PREVIOUS YEAR PAPER

SSC MTS 2023 — 13 September 2023, Shift 2

SSC MTS & Havaldar · 13 September 2023 · 12:30 PM - 2:30 PM

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

Left out of the original paper: 8 (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 13 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-2023-13-sep-shift-2/

Numerical and Mathematical Ability

1.

A policeman sees a thief and starts chasing him. The distance between the thief and the policeman is 200 m and the speed of the thief is 8 km/h. If the policeman was able to catch the thief in 20 minutes, then the speed of the policeman is _____ km/h.

(a) 8.4

(b) 9.2

(c) 8.6

(d) 8.2

Answer: (c)

2.

What sum of money (in ₹) will amount to ₹20,400 at the rate of 9% per annum simple interest in four years?

(a) 18,000

(b) 12,000

(c) 20,000

(d) 15,000

Answer: (d)

3.

A medical store owner purchased medicines worth ₹18,000 from a company. He sold 2/5 part of the medicine at a 35% loss. On which gain, he should sell the rest of the medicines so that he has neither gain nor loss?

(a)

$23\frac{2}{3}\%$

(b)

$20\frac{2}{3}\%$

(c)

$20\frac{1}{3}\%$

(d)

$23\frac{1}{3}\%$

Answer: (d)

4.

A mixture contains spirit and water in the ratio 3 : 2. If 2 litres of water is added to the mixture, the ratio becomes 5 : 4. Find the quantity of spirit in the mixture (in litres).

(a)

15

(b)

20

(c)

25

(d)

10

Answer: (a)

5.

A table showing the percentages of the total population of a Town by age group for the year 2016 is given below.

Age Group (in years)	Per cent
up to 15	35
16-30	18.5
30-40	12.5
40-50	25.77
51 and above	8.23

Out of every 1920 persons, the number of persons below 16 years is:

(a)

672

(b)

355

(c)

312

(d)

1027

Answer: (a)

7.

The LCM of the two numbers is 1440 and their HCF is 32. If the first numbe .88, then find the second number.

(a)

150

(b)

145

(c)

180

(d)

160

Answer: (d)

8.

A lady travels a distance of 150 metres in 30 minutes and the next 350 metres in 50 minutes. Her average speed during the whole journey is:

(a)

$\frac{21}{24}$ km/h

(b)

$\frac{11}{24}$ km/h

(c)

$\frac{9}{24}$ km/h

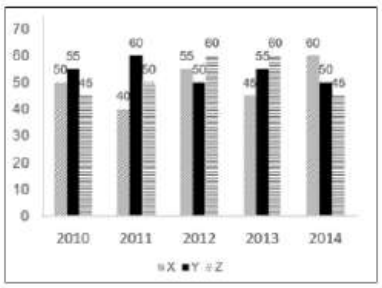
(d)

$\frac{7}{24}$ km/h

Answer: (c)

9.

The graph shows the production of tyres (in Lakhs) by three different companies X, Y, and Z over the years.
Directions: Study the following graph carefully to answer the question given below it.



What is the difference between the production of company Z in 2010 and the production of company X in 2014?

(a)

20 lakhs

(b)

15 lakhs

(c)

10 lakhs

(d)

5 lakhs

Answer: (b)

10.

Three years ago, the value of car was ₹2,50,000. If the value depreciates by 6% every year, its value now is:

(a)

₹2,04,676

(b)

₹2,07,646

(c)

₹2,07,466

(d)

₹2,04,766

Answer: (b)

11.

The income of A and B are in the ratio of 5 : 4 and the income of B and C are in the ratio of 5 : 6. What is the ratio of incomes of A and C?

(a)

5 : 6

(b)

24 : 25

(c)

25 : 24

(d)

6 : 5

Answer: (c)

12.

Find the volume a cube, each of whose sides measures 7 cm.

(a)

$343\ cm^3$

(b)

$282\ cm^3$

(c)

$294\ cm^3$

(d)

$49\ cm^3$

Answer: (a)

13.

A person crosses a 750 m long street in 5 minutes. Find his speed in km/h.

(a)

8.40

(b)

9.00

(c)

7.20

(d)

10.80

Answer: (b)

14.

While calculating the average marks of a class, the score increased by 0.5 when marks of one student is wrongly entered as 54 instead of 45. The number of students in the class is:

(a)

36

(b)

18

(c)

45

(d)

54

Answer: (b)

15.

Two cuboids of dimension 2×3×4units and 2×5×4units are melted and a single cube is made. What is the side of the cube in units?

(a)

3.5

(b)

3.0

(c)

4.0

(d)

2.5

Answer: (c)

16.

