

**INSTRUCTIONS TO EXAMINERS
OF
H.S.L.C. EXAMINATION
2019**

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**BOARD OF SECONDARY EDUCATION
MANIPUR**

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2019
MANIPURI (MEETEI MAYEK)

Full Marks - 80

Pass Marks - 20

Time: Three hours

মতম্ম যল্লিগাং ঞা,ল,ত,ক নেকল ঞায়ত্তাং ফাং ফাংল জেক্সেংল ॥ মতম্ম জুন্নিয়াং ফাংল
মতম্ম ফাংলৈ ইংকুং মংকৈল জাংলি ॥ উল্লিগাং মতম্ম-মতম্ম লিটিলৈলৈল জাংলৈল জাংলৈ ॥

ঞায়ত্তাং - ঞা

(জাংল)

১৥ ফাংল মতম্ম ফাংল যল্লিগাং জাংলৈ মতম্মলিগাং জাংলৈল জাংলৈ ॥

ফাংল নেকলৈ জাংলৈ টিফিলৈল টিফিলৈল ৥ জাংলৈ টিফিলৈলৈল ফাংল ফাংল
উল্লিগাংলৈল, ফাংলৈল ॥ ফাংলৈল ফাংলৈলজাংলৈল ফাংল-জৈলৈল উল্লি
উল্লি নেকল নেকলৈল ॥ ফাংলৈল ফাংল ফাংল জাংলৈল মৈ ফাংলৈল ॥ মৈ
ফাংলৈল ফাংল ফাংল জাংলৈল জৈ মতম্মলৈল ৥ ফাংল মতম্মলৈল
লৈল নেকলৈল ইমল ফাংল ৥ ফাংল ফাংল ফাংল জাংলৈল মৈ ফাংল
ফাংল-জৈলৈল ফাংলজাংলৈল ৥ ফাংল জাংলৈল নেকল, “ফাংল লিটিলৈল
লিটিলৈল জাংলৈল ৥” ইংকুংল উল্লিগাং ফাংল-জৈলৈল উল্লি মতম্মলৈল
ফাংল নেকল টি ফাংল ৥

(ঞ) ফাংল জৈল ফাংল ফাংল জাংলৈল জৈল ৥ ১

(ল) ফাংল নেকলৈল ফাংল ফাংল জাংলৈল ৥ ১

(ট) ফাংল নেকলৈল ফাংল ফাংল ফাংল নেকল মতম্মলৈল জাংলৈল ৥ ১

Contd.

(ස) 'තසා ජයන්ත පසුබිම' නමින් පළවන පොතේ 'පළමු කවි' කොටසේ ඇති කවි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

(ආ) සිංහල භාෂාවේ පැරණිතම සහ නවතම ලිවිලි සහිත ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

3. සිංහල භාෂාවේ පැරණිතම සහ නවතම ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

4. 'සිංහල' නමින් පළවන පොතේ 'පළමු කවි' කොටසේ ඇති කවි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

5. පුරාණ-දේව භාෂාවේ පැරණිතම සහ නවතම ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

6. සිංහල භාෂාවේ පැරණිතම සහ නවතම ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

7. සිංහල භාෂාවේ පැරණිතම සහ නවතම ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

8. සිංහල භාෂාවේ පැරණිතම සහ නවතම ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

9. සිංහල භාෂාවේ පැරණිතම සහ නවතම ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

10. සිංහල භාෂාවේ පැරණිතම සහ නවතම ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

සිංහල - 1

(න)

11. සිංහල භාෂාවේ පැරණිතම සහ නවතම ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

(ආ) සිංහල භාෂාවේ පැරණිතම සහ නවතම ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

(ඇ) සිංහල භාෂාවේ පැරණිතම සහ නවතම ලිවිලි පිළිබඳව විස්තරයක් ලෙස සඳහන් කරන්න. 5

७

ප්‍රකාශ

6

6

ප්‍රකාශන

3

Cont d.

(ਪਾਠ ਕੇਰ)

- Cont d.

සමාජ - ස

(මැතිණි)

82. සමාජ සහ සංස්කෘතික සම්ප්‍රදාය ප්‍රකාශයක් ලෙසින් :

- (ක) එම සංස්කෘතියේ උපාය, ක්‍රියාත්මක කරනු ලබන ප්‍රකාරය, ජීවිතයේ ස්වභාවය සහ සමාජයේ ස්වභාවය පිළිබඳව විවිධ මතවාද ඇතිව ඇත.

ප්‍රකාශය

- (උ) සමාජයේ ස්වභාවය සහ සංස්කෘතියේ ස්වභාවය පිළිබඳව විවිධ මතවාද ඇතිව ඇත. එම සංස්කෘතියේ ස්වභාවය පිළිබඳව විවිධ මතවාද ඇතිව ඇත. එම සංස්කෘතියේ ස්වභාවය පිළිබඳව විවිධ මතවාද ඇතිව ඇත. එම සංස්කෘතියේ ස්වභාවය පිළිබඳව විවිධ මතවාද ඇතිව ඇත.

83. 'සමාජයේ ස්වභාවය' - 'සමාජයේ ස්වභාවය' සහ 'සමාජයේ ස්වභාවය' යන පදවලින් සමාජයේ ස්වභාවය පිළිබඳව විවිධ මතවාද ඇතිව ඇත. 8

84. සමාජයේ ස්වභාවය පිළිබඳව විවිධ මතවාද ඇතිව ඇත. එම සංස්කෘතියේ ස්වභාවය පිළිබඳව විවිධ මතවාද ඇතිව ඇත. එම සංස්කෘතියේ ස්වභාවය පිළිබඳව විවිධ මතවාද ඇතිව ඇත. 9

82|| ‘සුඵළු’ යන වචනයෙහි

සමානරූපී ලිපිකාවක් සොයන්න.

පිළිතුරු සඳහා වෙන වෙනම පිළිතුරු දෙන්න.

—ලිපිකාවක් සොයා දෙනු ලබන පිළිතුරු කුමක් වේ ?

5

83|| සිංහල භාෂාවේ සර්වස්වකාරීත්වය පිළිබඳව සඳහන් කර ඇත.

6

(ක) සිංහල භාෂාවේ සර්වස්වකාරීත්වය පිළිබඳව සඳහන් කර ඇත. එහි අර්ථය පිළිබඳව පිළිතුරු දෙන්න.

පිළිතුරු

(ආ) සිංහල භාෂාවේ සර්වස්වකාරීත්වය පිළිබඳව සඳහන් කර ඇත.

එහි අර්ථය පිළිබඳව පිළිතුරු දෙන්න.

පිළිතුරු

84|| සිංහල භාෂාවේ සර්වස්වකාරීත්වය පිළිබඳව සඳහන් කර ඇත.

5

85|| සිංහල භාෂාවේ සර්වස්වකාරීත්වය පිළිබඳව සඳහන් කර ඇත.

5

86|| සිංහල භාෂාවේ සර්වස්වකාරීත්වය පිළිබඳව සඳහන් කර ඇත.

5

87|| ‘සිංහල භාෂාවේ සර්වස්වකාරීත්වය පිළිබඳව සඳහන් කර ඇත.

5

88|| සිංහල භාෂාවේ සර්වස්වකාරීත්වය පිළිබඳව සඳහන් කර ඇත.

5

“සිංහල භාෂාවේ සර්වස්වකාරීත්වය පිළිබඳව සඳහන් කර ඇත.

89|| සිංහල භාෂාවේ සර්වස්වකාරීත්වය පිළිබඳව සඳහන් කර ඇත.

5

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2.

SCORING KEY FOR H.S.L.C. EXAMINATION 2019
Subject : MANIPURI (MEETEI MAYEK)

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

Total number of printed pages - 8

51 M B 17 E (N)

2019

ENGLISH

Full Marks - 80

Pass Marks - 20

Time : Three hours

The figures in the right hand margin indicate full marks for the questions.

Answer the questions in your own words as far as practicable.

SECTION -A

(READING)

1. Read the following passage and answer the questions that follow :

We do not realize adequately to what extent our minds are moulded by books we read especially in youth. We have several means by which we acquire knowledge today i.e. radio, cinema, newspaper and television etc. But reading of books is the most ancient and effective of them all. Reading a book is different from mechanized instruction. We are never alone when we have books as our companions.

