   (b) decaying organic matter in soil
   (c) mineral-rich compound
   (d) inorganic material
   Answer: (b)

3. Which group of crops belong to fibre crops and are produced on a large scale in India?
   (a) Gram and tur
   (b) Jute and hemp
   (c) Tea and coffee
   (d) Wheat and rice
   Answer: (b)

4. Name the life-threatening disease caused by protozoa of the genus Trypanosoma that is transmitted to human hosts through the bite of infected tsetse flies.
   (a) Sleeping sickness
   (b) Chagas disease
   (c) Giardiasis
   (d) Kala-azar
   Answer: (a)

5. Who is an acclaimed Kathak dancer with many awards to his credit?

(a) Pandit Shiv Kumar Sharma
(b) Ustad Alla Rakha
(c) Pandit Birju Maharaj
(d) Ustad Bismillah Khan

Answer: (c)

6. 'Pinjar' is a novel by _____.

(a) Kiran Desai
(b) Kamala Das
(c) Anita Desai
(d) Amrita Pritam

Answer: (d)

7. When was the Asian Games organised in India for the second time?

(a) 1994
(b) 1986
(c) 1982
(d) 1998

Answer: (c)

8. Who nominates members to the Rajya Sabha based on their excellence in literature, science, art and social service?

(a) The Chief Justice of India
(b) The President
(c) The Chairman of the Rajya Sabha
(d) The Prime Minister

Answer: (b)

9. Which Indian musician is associated with the Flute?

(a) Pandit Hari Prasad Chaurasia
(b) Ustad Zakir Hussain
(c) Pandit Ravi Shankar
(d) Ustad Allahrakha

Answer: (a)

10. The black soil area of the _____ is known as the Deccan Trap.

(a) Northern Plains
(b) Peninsular Plateau
(c) Coastal Plains
(d) Himalayan Mountains

Answer: (b)

11. When did the British East India Company start the ‘permanent settlement system’?

(a) 1793 CE
(b) 1773 CE
(c) 1799 CE
(d) 1780 CE

Answer: (a)

12. The word ‘Swaraj’ was first used by Dadabhai Naoroji in the Congress session held in which place?

(a) Madras
(b) Surat
(c) Calcutta
(d) Lucknow

Answer: (c)

13. Chhau, identified by the Ministry of Culture as a classical dance, is prevalent in eastern India and has three distinct forms. Which of the following is NOT one of them?

(a) Seraikela Chhau of Jharkhand
(b) Marwahi Chhau of Chhattisgarh
(c) Purulia Chhau of West Bengal
(d) Mayurbhanj Chhau of Odisha

Answer: (b)

14. According to the Global Multidimensional Poverty Index 2022, which of the following states is NOT included in 10 poorest states?

(a) Gujarat
(b) Assam
(c) Odisha
(d) Uttar Pradesh

Answer: (a)

15. Which Clause of Article 19 of the Indian Constitution guarantees the ‘right to move freely throughout the territory of India’?

(a) Clause (b)
(b) Clause (c)
(c) Clause (d)
(d) Clause (a)

Answer: (c)

17. The President of India conferred the Padma Shri award to Sanathoiba Sharma for his distinguished service in the field of _____ in 2023.

(a) Mukna
(b) Khong Kangjei
(c) Thang-Ta
(d) Yubi Lakpi

Answer: (c)

18. Rikham pada dance belongs to which of the following states?

(a) Meghalaya
(b) Assam
(c) Mizoram
(d) Arunachal Pradesh

Answer: (d)

19. Which theory was published by John Dalton in 1808 to explain chemical reactions?

(a) Atomic theory
(b) Valence bond theory
(c) Quantum field theory
(d) Molecular orbital theory

Answer: (a)

20. What is the main function of money in an econor

(a) To regulate interest rates
(b) To create wealth
(c) To facilitate exchange
(d) To control inflation

Answer: (c)

21. Who among the following designed the India Gate?

(a) Lord Wavell
(b) Lord Dalhousie
(c) Edwin Lutyens
(d) John Nash

Answer: (c)

22. In 2022, the Centre constituted a committee headed by former Union Agriculture Secretary _____ to look into the issues of minimum support price (MSP).