Simplify the following expression.

$$\left(\frac{5}{3}+\frac{6}{5}\div\frac{18}{5}\right)\text{ of }\frac{5}{12}-\left(\frac{5}{6}\div\frac{5}{12}\right)\text{ of }\frac{5}{12}+\frac{2}{3}\text{ of }\frac{3}{2}$$

(a)

1

(b)

$\frac{5}{6}$

(c)

$\frac{6}{5}$

(d)

0

Answer: (a)

17.

A can complete a piece of work in 40 days and B can complete the same work in 60 days. They work together for 8 days. How much work is left?

(a)

$\frac{2}{5}$

(b)

$\frac{1}{5}$

(c)

$\frac{2}{3}$

(d)

$\frac{1}{3}$

Answer: (c)

18. Ramesh purchased a bag for ₹1,275 and sold it at a gain of 15% but calculated on the selling price. Find the selling price of the bag.

(a) ₹1,325

(b) ₹1,400

(c) ₹1,475

(d) ₹1,500

Answer: (d)

20.

A and B can do a piece of work in 5 days. B and C can do the same work in 8 days, while C and A can do it in 16 days. Find the time (in days) in which A, B and C can finish the work, working together.

(a)

$5\frac{4}{31}$

(b)

$4\frac{5}{31}$

(c)

$5\frac{5}{17}$

(d)

$5\frac{5}{31}$

Answer: (d)

Reasoning Ability and Problem Solving

2.

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?
9 P 9 R (7 P 3) S 24 R 6 P 2 = ?

(a)

76

(b)

72

(c)

63

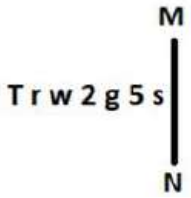
(d)

54

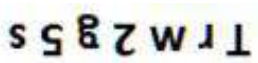
Answer: (b)

3.

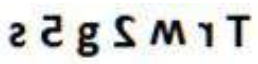
Select the correct mirror image of the given figure when the mirror is placed at MN as shown below.



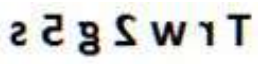
(a)



(b)



(c)



(d)



Answer: (c)

4.

Select the word-pair that best represents a similar relationship to the one exp sed in the pair of words given below.

(The words must be considered as meaningful English words and must no related to each other based on the number of letters/number of consonants/vowels in the word)

Lava : Volcano

(a)

Avalanche : Ice

(b)

Ice : Glass

(c)

Steam : Geyser

(d)

Cascade : Precipice

Answer: (c)

5.

In a certain code language, 'krishi might be coming' is written as 'gi ji hi fi' and 'prem will be going' is written as 'li mi ri hi'. How is 'be' written in the given language?

(a)
li
(b)
ri
(c)
hi
(d)
mi

Answer: (c)

6.

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

16 20 28 40 56 ?

(a)
78
(b)
69
(c)
75
(d)
76

Answer: (d)

8.

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

15 G 10 D 30 B 43 F 28 = ?

(a)
30
(b)
20
(c)
25
(d)
10

Answer: (b)

9.

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

46 ? 358 1060 3166 9484 28438

(a)
132

(b)
122

(c)
116

(d)
124

Answer: (d)

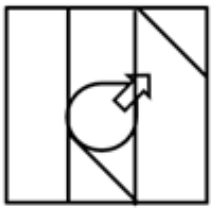
10.

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

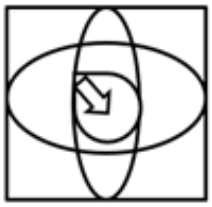


(X)

(a)



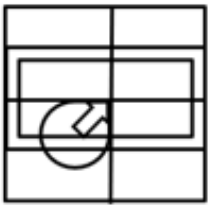
(b)



(c)



(d)



Answer: (d)

11.

12 is related to 59 following a certain logic. Following the same logic, 17 is related to 84. To which of the following is 19 related to, following the same logic?

(a)

91

(b)

94

(c)

93

(d)

92

Answer: (b)

12.

In a certain code language, 'DEAF' is coded as '5718' and 'HEAD' is coded as '8137'. What is the code for 'H' in the given code language?

(a)

1

(b)

3

(c)

8

(d)

7

Answer: (b)

13.

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

YIQ, AKR, CMS, EOT, ?

(a)

HPV

(b)

GQU

(c)

FPU

(d)

FRV

Answer: (b)

14.

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

FQS, IUT, LYU, OCV, ?

(a)

QFV

(b)

QHU

(c)

SHV

(d)

RGW

Answer: (d)

15.

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 wool is crochet. Some crochet are skirts. All skirts are bread.