A great writer has said that religion is what man does with his solitariness. It is not merely religion but art and literature scientific discovery and technological invention that are the outcome of what a man does with his solitariness. In the modern world we tend to be gregarious beings. When we have a little leisure we run to parties, clubs or other social activities. We

Contd.

are afraid to be alone with ourselves afraid to stand and stare, much less to sit and think. We are happy with others not with ourselves. Pascal tells us that the evils of the world arise from the fact that men are unable to sit still in a room. Reading a book gives us the habit of solitary reflection and true enjoyment.

(a) Complete the following statements :

(i) The best means of acquiring knowledge is _____

1

(ii) When we have books as our companions _____

1

(b) Answer the following questions in one phrase/ sentence each :

(i) Why is reading of books different from several means of acquiring knowledge like radio, cinema, newspaper and television ? 1

(ii) What is man by nature ? 1

(iii) What is the cause of evils in the world according to Pascal ? 1

(c) Answer the following questions in about 50 words : 3

What does the writer tell us about the reading of books and solitariness?

(d) Find out the words from the passage that have the same meaning as :

1+1=2

(i) Sociable

(ii) Shaped

COURSE BOOK

(PROSE)

2. Answer the following questions in *one* phrase/ sentence each : 1 x3=3
- (a) Why should we plant more trees ? Give one reason.
 - (b) What is the outcome of human greed and thoughtlessness concerning rhinos ?
 - (c) When was the earliest international match of the Polo played ?
3. Answer the following questions in about 30 words each : 2x3=6
- (a) What made Sunita Williams to regard as a woman of many parts?
 - (b) In what respect is Andro a place of historical importance attracting tourist ?
 - (c) Why is creating 'a safe tourist friendly environment' important for tourism industry ?
4. Answer the following questions in about 50 words each : 3x2=6
- (a) "I saw that a man of truth must also be a man of care".
What had happened to M.K.Gandhi that he made this statement ?
Or
What were Ramanujan's contributions to mathematics which had made him world famous ?
 - (b) "They reached it together, as a team".
Why did Colonel John Hunt declare so ?
Or
Why is it said that the Shwedagon Pagoda is a spot where the nation's history, politics and religion intersect ?

SECTION - B

(WRITING)

5. Write an essay on *any one* of the following topics in about 200 words using the outlines given : 7

(a) Discipline

[What it means - the importance in personality development, relation-ship and success in life - conclusion]

(b) Importance of Newspaper.

[Introduction - how it serves everyone's interest - public opinion - business houses - its role in democracy- conclusion]

(c) Climate Change

[Introduction - causes and effects - man's role - conclusion]

6. Jenny of Wino Market of Ukhrul District writes to her sister Mayonao studying in Modern School, Barakhamba Road, New Delhi to make her aware of the present day competitiveness and to work hard to fulfil her dream. 5

Or

You are Sanahal of Thangmeiband Lourung Purel leikai . Write a letter to the Editor, Hot Tea Daily highlighting the deteriorating standard of living in the Imphal city by the fast increasing population. Prepare the letter.

7. You are Sajid, a staff reporter of a local daily. You went and collected information about the fire accident that began from a grocery shop at Thangal keithel. Prepare a news report to be published in your daily in about 100 words. 4

8. Make notes of the important points of the following passage and write a summary using the notes. (Use recognizable abbreviation wherever necessary) : 3+3=6

One of the best ways to make our writing better is to avoid long sentences. To see just how effective this can be, take a look at a top - quality newspaper. Sentences vary in length but most are short and punchy. Generally, we can tell from the first sentence what the story is about.

Take another example to know how can we can be clear and concise. Successful authors captivate their audiences with brief sentences made interestina with imaginative use of words. Every word that we write should be there for a reason. Using longer words will make our writing vague. Most people have a tendency to use certain favourite words all the time e.g. words like "basically and actually. "Identify such words in our writing. Are they necessary to the meaning ? Is there a better alternative, or could we get rid of them altogether ?

We all resort to overused phrases such as in a 'nutshell', 'You know' or 'the fact is' Look at these examples and ask yourself whether we are using them as a concise way to sum up a situation or just out of laziness. Retain them only if they add to the meaning .

9. You are the Secretary of Students' Council of Eastern Star Academy, Imphal East District. Write a notice informing the students from Class VIII to X to join Tree Plantation Day on the theme "Go Green, Save Earth " to be held on the 22nd June, 2019. The programme is organized by the school authority.

3

SECTION - C

(GRAMMAR)

10. Rewrite the following sentences inserting appropriate determiners in the blanks: 1+1=2

The select committee members have now read all of the competition entries. _____ entry has received careful consideration. _____ finalist has produced impressive work in one way or another.

11. Fill in the blank with correct modal verb of the following : 1

All drivers _____ have adequate insurance.

12. Change the voice of the following sentences : 1+1=2

(a) Who painted this picture?

(b) There is said to be bad weather on the way.

13. Change the narration of the following : 1+1=2

(a) Linthoi said, "Let it rain, I have to go."

(b) James said, "How can I do such a foolish work ? "

14. Transform the following sentences as directed : 1+1=2

(a) In case of his failure to return the goods, he must pay the bill.

(Change into complex sentence)

(b) Only the industrious hope to succeed in life.

(Convert it into a negative sentence without changing the meaning)

15. Rewrite the following sentence using the correct form of the verb within bracket:

1

They _____ (sing) when we reached there.

SECTION- D

(LITERATURE)

16. Answer the following questions in about 30 words each : $2 \times 2 = 4$

- (a) Why did the imp turn into a labouring man?

Or

"The policeman is a necessary symbol."

Why does the writer say so ?

- (b) "My punishment is just; but oh, God, it is very hard."

Why is it "very hard" while the Bishop accepted the punishment as 'just' ?

17. Answer the following questions in 30 words each : $2 \times 3 = 6$

- (a) "Nor shall Death brag thou wonder'st in his shade,

When in eternal lines to time thou grow'st;"

Explain the idea.

Or

"Nor shall she fail to see

Even in the motions of the storm

Grace that shall mould the maiden's form

By silent sympathy."

What does Nature mean here in the perfect development of beauty and grace of Lucy ?

- (b) "Into the jaws of Death,
Into the mouth of Hell."

Explain the imagery.

Or

"And at the corner of the street

A lonely cab - horse steams and stamps."

What does the poet want to convey in these lines ?

- (c) "I am apart of joy and a part of sorrow."

Explain the part played by flower at the time of joy and sorrow.

Or

"And the frog observed them glitter

With a joy both sweet and bitter."

Why was the frog's joy both sweet and bitter ?

18. Answer the following question in about 120 words : 5

How were M. Hamel and Franz affected by the order from Berlin ?

Or

Describe the behavior of Lady Macbeth in her sleep -walking as observed by the doctor and the gentlewoman.

19. Answer the following Questions in about 120 words : 5

Write the character of the Bishop.

Or

Write the theme of the play ' The Bishop's Candlesticks'.

SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject : ENGLISH

Q.No.	Key	Mark for each point	Total Marks
1	<p>a. (i) reading of books (ii) we are never alone</p> <p>b. (i) Reading of books is the most ancient and effective of all the means of acquiring knowledge, but reading of books is different from this mechanized instruction (ii) Man is gregarious by nature. (iii) According to Pascal all the evils arise from the fact that man is afraid to be alone still.</p> <p>c. The writer tells that the best means to acquire knowledge is through books. While reading a book one cultivates the habit of solitary reflection which is otherwise not possible. In fact in the company of books one is never alone. Moreover the great works of art, literature and scientific discoveries or inventions are the results of solitariness.</p> <p>d. (i) gregarious (ii) moulded</p>	<p>1 1 1 1 1 3 1 1</p>	10
	COURSE BOOK (PROSE)		
2	<p>(a) We should plant more trees in order to reduce environmental pollution. or (consume Cot and give out oxygen and spread out in the air) etc.</p> <p>(b) The outcome of human greed and thoughtlessness is poaching for its valuable valuables horns.</p> <p>(c) The earliest international Polo match ,was played in 1886(between England and the U.S.A)</p>	<p>1 1 1</p>	3