(a) Sanjay Agrawal
(b) P Chandrashekhar
(c) Radha Mohan Singh
(d) JP Sharma

Answer: (a)

23. One of the prominent festivals celebrated in _____ is the 'Me-Dum-Me-Phi', i.e., the ancestor worship festival.

(a) Assam
(b) Nagaland
(c) Manipur
(d) Meghalaya

Answer: (a)

25.

'The Fall of a Sparrow' is an autobiography of _____.

(a)
Salim Ali
(b)
Raj Kapoor
(c)
Kapil Dev
(d)
Atal Bihari Vajpayee

Answer: (a)

English Language and Comprehension

1. Select the most appropriate meaning of [illegible]iom. Be like chalk and cheese

(a) To be completely different from each oth[illegible]
(b) To be very similar to each other
(c) To have a close relation with another person
(d) To be distantly related to each other

Answer: (a)

2. Select the most appropriate ANTONYM of the underlined word. Everyone liked the lively music being played at the restaurant.

(a) Durable
(b) Cheerful
(c) Speedy
(d) Sombre

Answer: (d)

3. Select the INCORRECTLY spelt word.

(a) Fourty
(b) Committee
(c) Hypnotic
(d) Tennessee

Answer: (a)

4. Select the option that can be used as a one-word substitute for the underlined segment in the following sentence. Raymond has opted the study of religion as his major subject in graduation.

(a) Psephology
(b) Philology
(c) Theology
(d) Psychology

Answer: (c)

5. Select the most appropriate idiom from the given options to fill in the blank. Greta Thunberg _____ when she dared to question about accountability with respect to global warming and climate change.

(a) sowed wild oats
(b) kept the pot boiling
(c) gave the devil his due
(d) hit the nail on the head

Answer: (d)

6. Select the most appropriate option that can substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'. When Rajesh was going to college, he meet with an accident.

(a) has met
(b) meets
(c) met
(d) No substitution required

Answer: (c)

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

As soon as I shall win the lottery, I hope to buy a Ferrari.

(a) hope
(b) As soon as
(c) shall win
(d) a Ferrari

Answer: (c)

8. Select the most appropriate option to fill in the blank.

Some things are meant to be, and death is _____ for humans.

(a) edible
(b) spiral
(c) natural
(d) viral

Answer: (c)

9. Select the option that rectifies the spelling of the underlined word in the given sentence.

They complained that their manager was incompietent and knew nothing about the project.

(a) incompitent
(b) incompeteant
(c) incomepetent
(d) incompetent

Answer: (d)

10. Select the most appropriate synonym of the given word. Distinguished

(a) Mirrored
(b) Dignified
(c) Dramatic
(d) Mediocre

Answer: (b)

11. Select the most appropriate ANTONYM of the given word. Periodic

(a) Holistic
(b) Dynamic
(c) Irregular
(d) Tedious

Answer: (c)

12. The following sentence has been split into four segments. Identify the segment that contains an error. Manisha saw an old elephant / in the wildlife reserve / while she was / on safari tour.

(a) on safari tour
(b) Manisha saw an old elephant
(c) while she was
(d) in the wildlife reserve

Answer: (a)

13. Parts of the following sentence have been given as options. Select the option that contains an error. In Nepal, the food is more cheaper than in Sri Lanka.

(a) more cheaper
(b) the food is
(c) than in Sri Lanka
(d) In Nepal

Answer: (a)

14. Select the most appropriate option to fill in the blank. Most times, he is sitting alone, immersed in his own _____.

(a) synagogue
(b) monologue
(c) mystagogue
(d) prologue

Answer: (b)

15. Identify the INCORRECTLY spelt word in the following sentence and select its correct spelling from the given options. He has neither the policies nor the persanol charisma to inspire people.

(a) cherisma
(b) polecies
(c) personal
(d) niether

Answer: (c)

16. Select the most appropriate meaning of the underlined idiom.

The judge wanted to hear straight from the horse's mouth.

(a) Directly from the lawyer
(b) Directly from the person involved
(c) In close vicinity to the juror
(d) Having ears which never fail

Answer: (b)

17. Select the most appropriate option that can substitute the underlined segment in the given sentence. If there is no need to substitute it, select 'No substitution required'. Virtual reality is the creation of a virtual environment presented to our senses in such a way that we experience it as if we were really there.