Conclusion I: Some crochet is wool.

Conclusion II: Some bread is crochet.

(a)

Neither conclusion (I) nor (II) is follov

(b)

Only conclusion (I) is follow.

(c)

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

(d)

Only conclusion (II) is follow.

Answer: (c)

16.

K, L, M, N, O, P, Q and R 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 sits second to the right of Q. Q sits in one of the corners. M sits third to the left of N. M does not sit in any of the corners. O is the immediate neighbour of Q and R. K is not the neighbour of N. L sits third to the left of R.

How many people sit between K and Q, when counted from the right of K?

(a)

Two

(b)

One

(c)

Three

(d)

Four

Answer: (c)

17.

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 chairs are fans. All fans are pots. Some pots are hot.

Conclusion I: Some fans are chairs.

Conclusion II: Some hot are pots.

(a)

Only conclusion (I) is follow.

(b)

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

(c)

Only conclusion (II) is follow.

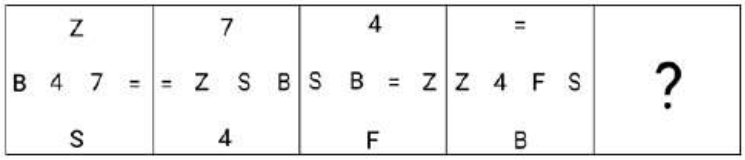
(d)

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

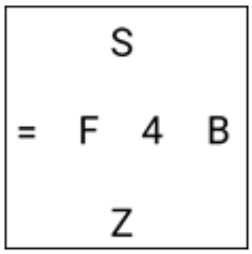
Answer: (b)

19.

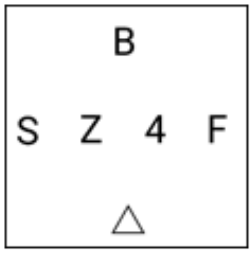
Which figure should replace the question mark (?) if the following figure series were to be continued?



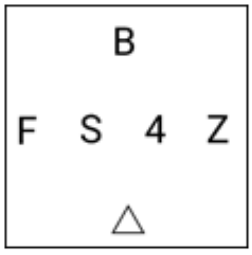
(a)



(b)



(c)



(d)



Answer: (d)

20.

If 7th Nov 2005 is Monday, then what will be the day of the week on 17th Nov 2015?

(a)

Monday

(b)

Tuesday

(c)

Saturday

(d)

Friday

Answer: (b)

General Awareness

1. The novel 'God of Small Things' is a creation of which novelist?

(a) Kamala Das

(b) Amrita Pritam

(c) Ashapurna Devi

(d) Arundhati Roy

Answer: (d)

2. Which of the following terms best describes the erage number of runs a batter makes per 100 deliveries in cricket?

(a) Economy rate

(b) Batting average

(c) Strike rate

(d) Batting rate

Answer: (c)

3. Yuki Bhambri and Saketh Myneni won the Bangkok Open Challenger title 2023. They are related to which sport?

(a) Badminton

(b) Squash

(c) Tennis

(d) Table Tennis

Answer: (c)

4. Deba Prasad Das, Pankaj Charan Das and Gangadhar Pradhan are associated with which of the following dance forms?

(a) Odissi
(b) Bharatanatyam
(c) Manipuri
(d) Kathak

Answer: (a)

5. Which of the following is NOT a fundamental duty listed in the Indian Constitution?

(a) To uphold and protect the sovereignty, unity and integrity of India
(b) To engage in political activities to promote democracy
(c) To value and preserve the rich heritage of our composite culture
(d) To safeguard public property and to abjure violence

Answer: (b)

6. As of 2022, 12-feet statue of Adi Shankaracharya, which was unveiled by the Prime Minister of India is located in _____

(a) Pune
(b) Ahmedabad
(c) Varanasi
(d) Kedarnath

Answer: (d)

7. During cell division, the formation of a new cell w s followed by the accumulation of:

(a) peristome
(b) periplasm
(c) phragmoplast
(d) protoplast

Answer: (c)

8. Bhanu Ji is associated with which of the following Gharanas of Kathak?

(a) Lucknow
(b) Raigarh
(c) Banaras
(d) Jaipur

Answer: (d)

9. Which of the following is an example of capital expenditure in the government budget?

(a) Interest payment on a loan
(b) Purchase of military equipment
(c) Maintenance of government buildings
(d) Subsidies provided to farmers

Answer: (b)

10. FIH Men's Hockey World Cup 2023 was held in which Indian state/UT?

(a) Maharashtra
(b) New Delhi
(c) Odisha
(d) Gujarat

Answer: (c)

11. An image of which of the following elements is shown by the map of Cyprus from which the element got its name?

(a) Silver
(b) Cobalt
(c) Copper
(d) Sulphur

Answer: (c)

12. Consider the following statements about Abhinav Bharat Society.

1) The society was a community of socialists believed in an armed revolution.
2) The society was founded by Jaya Prakash Narayan.
3) Mitra Mela, a revolutionary secret society was renamed Abhinav Bharat in 1904.