3	<p>(in about 30 words)</p> <p>(a) The multi-faceted training and achievement made her a woman of parts. She was a naval aviator, helicopter pilot, test pilot, naval diver, swimmer, marathon runner and an astronaut who became record holder in space walking.</p> <p>(b) There is a fire-place at Andro which has been burning for the last couple of millennium years at the historical site of the mythical King Panam. There is also a very big drum. There is also a cultural complex established by Mutua Museum.</p> <p>(c) Both the state government and the people should put efforts to make the prospective tourists feel that Manipur is a safe destination because no one would like to visit where safety limit is minimal.</p>	2 2 2	6
4.	<p>(in about 50 words)</p> <p>(a) One Saturday M.K. Gandhi had to go from home to school for gymnastics at 4 O'clock in the afternoon. Being late, no one was there. Mr. Gimi refused to believe Gandhi's explanation of the truth of the matter and marked absent with the imposition to pay a fine. The incident deeply pained him.</p> <p style="text-align: center;">or</p> <p>Ramanujan developed relations between modular equations. His most outstanding contribution was his formula for $p(n)$, the number of 'partitions' of W. His development of the 'Number Theory' led to major developments in the topic. He compiled nearly 3900 mathematical theorems and the results.</p> <p>(b) After the conquest of Everest, Hillary and Tenzing were now worldwide heroes and greeted by huge crowds in India and London. But a controversy over whether Sir Edmund or Norgay reached the 3 summit first was about spoil the celebrations. Then Hunt's words put the controversy to an end.</p> <p style="text-align: center;">or</p>	3 3	6

	The Singuttara Hill was the scene of bloody hand-to-hand fighting during Anglo-Burmese wars in 1800s. There is also a memorial to eleven student protestors who, in 1920, demonstrated against the British. On top of the hill, the Shwedagon Pagoda the holiest of the Buddhists sits.		
5	Write an essay on any one topic:- To evaluate : 1. Whether follows outlines 2. Knowledge of the topic 3. Expression	1 2 4	7
6	Writes the letter:- 1. Format 2. Content / Body :- i) Introduction / Beginning ii) Middle / Main item iii) Conclusion / End 3. Expression	2 1 2	5
7	Writes the report :- To evaluate :- 1. Heading / Caption 2. By line - Name, Position of the person writing the report 3. Date and place 4. Opening paragraph - what happened, where, how - effect alongwith day, date and time. 5. Paragraph 2/3 etc if there are more details of the event being reported, eye witness. 6. Conclusion/ Remark	2+2	4
8	Makes notes:- Main points:- 1. Better writing: Sub points:- 1.1. avoid long sentences 1.2. must be short and punchy 2. use meaningful words: 2.1. be clear and concise 2.2. use interesting with imaginative words 2.3. use only necessary / meaningful words 3. avoid over used phrases 3.1. retain only if necessary 3.2. use as concise way to sum up a situation	3+3	6

	Writes summary or The other form of making notes i.e. in broken line is acceptable.		
9.	Write Notice:- 1. Format 2. ContentTo Evaluate:- 1. Name of org./Inst./office 2. The word 'Notice' / 'Notification' 3. Date 4. Heading 5. Purpose of writing 6. Details (date, time, venue deviation etc.) 7. Signature / name / designation	3	3
	SECTION - C (GRAMMAR)		
10	The select committee members have now read all of the competition entries. <u>Every</u> entry has received careful consideration. <u>Each</u> finalist has produced impressive work in one way or another.	1+1	2
11	All drivers must have adequate insurance.	1	1
12	(a) Who was this picture painted by? Or By whom was this picture painted? (b) They /People say there is bad weather on the way.	1 1	2
13	(a) Linthoi persisted that she did not care for the rain and she had to go. Or Linthoi determinately said that she had to go even if it rained. (b) James thought/wondered how he could do such a foolish work.	1 1	2
14	(a) If he does not return the goods, he must pay the bill. (b) None but the industrious hope to succeed in life.	1 1	2
15	They <u>were singing</u> when we reached there.	1	1

SECTION - D (LITERATURE)			
16.	<p>(in about 30 words)</p> <p>(a) The imp turned himself into a labouring man so that the peasant should take him to service. Then he could become a friend and bring confidence to the peasant to lead him to make sin.</p> <p style="text-align: center;">Or</p> <p>Men have become highly civilized beings but the society is not free from crime and violence. The presence of police reminds people law and order and the punishment thereof for the offenders.</p> <p>(b) The Bishop accepted that for being proud of those candle sticks he was punished. In spite of the realization/ acceptance, it was hard to bear the loss because they symbolized his mother and were objects of remembrance of his mother.</p>	2	4
17	<p>(in about 30 words)</p> <p>(a) The poet says that Death shall not talk boastfully when his friend is dead because his poem will make his friend live again leaving Death powerless.</p> <p style="text-align: center;">Or</p> <p>The motions of the storm are free and wild and so is the life of Lucy. When the storm is over, everything looks clear and silent. There is grace in the calmness and that will influence Lucy's maiden form.</p> <p>(b) The imagery is of a huge animal with big jaws or mouth opening wide to eat or swallow those coming towards him/it. It shows that the Light Brigade were sure to meet/ face horrible condition/end.</p> <p style="text-align: center;">Or</p> <p>The 'Cab-horse standing' alone in the cold and rainy evening portrays the drab, cheerless and unpleasant conditions that the workers/wage earners in industrial city had to bear to earn their livings. It shows unpleasant, hardship of life.</p>	2	2

	<p>(c) Flowers are the wordless expressions beyond words of human feelings/thoughts of joy and sadness. It/she expresses love as lover's gift, joy of union as marriage-wreath and reminds moment of happiness. It/she expresses sadness/sorrows by offering to the dear departed one:</p> <p style="text-align: center;">Or</p> <p>The frog's joy was sweet as he was earning a lot in the form of ticket money from the creatures and it was bitter as the same creatures who hated his voice readily/willingly paid to listen to the nightingale's song.</p>	2	6
18	<p>Answer the following question in about 120 words:-</p> <p>Two French speaking districts of Alsace and Lorraine - under German occupation - imposed German language - hurt the pride of the people. M. Hamel broke the news - declared his last lesson in French - a new master would replace. Aroused patriotic feelings in students, village elders - spoke at length about French language- expressed his dismay as people were indifferent to learning - called upon to guard, never forget it - key to unity, liberation. Everyone listened with rapt attention and respect.</p> <p style="text-align: center;">Or</p> <p>Lady Macbeth utterly worn out - no rest, no sleep - doctor's effort useless. Doctor and gentle woman observed - third night Lady Macbeth woke up in her sleep - took candle - was walking - eyes open, senses shut - washed her hands - talked to Macbeth (as if he was there) about Hell - fear, blood and its smell - to wash and put on night gown - about Banquo. Took candle - said 'To bed, to bed' - 'knocking at the gate' etc - her mind' burdened with the weight of her remorse/guilt - filled with ceaseless horror/fear and anxiety.</p>	5	5

19.	<p>Answer the following question in about 120 words:-</p> <p>Blessed by God, an ideal priest - always at the service of those who need him. Kind, generous and charitable, the Bishop cannot bear to see anyone in pain and suffering. He is sacrificing, all embracing - sells possessions to help others - upholds the church and blessings of the Almighty - helps reclaim sinned and battered souls and shows the path of redemption.</p> <p style="text-align: center;">Or</p> <p>The play is based on the theme that circumstances mould the life of men. The convict was a good man - compelled him to steal as wife dying and no food, work arrested - tried - sent to ten years' imprisonment - turned into a beast. Where apathetic society turns one in to a criminal, it is love and kindness and empathy that can reclaim a man. No healing touch from anyone but found in the Bishop convicts repents, believes in the goodness of human beings. The Bishop shows new light to the convict. Also shows that love, compassion, understanding can turn a convict in to goodmen, not harsh punishment.</p>	5	5
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Total number of printed pages - 7

51 MB 322 (N)

2019

ADDITIONAL ENGLISH

Full Marks - 80

Pass Marks - 20

Time : Three hours

Attempt all questions.

The figures in the right hand margin indicate full marks for the question.

Answer the questions in your own words as far as practicable.

SECTION -A

(POETRY)

1. Explain the following extract with reference to the context : 6
- (a) O blessed bird ! the earth we pace
Again appears to be
An unsubstantial, fairy place,
That is fit home for thee !
Or
- (b) But, oh! of all delightful sound,
Of evening or of morn,
The sweetest is the voice of love
That welcomes his return.

Contd.