(a) presenting to our senses
(b) presenting in our senses
(c) presents to our senses
(d) No substitution required

Answer: (d)

18. Select the most appropriate idiom from the given options to fill in the blank. Being a journalist, your first duty is to _____ or else your colleagues might surpass you.

(a) eat a humble pie
(b) have an axe to grind
(c) build castles in the air
(d) keep your ear to the ground

Answer: (d)

19. The following sentence has been divided into four parts. Identify the part that contains an error.
(A) He will come /
(B) and receive you /
(C) at the station /
(D) when you will arrive.

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

Answer: (d)

20. The following sentence has been split into four segments. Identify the segment that contains a grammatical error.

She is very good / in playing / the guitar / and singing songs.

(a) in playing
(b) and singing songs
(c) the guitar
(d) She is very good

Answer: (a)

Passage — for questions 21–25

> In the following passage, some words have been dele . Read the passage carefully and select the most appropriate option to fill in each blank. Environ tal pollution is a growing (1)_____ all around the world as it poses significant risks to human hea and ecosystems. The (2)_____ of environmental pollution vary from natural s as volcanic emissions to human actions, including industrialisation, transportation, ene duction and agricultural practices. (3)_____ of these activities, pollutants are released into the air, water bodies and soil leading to harmful effects such as respiratory diseases, loss of biodiversity and climate change. One of the primary causes of environmental pollution is human attitudes towards sustainability (4)_____ their lack of environmental awareness. Human activities that harm the environment and ecosystem often result from individual choices (5)_____ driving or using single-use plastics.

21. Select the most appropriate option to fill in blank number 1.

(a) interest
(b) duty
(c) concern
(d) charge

Answer: (c)

22. Select the most appropriate option to fill in blank number 2.

(a) sourcing
(b) sources
(c) sourced
(d) source

Answer: (b)

23. Select the most appropriate option to fill in blank number 3.
    (a) Since
    (b) However
    (c) As a result
    (d) Therefore

    Answer: (c)

24. Select the most appropriate option to fill in blank number 4.
    (a) and
    (b) since
    (c) but
    (d) because

    Answer: (a)

25. Select the most appropriate option to fill in blank number 5.
    (a) example
    (b) while
    (c) like
    (d) instance

    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	**(a)**	2	**(d)**	3	**(c)**	4	**(c)**	5	**(c)**	8	**(b)**	9	**(d)**	10	**(b)**		
11	**(d)**	12	**(d)**	13	**(b)**	14	**(b)**	15	**(c)**	16	**(a)**	17	**(a)**	18	**(b)**		
19	**(d)**	20	**(a)**														

Reasoning Ability and Problem Solving

2	**(c)**	3	**(a)**	4	**(b)**	5	**(a)**	6	**(d)**	7	**(d)**	8	**(c)**	9	**(c)**		
10	**(a)**	11	**(a)**	13	**(c)**	14	**(c)**	15	**(b)**	16	**(a)**	17	**(a)**	18	**(b)**		
19	**(c)**																

General Awareness

1	**(c)**	2	**(b)**	3	**(b)**	4	**(a)**	5	**(c)**	6	**(d)**	7	**(c)**	8	**(b)**		
9	**(a)**	10	**(b)**	11	**(a)**	12	**(c)**	13	**(b)**	14	**(a)**	15	**(c)**	17	**(c)**		
18	**(d)**	19	**(a)**	20	**(c)**	21	**(c)**	22	**(a)**	23	**(a)**	25	**(a)**				

English Language and Comprehension

1	**(a)**	2	**(d)**	3	**(a)**	4	**(c)**	5	**(d)**	6	**(c)**	7	**(c)**	8	**(c)**		
9	**(d)**	10	**(b)**	11	**(c)**	12	**(a)**	[illegible]	**(a)**	14	**(b)**	15	**(c)**	16	**(b)**		
17	**(d)**	18	**(d)**	19	**(d)**	20	**(a)**	[illegible]	**(c)**	22	**(b)**	23	**(c)**	24	**(a)**		
25	**(c)**																