Select the correct statement(s) using the codes given below.

(a) Both 1 and 2
(b) 1, 2 and 3
(c) Both 2 and 3
(d) Both 1 and 3

Answer: (d)

15. Who is the first female classical dancer in Indian history to be nominated as a Member of Rajya Sabha, the upper house of the Parliament of India?

(a) Mukti Mohan
(b) Shobha Naidu
(c) Sanjukta Panigrahi
(d) Rukmini Devi Arundale

Answer: (d)

16. What does the term ‘Overdraft’ mean in banking?

(a) The process of transferring funds between bank accounts
(b) The maximum withdrawal limit from an ATM
(c) Short-term financing facility
(d) The interest charged on loans

Answer: (c)

17. Which of the following is an example of Eastern Ghats peak?

(a) Doddabetta
(b) Mahendragiri
(c) Guru Shikhar
(d) Anamudi

Answer: (b)

18. Indian musician, Pandit Hari Prasad Chaurasia used to play which of the following musical instruments?

(a) Veena
(b) Flute
(c) Sarangi
(d) Guitar

Answer: (b)

19. Which of the following was the first major and decisive victory for the East India Company on the soil of India?

(a) Battle of Sindhuli
(b) First Anglo-Maratha War
(c) Battle of Plassey
(d) Battle of Tiruvannamalai

Answer: (c)

20. Which of the following locations receives the m rainfall in India?

(a) Prayagraj
(b) Guwahati
(c) Jaisalmer
(d) Mawsynram

Answer: (d)

21. According to the Census of India 2011, what was the literacy rate recorded in Kerala?

(a) 85.8%
(b) 90.3%
(c) 87.9%
(d) 94.0%

Answer: (d)

22. The Digital Lok Adalat, powered by AI (Artificial Intelligence) and Blockchain, was launched by the then National Legal Services Authority Chairman _____ during the 18th All India Legal Services Authorities' meet held in Jaipur in July 2022.

(a) Justice RN Mishra
(b) Justice DY Chandrachud
(c) Justice AS Anand
(d) Justice Uday Umesh Lalit

Answer: (d)

23. Janmashtami is a Hindu festival that celebrates the birth (janma) of the god, Krishna on the eighth (ashtami) day of the dark fortnight of the Hindu month of _____.

(a) Bhadrapada
(b) Ashwin
(c) Shravan
(d) Ashadha

Answer: (a)

24. Which of the following music directors is known as 'Mozart of Madras'?

(a) AR Rahman
(b) Madan Mohan
(c) RD Burman
(d) Himesh Reshammiya

Answer: (a)

25. What is the tenure of the Vice-President of India?

(a) Until the age of 65
(b) Until he wants to hold the office
(c) 6 years
(d) 5 years

Answer: (d)

English Language and Comprehension

1. Select the most appropriate option that c[illegible]ute the underlined segment in the given sentence.

If I hand her a flower and say, "Give it to mamma," she take it to her mother.

(a) was taking it
(b) takes it
(c) had took it
(d) had taken it

Answer: (b)

2. Select the most appropriate ANTONYM of the given word. Divergent

(a) Addition
(b) Similar
(c) Disrespectful
(d) Obvious

Answer: (b)

3. Parts of the following sentence have been underlined and given as options. Select the option that contains an error. To much seriousness hardens the world, pinning it down with rules.

(a) with rules
(b) hardens the
(c) to much
(d) world, pinning

Answer: (c)

4. Select the most appropriate meaning of the underlined idiom. He managed to save his father's business by the sweat of his brow.

(a) incidentally
(b) hard work
(c) tricks and strategies
(d) any way possible

Answer: (b)

5. Select the option that can be used as a one-word substitute for the given phrase. A place where water is collected and stored for future use.

(a) Aquarium
(b) Resort
(c) Sanatorium
(d) Reservoir

Answer: (d)

7. The following sentence has been divided into four parts. Identify the part that contains an error.
(A) The institute /
(B) have been /
(C) divided into /
(D) multiple departments

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

Answer: (b)

8. Select the option that can be used as a one-word substitute for the underlined group of words.

They allowed us to powder by crushing the spices, pick over the raisins and lick the stirring spoons.