2. Answer the following questions in one sentence each 1X3=3
- (a) What does the 'Worldly task' mean by the poet?
 - (b) Why does the stream feel about the voiceless things?
 - (c) When did Indian Weavers weave a dead man's funeral shroud?
3. Answer the following questions in about 30 words each : 2x3=6
- (a) What does the poet H.W. Longfellow wish us to do in the battle of life ?
 - (b) How does the stream wear out the strength of the rocks and boulders?
 - (c) Why are Golden Lads and Girls compared with the Chimney Sweepers ?
4. Answer the following questions in about 100 words : 5
- (a) How does the poem 'Indian Weaver' express the life of man from birth to death ?
- Or
- (b) How does Longfellow say in his poem that life is not an empty dream but a reality ?

SECTION - B

(PROSE)

5. Explain the following extract with reference to the context : 6

- (a) "I know that God is neither in Heaven nor down below, but in everywhere, be he a Hindu, a Mushalman, a Parsi, a Christian man or woman".

Or

- (b) "So he would chide us if we merely mourn. That is a poor way of doing homage to him".

6. Answer the following questions in one sentence each : 1 x3=3

- (a) Which country regarded malaria as a curse ?
- (b) Name the appointed place where the two friends are to meet after twenty years ?
- (c) Who designed the 'Analytical Engine'?

7. Answer the following questions in about 30 words each : 2x3=6

- (a) Why did the intruder come to Gerrard's house?
- (b) Why did Ronald Ross meet Manson in London ?
- (c) What according to the author, are the various uses of computers in our routine activities ?

8. Answer the following questions in about 100 words : 5

- (a) 'Nehru says that Gandhiji has been greater in his death'. Describe the greatness of Gandhiji.

Or

- (b) Relate in brief how Ronald Ross discovered that anopheles was the carrier of the germs of malaria.

SECTION - C

(READING)

9. Read the following passage and answer the questions that follow :

Ideas and economic conditions make revolutions) Foolish people in authority, blind to everything that does not fit in with their ideas, imagine that revolutions are caused by agitators. Agitators are people who are discontented with existing conditions and desire a change and work for it. Every revolutionary period has its full supply of them; they are themselves the outcome of the ferment and dissatisfaction that exist. But tens and thousands of people not move to action merely at the bidding of an agitator. Most people desire security above everything; they do not want to risk losing what they have got. But when economic conditions are such that their day-to-day suffering grows and life becomes an almost intolerable burden, then even the weak are prepared to take risk. It is then that they listen to the voice of the agitator who seems to show them the way out of their misery.

- (a) Answer the following questions in one word/ phrase/ sentence each:
- (i) What do people in authority imagine ? 1
 - (ii) What makes revolutions ? 1
- (b) Answer the following questions in about 30 words each :
- (i) Why don't people move to action at the bidding of an agitator ? 2
 - (ii) Why do people listen to agitator ? 2
- (c) Pick out the word from the passage having the same meaning as :
- (i) result or consequence 1
 - (ii) State of being protected 1

SECTION - D
(WRITING)

10. Complete the following dialogue with appropriate words/ phrases according to the context : 1 x5=5

Tom : Hello Harry ! _____ ?

Harry : Fine, thanks. What a pleasant surprise !

Tom : It's a long time _____ we met. Where all these years ?

Harry : In Delhi, now _____ you ?

Tom : I'm also fine, tell me _____ now-a-days ?

Harry : In Hotel Imphal.

Tom : _____ will you stay here ?

Harry : Only for a week.

11. You are the Secretary of your local club. Write a notice for circulation among the club members asking them to take part in the observance of 'National Cleanliness Day'. 3
12. Give arguments for and against the given topic in about 90 -100 words : 5
"Co-Education System"
13. Prepare a brief news report on the market scene on the eve of Ningol Chakouba or Christmas festival. sign yourself as Smith. 5
14. Write a precis of the following and give a suitable title : 7

Why is this increase in population taking place ? It is due the spread of knowledge and practice of what is called Death Control. Death Control includes the work of the doctors and nurses and the hospitals and health services in keeping alive people who, a few years ago would have died of some killing diseases. Today, medical examinations at school catch diseases early and ensure healthier school children, Scientists are at work stamping

out malaria and other more deadly diseases. Medical care today keeps people longer. We used to think seventy was a good age; now eighty, ninety, it may be, are coming to be recognised as a normal age for human beings. People are living longer because of this Death Control.

15. You are Samson, General Secretary of Paradise High School. Write a letter to the Principal of your school asking him for postponement of the half yearly examination of your school. Give reasons for same. 7

Or

Suppose the washing machine you bought recently from Nidhi Enterprise does not work properly. Write a letter of complaint to the firm to check it or replace it with a new one. Put your name as Mr. Singson.

SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject: ADDITIONAL ENGLISH

Q.No.	Key	Mark for each point	Total Marks
1	<p>(a) Context: To the Cuckoo by W. Wordsworth Cuckoo's song wanders for one hill to another – the poet looks through the woods and the green- can't be seen – the birth seems to enjoy the blessing of God.</p> <p>Or</p> <p>(b) Context: Traveler's Return by R. Southey</p> <p>(c) The traveler enjoy different songs – Skylark's in the morning – swift wind at noon – flowing river water at afternoon – But the sweetest is the welcoming voice for his dearest at his home</p>	<p>2</p> <p>4</p>	6
2	<p>(a) God's given duty to man.</p> <p>(b) Will not last long</p> <p>(c) In the moonlight chill</p>	1x3	3
3	<p>(a) fight like a hero – like soldiers fighting in the battlefield – not as a timid.</p> <p>(b) the constant flow of the stream carried away all the rocks and boulders - their strength will be worn out at last.</p> <p>(c) Rich and poor will die one day – no difference in the body of the golden lads and chimney sweepers.</p>	2x3	6
4	<p>(a) The poem centres round the life of man from birth to death – weavers weave according to the time of the day – that is different stage of life – different colours for the new born – for marriage – for funeral.</p> <p>Or</p> <p>(b) Shoid act in the living present – not bother about pat – not to dream about future – continuous activities will bear fruit.</p>	5	5

5	<p>(a) Context: The need for Religion by M.K. Gandhi God can be seen through the service to humanity – God is everywhere – God is always in man whether he is a Hindu, a Mussalman or a Parsi</p> <p>Or</p> <p>(b) Context: A Glory has departed by J.N. Nehru Mahatma died for his country – instead of crying we should try to follow his ideal – Gandhiji would not like his followers to mourn his death – wants to follow the path he had shown to the Indians.</p>	2+4	6
6	<p>(a) Greece and Rome</p> <p>(b) Big Joe Brady's Restaurant</p> <p>(c) Charles Babbage</p>	1x3	3
7	<p>(a) He was hunted for killing a policeman – wanted to kill Gerrard and steal his identity.</p> <p>(b) Ross knew Manson also doing research on Malaria – wanted to know his theories on Malaria.</p> <p>(c) Journey tickets – payments of bills – diagnosis of diseases</p>	2x3	6
8	<p>(a) Gandhiji faced many sufferings during the freedom struggle – Every Indian knew his sacrifice – he was assassinated – millions mourned his death – greater in his death.</p> <p>Or</p> <p>(b) Ross, a medical officer in India working on Malaria for 4 years – discovered Some cells of mosquitos had pigments of Malaria parasites – found only the female anopheles as the carrier of the germ.</p>	5	5
9	<p>(a)</p> <p>(i) that revolutions are caused by agitators</p> <p>(ii) Ideas and economic conditions make revolutions</p> <p>(b)</p> <p>(i) People do not move to action at the bidding of an action because most desire security above everything. They do not want to risk losing what they have got.</p>	1 1 2	

	(ii) When economic conditions cause sufferings and intolerable, the weak ones are prepared to take risks. Then they listen to the voice of the agitators.	2	
	(c)		
	(i) Outcome	1	
	(ii) security	1	8
10 How are you Since how about where are you staying how long	1x5	5
11	Circular/ Notice Writing	3	3
12	Argument writing (equal mark distribution for merits and demerits)	5	5
13	Report Writing: Format Content	2 3	5
14	The problem of rapid increase in population is due to death control. It means high birth rate, low death rate and longer life span. Thanks to early detection of deadly diseases together with improved medical and health care facilities. Consequently, not seventy or eighty but ninety has been regarded as normal age for human Beings. Title: Increase of life span/Death Control etc.	5 2	7
15	Letter Writing: Format Content	2 5	7

2019

MATHEMATICS

Full Marks - 80

Pass Marks - 20

Time : Three hours

Attempt all questions.

The figures in the right hand margin indicate full marks for the questions.

1. For any natural number m , the digital root of 7^m cannot be : 1

નૅ m યેન્ટીયર ઝંનિય ઈનિય યુઁ યેન્ટર, 7^m નિ ડિજિટલ રૂટ યુઁ ઈઝોનિય યેન્ટર ઝેન :

- (A) 1
(B) 4
(C) 6
(D) 7

2. The pair of linear equations $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ is a dependent pair if : 1

ઈઝોનિય યેન્ટર ઈઝોનિય, $a_1x + b_1y + c_1 = 0$ and $a_2x + b_2y + c_2 = 0$ ઝેન linear equation ઝુઁ યુઁ dependent ઝેન ઝુઁ યેન :

(A) $\frac{a_1}{a_2} \neq \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$

(B) $\frac{a_1}{a_2} \neq \frac{b_1}{b_2} = \frac{c_1}{c_2}$

(C) $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$

(D) $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$

Contd.

3. The 15th term of an AP exceeds the 22nd term by 35 ; the common difference of the AP is : 1

AP අයුරු 15 වූ term ට 22 වූ term ආර් 35 තරම්; AP අයුරු common difference සොයාගන්න :

- (A) -5
(B) 5
(C) -7
(D) 7

4. The coordinates of the point which divides the line segment joining the points (x_1, y_1) and (x_2, y_2) internally in the ratio of $m : n$ are : 1

(x_1, y_1) සහ (x_2, y_2) තිබෙන රේඛාස්ථරයේ $m:n$ අනුපාතයෙන් බෙදන ලද ලක්ෂ්‍යයේ coordinate ගොඩනඟන්න :

- (A) $(\frac{mx_2 + nx_1}{m+n}, \frac{my_2 + ny_1}{m+n})$
(B) $(\frac{mx_1 + nx_1}{m+n}, \frac{my_2 + ny_2}{m+n})$
(C) $(\frac{mx_2 - nx_1}{m-n}, \frac{my_2 - ny_1}{m+n})$
(D) $(\frac{mx_1 - nx_1}{m-n}, \frac{my_2 - ny_1}{m-n})$

5. The circumference of a circle 168 cm. If the sectorial angle of a sector of the circle is 120° , then the length of arc of the sector in cm is : 1

Circle අයුරු circumference 168 cm යි. Circle අයුරු sector අයුරු sectorial angle 120° වන සේ sector අයුරු arc හි දිග කොපමණ cm ක සොයාගන්න :

- (A) 55
(B) 56
(C) 54
(D) 57

6. Write the nature of the roots of the quadratic equation
 $ax^2 + bx + c = 0$ when its discriminant is negative 1
 $ax^2 + bx + c = 0$ තේරුම් quadratic equation හි discriminant $b^2 - 4ac$ negative
 වන අයුරින් root ගණන සහ අගය සඳහන් කරන්න.
7. The n th term of an AP is $5 - 3n$. Can the sequence be an AP? 1
 Sequence $5 - 3n$ හි n වන පදය $5 - 3n$ වේ. Sequence $5 - 3n$ AP වන්නේද ?
8. What is meant by a secant of a circle? 1
 Circle හි secant යනු කුමක්ද ?
9. The sides of a triangle are 11 mm, 60mm and 61 mm. State whether the triangle is a right triangle or not.
 Triangle හි side ගණන 11 mm, 60 mm සහ 61 mm වේ. Triangle හි right triangle වන්නේද ?
10. Write a Pythagorean relation between the trigonometric ratios $\sec A$ and $\tan A$. 1
 $\sec A$ සහ $\tan A$ ත්‍රිකෝණමිතික අගයන් අතර Pythagorean relation සඳහන් කරන්න.
11. Find the value of $\tan 35^\circ \tan 45^\circ \tan 55^\circ$. 1
 $\tan 35^\circ \tan 45^\circ \tan 55^\circ$ හි අගය සොයන්න.
12. Write the formula for the total surface area of a frustum of a cone using usual notations. 1
 cone හි frustum හි total surface area හි formula සඳහන් කරන්න.
13. When are events of a random experiment said to be mutually exclusive? 1
 Random experiment හි event ගණන n සහ m mutually exclusive වන්නේද ?

14. Let $P(x)$ be any polynomial of degree ≥ 1 and let a be any real number. If $P(x)$ is divided by the linear by the linear by the linear polynomial $x - a$, prove that the remainder is $P(a)$. 2

$P(x)$ යනු degree ≥ 1 වන polynomial යැයි ගනිමු. a ඒ real number යැයි දෙමු. $\parallel P(x)$ ගැන $x-a$ වන linear polynomial යනුවෙන් බෙදීමේදී ඉතිරි වන්නේ $P(a)$ වන බව පෙන්වන්න.

15. If $x^2 + px + q$ and $x^2 + rx + s$ are both divisible by $x - a$, show that $a = \frac{s-q}{p-r}$.

$x^2 + px + q$ සහ $x^2 + rx + s$ යන දෙකම $x - a$ ට බෙදිය හැකි නම්, $a = \frac{s-q}{p-r}$ බව පෙන්වන්න.

16. If a be the first term and d be the common difference of an AP. Show that the n^{th} term of the AP is given by $a_n = a + (n - 1) d$. 2

AP හි පළමු පදය a සහ common difference d වන නම් AP හි n වන පදය $a_n = a + (n - 1) d$ බව පෙන්වන්න.

17. If α, β are the roots of $2x^2 - 5x + 11 = 0$, find the value of $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$. 2

$2x^2 - 5x + 11 = 0$ හි root වන α, β වල $\frac{\alpha}{\beta} + \frac{\beta}{\alpha}$ හි අගය සොයන්න.

18. A solid metallic hemisphere of diameter 28 cm. is melted and recast into number of cones each of radius 7 cm and height 16 cm. Find the number of cones so formed. 2

Diameter 28 cm. වන අර්ධ ගෝලාකාර වස්තුයක අරය 7 cm සහ උස 16 cm වන cone වලට පුළුල් කරනු ලබන cone වල සංඛ්‍යාව සොයන්න.

19. Factorise : $x^2 - 10x + 25$ 3

Factorise 30^6 :

$$a^2(b+c) + b^2(c+a) + c^2(a+b) + 2abc$$

20. For any positive intergal number n show that $n(n + 1) (n + b)$ is divisible by 6. 3

n ਘੱਟੋ ਘੱਟ positive integer ਅਤੇ $n(n+1)(n+b)$ ਘੱਟੋ ਘੱਟ 6 ਦਾ ਗੁਣਕ ਹੋਵੇ।

21. Solve graphically : 3

Graph ພາກ ກ່ອນ ສolve ນີ້ :

$$2x + y = 8$$

$$x - 3y + 3 = 0$$

22. Prove that the intercept of a tangent between two parallel tangents to a circle subtends a right angle at the centre. 3

Circle ಪರವರ್ತಿ parallel ಪರಿಸ್ಪರ್ಶ tangent ಪರಿಸ್ಪರ್ಶ ಪರಿಸ್ಪರ್ಶ tangent ಪರವರ್ತಿ ಪರವರ್ತಿ
ಪರವರ್ತಿ (intercept) ಪರವರ್ತಿ circle ಕೇಂದ್ರ ಹಾಗೂ right angle ಪರವರ್ತಿ ಪರವರ್ತಿ
ಪರವರ್ತಿ 50° ||

23. Calculate the values of trigonometric ratios of 45° . 3

45° හි trigonometric ratio ලබාගත් ලකුණු සහිතව සලකා බලන්න.

24. If three straight lines are drawn on a white board at random with the eyes closed, show that the probability of forming a triangle is $\frac{1}{7}$. 3

White board ଅନୁର କ୍ଷମିତ ଲେଖାଯାଇଥିବା ସୂଚକ ଦର୍ଶାଇ ଏହିପରି ପ୍ରଶ୍ନ ଉଠାଇଲେ
 ଗୋଟିଏ triangle ର ବ୍ୟବସ୍ଥା probability କଣ $\frac{1}{7}$ ତାହା ଜଣାଉ ।

25. If x, y are any real numbers and d , positive real number prove that $|x - y| < d$ if and only if $y - d < x < y + d$. 4

x, y උච්ඡාය real number ලියා ගනු ලබන d උ positive real number උච්ඡායක් පාලනය වේ :

$$|x - y| < d \Leftrightarrow y - d < x < y + d$$

26. A motor boat whose speed is 15 km/hr in still water takes 1 hour longer to go 36 km upstream than to return downstream to the same spot. Find the speed of the stream.