(a) gain
(b) greet
(c) guess
(d) grind

Answer: (d)

9. Select the most appropriate synonym of the given word. Mild

(a) Scathing

(b) Brittle

(c) Gentle

(d) Severe

Answer: (c)

10. Select the most appropriate idiom to fill in the blank. Instead of answering the question directly, the politician kept _____.

(a) crying over spilt milk

(b) pointing at his laurels

(c) beating around the bush

(d) spilling the bean

Answer: (c)

11. Select the most appropriate option that can substitute the underlined segment in the given sentence. Rishi asked Karan will he get a new football for him?

(a) would he get a new football for him?

(b) if he would get a new football for him.

(c) if would he get a new football for him?

(d) if he will get a new football for him?

Answer: (b)

12. Select the INCORRECTLY spelt word.

(a) Omitted

(b) Retrospact

(c) Conscience

(d) Admission

Answer: (b)

13. Select the most appropriate ANTONYM of the given word. Often

(a) Generally

(b) Rarely

(c) Periodically

(d) Usually

Answer: (b)

14. Parts of the following sentence have been given as options. Select the option that contains an error. The boy whose the sister is ill has left.

(a) is ill

(b) has left

(c) The boy

(d) whose the sister

Answer: (d)

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

A strong _____ for mathematics and problem-solving can be very useful.

(a) strength
(b) aptitude
(c) functioning
(d) perception

Answer: (b)

16. Select the INCORRECTLY spelt word.

(a) Recommendation
(b) Priviledge
(c) Affiliate
(d) Parachute

Answer: (b)

17. Select the most appropriate idiom to fill in the blank. My manager forced me to resign from my job as a chef since I underwent a spine surgery. I was depressed and had lost all hope. Later my father motivated me to open my own café and showed me ways to be independent. After all it is true that one should not _____.

(a) grease the palm
(b) blow one's own trumpet
(c) cry over spilt milk
(d) blow hot and cold

Answer: (c)

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

He was quaking in his boots when he had to give a speech on the stage.

(a) To tremble in excitement
(b) To shake in happiness
(c) To tremble with fear
(d) To shake in excitement

Answer: (c)

19. 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'. If I will get good marks, my father will buy me a laptop.

(a) No substitution required
(b) am getting
(c) gets
(d) get

Answer: (d)

20. Four words of the following sentence have been underlined and given as options. Select the option that contains a spelling error. Human activities that release longlived greenhouse gases into the atmosphere also leed to the enhancement of concentrations of shorterlived ozone and particulate matter in the atmosphere.

(a) concentrations
(b) particulate
(c) release
(d) leed

Answer: (d)

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. Fruits and vegetables contain important vitamins, minerals and plant (1)_____. They also contain fibre. There are many (2)_____ of fruits and vegetables available and many ways to prepare, cook and serve them. A diet (3)____ in fruit and vegetables can help protect you against cancer, diabetes and heart disease. Eat five kinds of vegetable and two kinds of fruit every day for good health. Most Indians do not eat (4)_____ fruit and vegetables. When buying and serving fruit and vegetables, aim for variety to get the most (5)_____ and appeal.

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

(a) residue
(b) bacteria
(c) chemicals
(d) organisms

Answer: (c)

22. Select the most appropriate option to fi.. number 2.

(a) traits
(b) characters
(c) varieties
(d) uses

Answer: (c)

23. Select the most appropriate option to fill in blank number 3.

(a) immersed
(b) rich
(c) content
(d) varied

Answer: (b)

24. Select the most appropriate option to fill in blank number 4.

(a) some
(b) enough
(c) many
(d) plenty

Answer: (b)

25. Select the most appropriate option to fill in blank number 5.

(a) assortment

(b) fun

(c) nutrients

(d) advancement

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

Reasoning Ability and Problem Solving

2	**(b)**	3	**(c)**	4	**(c)**	5	**(c)**	6	**(d)**	8	**(b)**
9	**(d)**	10	**(d)**	11	**(b)**	12	**(b)**	13	**(b)**	14	**(d)**
15	**(c)**	16	**(c)**	17	**(b)**	19	**(d)**	20	**(b)**		

General Awareness

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

English Language and Comprehension

1	**(b)**	2	**(b)**	3	**(c)**	4	**(b)**	5	**(d)**	7	**(b)**
8	**(d)**	9	**(c)**	10	**(c)**	11	**(b)**	12	**(b)**	13	**(b)**
[illegible]	**(d)**	15	**(b)**	16	**(b)**	17	**(c)**	18	**(c)**	19	**(d)**
20	**(d)**	21	**(c)**	[illegible]	**(c)**	23	**(b)**	24	**(b)**	25	**(c)**