ମଂଜୁଷ୍ଠ ଲଗାଯିବା ଫୁଟିବା ସମୟ 15 km/hr ଏବଂ motor boat ଏକକ୍ଷର ଲମ୍ବରାମୀ
 ଲମ୍ବରାମୀ 36 km ଲମ୍ବରାମୀ, ଲମ୍ବରାମୀ ଲମ୍ବରାମୀ ଲମ୍ବରାମୀ ଲମ୍ବରାମୀ 1 hour
 ଲମ୍ବରାମୀ ଲମ୍ବରାମୀ ॥ ଲମ୍ବରାମୀ ଲମ୍ବରାମୀ ଲମ୍ବରାମୀ ॥

Or/உதாரணம்

In an auditorium, the seats are so arranged that there are 10 seats in the first row, 13 seats in the second, 16 seats in the third etc. thereby increasing the number of seats by 3 every dnext row. If there are 64 seats in the last row, how many rows of seats are there in the auditorium ? Also find the total number of seats in the auditorium.

[illegible]

- 27 Find the area of a triangle ABC with vertices $A(x_1, y_1)$, $B(x_2, y_2)$ and $C(x_3, y_3)$. 4

$A(x_1, y_1), B(x_2, y_2)$ എന്നും $C(x_3, y_3)$ ൽ vertex ന്നിന്ന ആകട്ടെ triangle ABC ന്റെ area
നോക്കാം ||

28. State and prove Basic Proportionality Theorem. 5

Basic Proportionality Theorem ની મેઈન રુલ ટાલેમીના પ્રમેય ૧૬ ॥

Or/උදාහරණ

If a perpendicular is drawn from the vertex of the right angle of a right triangle to the hypotenuse, prove that the triangles on each side of the perpendiculars are similar to the whole triangle and to each other.

Right triangle යනු right angle හි vertex ට perpendicular යන hypotenuse ට අර්ධරේඛාව, perpendicular හි ඒකාස්කම් ඒකාස්කම් triangle යනු යනු යනු triangle සමානව similar යනු බව පෙන්වන්න.

29. Construct a triangle similar to a given triangle ABC with its sides equal to $\frac{5}{3}$ of the corresponding sides of the triangle ABC. Write the steps of construction.

$$2+3=5$$

දෙනු ලැබූ triangle ABC ට similar යනු ratio 5:3 සමානව කරන්න. construction ට අනුකූලව කරන්න.

Or/උදාහරණ

Divide a given line segment AB internally in the ratio 4 : 3. Write the steps of construction.

දෙනු ලැබූ රේඛා කොටස AB ට 4:3 බෙදා දෙන්න. construction ට අනුකූලව කරන්න.

30. The pilot of an aeroplane observes that the angle of depression of a kilometer stone on a straight road on a horizontal ground is 30° when his aeroplane is at particular altitude. When he increases the altitude by 300m the angle of depression of the next kilometer stone is 60° . Find the altitude of the aeroplane when the first observation is made.

5

Aeroplane යනු pilot යනු යනු aeroplane යනු altitude යනු රේඛා කොටස horizontal යනු රේඛා කොටස තරම් යනු රේඛා කොටස kilometer stone යනු angle of depression යනු 30° බව පෙනේ. ඔහු යනු altitude යනු 300m වැඩිවූ විට kilometer stone යනු angle of depression යනු 60° බව පෙනේ. ප්‍රථම නිරීක්ෂණය කරන විට aeroplane යනු altitude යනු සොයන්න.

31. A cone of height H , is divided into two parts by a plane through the mid-point of the axis of the cone and parallel to the base. Find the ratio of curved surface area of the conical part to that of the frustum. 6

H ධ්‍රැවය cone යුතු, ස්වයං axis හි මධ්‍යයේ සිට පරාලක base ට parallel වැනි plane යුතු ලෙසට ඔස්සේ කපා ලැබේ. cone සහ frustum හි වක්‍ර භූමිකම්වල අනුපාතය සොයන්න.

32. Find the mean, median and mode of the following distribution : 6

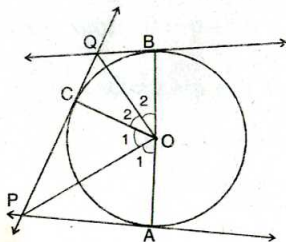
පහත දැක්වෙන distribution හි mean, median සහ mode සොයන්න :

Class	20-40	40-60	60-80	80-100	100-120	120-140	140-160	160-180	180-200
Frequency	6	9	11	14	22	13	10	8	7

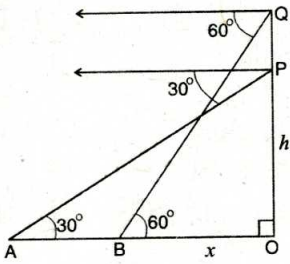
SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject : MATHEMATICS

Q.No.	Key	Mark for each point	Total Marks
1	C	1	1
2	D	1	1
3	A	1	1
4	A	1	1
5	B	1	1
6	The roots are not real.	1	1
7	Yes, it is an AP.	1	1
8	A straight line which intersects a circle at two distinct points is called a secant of the circle.	1	1
9.	Yes, the triangle is right triangle. (e.g. $61^2 - 60^2 = 121 = 11^2$)	1	1
10	$\sec^2 A - \tan^2 A = 1$	1	1
11	$\tan 35^\circ \tan 45^\circ \tan 55^\circ = \tan 35^\circ \times 1 \times \tan(90^\circ - 35^\circ)$ $= \tan 35^\circ \times \cot 35^\circ = 1$	1	1
12	Total S.A. = $\pi l(r_1 + r_2) + \pi r_1^2 + \pi r_2^2$	1	1
13	Events are said to be mutually exclusive if the happening of one forecloses the happening of all others.	1	1
14	Suppose that when $p(x)$ is divided by $x - a$, the quotient is $q(x)$ and the constant remainder is R . Then $p(x) = (x - a).q(x) + R$	1	2
	Since this is true for all values of x , putting $x = a$ we have, $p(a) = (a - a).q(a) + R = R$ $R = p(a)$	1	
15	Here, $x - a$ is a factor of both $x^2 + px + q$ and $x^2 + rx + s$ $\therefore a^2 + pa + q = 0$ and $a^2 + ra + s = 0$ $\therefore (p - r)a + q - s = 0$ $\Rightarrow (p - r)a = s - q$ $\Rightarrow a = \frac{s - q}{p - r}$	1 1	2

16	<p>The A.P., with first term a and common different d is :</p> <p>$a, a + d, a + 2d, a + 3d, \dots$</p> <p>Here, $a_1 = a = a + (1 - 1)d$</p> <p>$a_2 = a + d = a + (2 - 1)d$</p> <p>$a_3 = a + 2d = a + (3 - 1)d$</p> <p>$\dots \dots \dots$ & so on</p> <p>Looking at the pattern, we see that $a_n = a + (n - 1)d$</p>	1	2	
17	<p>Here α, β be the roots of $2x^2 - 5x + 1 = 0$</p> <p>$\therefore \alpha + \beta = \frac{5}{2}$ and $\alpha\beta = \frac{1}{2}$</p> <p>$\therefore \frac{\alpha}{\beta} + \frac{\beta}{\alpha} = \frac{\alpha^2 + \beta^2}{\alpha\beta} = \frac{(\alpha + \beta)^2 - 2\alpha\beta}{\alpha\beta} = \frac{\frac{25}{4} - 1}{\frac{1}{2}} = \frac{21}{2}$</p>	1	2	
18	<p>Here, V be the volume of the solid metallic hemisphere of diameter 28cm then</p> $V = \frac{2\pi R^3}{3} = \frac{2}{3}\pi \times 14 \times 14 \times 14$ <p>And v be the volume of a cone of radius 7cm and height 16cm then</p> $v = \frac{1}{3}\pi r^2 h = \frac{1}{3}\pi \times 7 \times 7 \times 16$ <p>\therefore Required no. of cones = $\frac{V}{v} = \frac{\frac{2}{3}\pi \times 14 \times 14 \times 14}{\frac{1}{3}\pi \times 7 \times 7 \times 16} = 7$</p>	1	2	
19	Textbook 3.4	1+1+1	3	
20	$\dots \dots \dots$		3	
21	<p>Graph of $2x + y = 8$</p> <p>Graph of $x - 3y + 3$</p> <p>Point of intersection $P(3, 2) \therefore x = 3, y = 2$</p>	1	3	
22	<p>Given : A circle with centre O, two parallel tangents $\overleftrightarrow{AP}, \overleftrightarrow{BQ}$ touching the circle at A, B respectively and a third tangent PQ touching the circle at C and intersecting AP, QB at P and Q respectively.</p>		1	3

	<p>To prove : $\angle POQ = 90^\circ$</p> <p>Construction : Join \overline{OA}, \overline{OB}, \overline{OC}</p> <p>Proof : Since $PA \parallel QB$, therefore AB is a diameter of the circle so that $\angle AOB =$ a straight angle $= 180^\circ \dots\dots\dots(i)$</p> <p>In triangles OAP and OCP,</p> <p style="padding-left: 40px;">$\angle OAP = \angle OCP = 90^\circ$</p> <p style="padding-left: 40px;">$OP = OP$ (common)</p> <p style="padding-left: 40px;">$OA = OC$ (radius of same circle)</p> <p>By RHS congruence,</p> <p style="padding-left: 40px;">$\triangle OAP \cong \triangle OCP$</p> <p>$\therefore \angle POA = \angle POC = \angle 1$ (say)</p> <p>Similarly it can be shown that $\angle QOB = \angle QOC = \angle 2$ (say)</p> <p>Now, equation (i) gives</p> <p style="padding-left: 40px;">$\angle 1 + \angle 1 + \angle 2 + \angle 2 = 180^\circ$</p> <p>$\Rightarrow \angle 1 + \angle 2 = 90^\circ$</p> <p>$\Rightarrow \angle POC + \angle QOC = 90^\circ$</p> <p>$\Rightarrow \angle POQ = 90^\circ$</p>	1	
23	Book article 10.5 (a)	1	3
24	1	3
25	Book article 1.5 listed property (6)	1	4
26	<p>Speed of the motor boat in still water = 15 km/hr</p> <p>Let the speed of the stream be x km/hr</p> <p>Upstream speed of the motor boat = $15 - x$ km/hr</p> <p>Downstream speed of the motor boat = $15 + x$ km/hr</p> <p>By the given condition,</p> <p style="padding-left: 40px;">$\frac{36}{15-x} - \frac{36}{15+x} = 1$</p> <p>$\Rightarrow 36(15+x) - 36(15-x) = 15^2 - x^2$</p> <p>$\Rightarrow 72x = 15^2 - x^2$</p> <p>$\Rightarrow x^2 + 72x = 15^2$</p> <p>$\Rightarrow x^2 + 2x \cdot 36 + 36^2 = 36^2 + 15^2$</p> <p>$\Rightarrow (x+36)^2 = 3^2(12^2 + 5^2) = 3^2 \times 13^2$</p> <p>$\therefore x+36 = 39$ (neglecting inadmissible -ve square root)</p> <p>$\Rightarrow x = 3$</p> <p>i.e. speed of the stream = 3 km/hr.</p>	1	4

	<p>Or</p> <p>The number of seats in the successive rows of seats in the auditorium form the finite AP:</p> <p>10, 13, 16,, 64</p> <p>Here, $a = 10$, $d = 3$ and $l = 64$</p> <p>If n be the number of rows of seats, then</p> $a + (n-1)d = l$ $\Rightarrow 10 + 3(n-1) = 64$ $\Rightarrow n = 19$ <p>i.e. no. of rows of seat = 19</p> <p>Total number of seats = $10 + 13 + 16 + \dots + 64$</p> $= \frac{n}{2}(a+l)$ $= \frac{19}{2}(10+64) = 703$	1	
		1	4
		1	
		1	
27	Book article 11.3		4
28	Book theorems		5
29	Book constructions		5
30		1	
	 <p>Let P and Q are the positions of the aeroplane when the first and second observations are made.</p> <p>Then, $PQ = 300m$</p> <p>Let $OP = h$ where O is the point on the ground vertically below P.</p> <p>Let A and B be the two consecutive kilometer stones on the straight road.</p> <p>Then, $AB = 1000m$</p> <p>Let $OB = x$</p>	1	

	<p>Then from the rt. $\triangle OAP$</p> $\tan 30^\circ = \frac{h}{x+1000}$ $\Rightarrow x+1000 = \frac{h}{\tan 30^\circ}$ $\Rightarrow h\sqrt{3} = x+1000 \dots\dots\dots(i)$ <p>And from the rt. $\triangle OBQ$</p> $\tan 60^\circ = \frac{h+300}{x}$ $\Rightarrow x = \frac{h+300}{\sqrt{3}} \dots\dots\dots(ii)$ <p>From (i) and (ii)</p> $\sqrt{3}h = \frac{h}{\sqrt{3}} + \frac{300}{\sqrt{3}} + 1000$ $\Rightarrow \left(\sqrt{3} - \frac{1}{\sqrt{3}}\right)h = (100\sqrt{3} + 1000)$ $\Rightarrow \left(\frac{3-1}{\sqrt{3}}\right)h = 100(\sqrt{3} + 10)$ $\Rightarrow h = 50(\sqrt{3} + 1)\sqrt{3}$ $\Rightarrow h = 50(3 + \sqrt{3})$	<p>5</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	
31	<p>Let R, H, L be the radius, height and slant height of the whole cone and let r, h, l be those of the smaller cone cut off so that $H=2h$ (given)</p> <p>Using properties of similar triangles, ($\triangle ABC \sim \triangle ADE$) we have</p> $\frac{R}{r} = \frac{H}{h} = \frac{L}{l} = 2 \dots\dots\dots(i)$ <div data-bbox="790 1160 1034 1500"> </div> <p>Curved surface area of the whole cone = $\pi R L$</p> <p>Curved surface area of the smaller cone = $\pi r l$</p> <p>\therefore Curved surface area of the frustum = $\pi(R L - r l)$</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	

$$\begin{aligned}
 \text{Required ratio} &= \frac{\pi r l}{\pi(RL - rl)} \\
 &= \frac{rl}{RL - rl} \\
 &= \frac{rl}{2r.2l - rl} \\
 &= \frac{rl}{3rl} \text{ (using (i))} \\
 &= \frac{1}{3} \\
 &= 1 : 3
 \end{aligned}$$

1

6

1

1

32

From the given data, we form the following table :

Class	Mid value x_i	Frequency f_i	Cum. Freq.	$u_i = \frac{x_i - 110}{20}$	$f_i u_i$
20 - 40	30	6	6	-4	-24
40 - 60	50	9	15	-3	-27
60 - 80	70	11	26	-2	-22
80 - 100	90	14	40	-1	-14
100 - 120	110	22	62	0	0
120 - 140	130	13	75	1	13
140 - 160	150	10	85	2	20
160 - 180	170	8	93	3	24
180 - 200	190	7	100	4	28
		N = 100			-2

2

$$\text{Mean, } \bar{x} = a + h\bar{u} = 110 + 20 \times \frac{-2}{100} = 110 - 0.4 = 109.6$$

1

Since, $\frac{N}{2} = 50$ lies between the cumulative frequencies 40 and 62.

Therefore, 100 - 120 is the median class.

1

$$\text{Median} = 100 + \frac{50 - 40}{22} \times 20 = 109.09$$

6

Model class is 100 - 120 with $f_m = 22$, $f_1 = 14$ $f_2 = 13$

1

$$\therefore \text{Mode} = 100 + \frac{22 - 14}{44 - 14 - 13} \times 20 = 107.06$$

1

2019

SCIENCE

Full Marks - 80

Pass Marks - 20

Time : Three hours

Attempt all questions.

The figures in the right hand margin indicate full marks for the questions.

SECTION - A
(CHEMISTRY)

Marks - 26

Answer Question Nos. 1 to 4 in a sentence, a word or a phrase
or an equation.

1. Why do He_2 molecules not exist ? 1
 He_2 අණුකීකරණයක් සිදු නොවන්නේ ?
2. Why do ionic compounds conduct electricity in molten state ?
 අයනීය සංයුක්තවල විදුලි විද්‍යාත්මක තත්ත්වයේ විදුලි ගතවීමට හේතු වන්නේ ?
3. Urine sample of a patient was found to contain excess of uric acid. What will be the pH range of this urine sample ? 1
 අයුරු ප්‍රතිශතයක් අධික අම්ලයක් අඩංගු වූ ප්‍රතිශතයක් සිදු වූ විට pH පරාසය කුමක් වේ ?

Contd.

4. Write the reaction between aqueous solutions of sodium hydroxide and acetic acid. 1

කෝශයේ දියවන ලද සෝඩියම් හයිඩ්‍රොක්සයිඩ් සහ ඔක්සාලික් අම්ලය අතර ප්‍රතික්‍රියාවක් සිදුවන බව පෙන්වන රසායනික සමීකරණයක් ලියන්න.

Answer Question Nos. 5 to 8 in about 30 words.

5. Nitrogen (At. No. 7) and phosphorus (At. No.15) belong to the same group of periodic table.

Using the usual symbols describe how N will combine with P to form a simplest compound. Give the name of the compound. 2

නයිට්‍රජන් (At. No.7) සහ පොස්පරස් (At. No. 15) අයත් වන්නේ පරිච්ඡේදයකටය. ඒවායේ සාමාන්‍ය රසායනික සංකේත භාවිත කරවා N සහ P අතර සිදුවන සරලතම සංයුක්තයේ රසායනික සමීකරණයක් ලියන්න. සංයුක්තයේ නම දෙන්න.

6. How are the following pairs of compounds related ? 2

පහත දැක්වෙන සංයුක්ත යුගල දෙකේ සම්බන්ධය කුමක් වේ ?

(i) $\text{CH}_3 \cdot \text{CHOH} \cdot \text{CH}_3$ and $\text{CH}_3\text{CH}_2\text{CH}_2\text{OH}$

(ii) $\text{CH}_3 \cdot \text{CH} = \text{CH} \cdot \text{CH}_3$ and $\text{CH}_3 \cdot \text{CH} = \text{CH}_2$

7. Draw a neat labelled diagram for the electrolytic refining of impure Nickel indicating the electrolytic bath to be used. 2

ලෝහයෙන් තොරව පවතින නිකල්වල විද්‍යුත් විඛණ්ඩනය සඳහා භාවිත කළ යුතු විද්‍යුත් විඛණ්ඩන ද්‍රව්‍යය සඳහා ලේබල් සහිත රූපයක් අඳින්න.

8. General formula for a homologous series of compounds is $\text{C}_n\text{H}_{2n+1}\text{COOH}$. Write the chemical formula of the first member of the series. What product will be obtained when this compound is treated with sodium metal ? 2

සමානාකාරී සංයුක්ත සමූහයක සාමාන්‍ය රසායනික සමීකරණය $\text{C}_n\text{H}_{2n+1}\text{COOH}$ වේ. මෙම සමූහයේ ප්‍රථම සාමාන්‍ය සංයුක්තයේ රසායනික සමීකරණය ලියන්න. මෙම සංයුක්තය සෝඩියම් මetall සමඟ ප්‍රතික්‍රියා කළ විට ලැබෙන නිෂ්පාදනය කුමක් වේ ?

Answer Question Nos. 9 to 11 in about 60 words.

9. Show the classification of the first twenty elements (at. no.1 to 20) in accordance with the Modern Periodic Table. 3

පළමු 20 පරමාණුක අංක 1 සිට 20 දක්වා ඇති මූලද්‍රව්‍ය වර්ගීකරණය කරන්න. 3

10. With the help of a suitable example, describe the general method used for the extraction of metals of low activity from its concentrated ore. 3

අඩු ක්‍රියාකාරීතාවයක් ඇති මූලද්‍රව්‍ය වර්ගීකරණය කරන්න. 3

11. Starting from sodium chloride, briefly describe the preparation of sodium hydroxide and baking soda. 3

සෝඩියම් ක්ලෝරයිඩ් සිට සෝඩියම් හයිඩ්‍රොක්සයිඩ් සහ බේකිං සෝඩා සකස් කිරීමේ ක්‍රියාවලිය සඳහන් කරන්න. 3

Answer question No. 12 in about 100 words.

12. Illustrate the following reactions with suitable examples. 5

ඔක්සිකරණ, තාප විඝටන සහ ඔක්සිකරණ ප්‍රතික්ෂේපන ප්‍රතික්ෂේපන සඳහා සුදුසු උදාහරණ සපයන්න :

- (i) Oxidation reaction

ඔක්සිකරණ ප්‍රතික්ෂේපන ප්‍රතික්ෂේපන

- (ii) Thermal decomposition reaction

තාප විඝටන ප්‍රතික්ෂේපන ප්‍රතික්ෂේපන

- (iii) Exothermic reaction

ඔක්සිකරණ ප්‍රතික්ෂේපන ප්‍රතික්ෂේපන

- (iv) Double displacement reaction

ස්ථාපිත ප්‍රතික්‍රියා

- (v) Enzyme catalyzed reaction

ආවේණික ස්පන්දන ප්‍රතික්‍රියා

SECTION - B

(PHYSICS)

Marks - 26

Answer Question Nos. 13 to 16 in a word or a sentence each.

13. What is electromagnetic induction ? 1

ඛණ්ඩාංක ප්‍රතික්‍රියා ක්‍රියාත්මක වීමේදී ?

14. State Fleming's right hand rule. 1

දකුණු අතේ දකුණු අතේ අවස්ථා දෙක ||

15. You are provided a resistor, a voltmeter, a battery and a key. Draw an electric circuit using the given components, that may be used to measure the potential difference across the resistor. 1

වෝල්ට්මීටර්, ගාල්වැනි, ප්‍රවේග ප්‍රභවය සහ ප්‍රවේග ප්‍රභවයක් ඇති ප්‍රවේග ප්‍රභවයක් ඇති ||
 තවද, සැලකිය යුතු ලෙසින් ඛණ්ඩාංක ප්‍රතික්‍රියා ක්‍රියාත්මක වීමේදී || සැලකිය යුතු ලෙසින්
 ප්‍රවේග ප්‍රභවයක් සහ වෝල්ට්මීටර් ඇති ප්‍රවේග ප්‍රභවයක් ඇති ප්‍රවේග ප්‍රභවයක් ඇති ||

16. Draw a ray diagram of formation of image for an object placed in front of a convex mirror. 1

ඛණ්ඩාංක ප්‍රතික්‍රියා ක්‍රියාත්මක වීමේදී සැලකිය යුතු ලෙසින් ප්‍රවේග ප්‍රභවයක් ඇති ප්‍රවේග ප්‍රභවයක් ඇති ||

17. A wire of $7 \Omega / \text{m}$ is turned-in the form of a circle of diameter 2m. Find the resistance across the ends of the diameter. 2

7Ω/m ଟିଏ ମେଡ଼େସ ଏକ୍ସ ଟେକ୍ନୋଲୋଜି 2m ମାମ୍ ଲେଆନ ଏବଂ ଇଣ୍ଡିଆନା ॥ ଟେକ୍ନୋଲୋଜି
ମାମ୍ ଏବଂ ଟିଏମ୍ ଟିଏମ୍ ଟିଏମ୍ ଟିଏମ୍ ଟିଏମ୍ ଟିଏମ୍ ॥

- ગાંધીજીનાં ટેકેસ ટેંક નાં અસલ અંગ્રેજીનાં હુ નુમ્માંલ સ્થાનિ અર્થોર્થ નાં નાં નાં
 નાં નાં નાં ॥

- ମାଫିଆ କ୍ଷମଣୀ ଗାଁଟିଆପଞ୍ଚାୟତ ଛାଡ଼ିବା ପରେ କାହିଁ ?

- ପଞ୍ଚେ ଯତ୍ରାଣି ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ଶ୍ରୀମତୀ ॥

Answer Question No. 21 to 23 in about 50 words.

- A.C. ଓ D.C. ଜ୍ଞାନୀ ଚାହାନ୍ତି ଯେଉଁଠି ଏହାମାନଙ୍କର ପାରମ୍ପରିକ ଗୁଣ ॥

- ૬૬૦૦ W કેટ યુનિવર્સિટીના નિર્ણય અનુસાર ઇન્સ્ટિટ્યુટ યાદવ ડી નર્મ મેયન મુખ અનુસાર
 લેવાઈશે. યુનિવર્સિટીના નિર્ણય ૬ મે ૨૦૦૦ યાદવના ઇન્સ્ટિટ્યુટ ૧૯૯૯ લેવાઈશે. ૧૯૯૯
 યાદવ મેયન ?

23. What is critical angle ? State the conditions of total internal reflection of light? 1+2=3

කුණුකෝණය කුමක් ? සම්පූර්ණ අභ්‍යන්තර ප්‍රතිබිම්බීකරණය සඳහා ඇති කොන්දitions කුමක් ?

Answer Question No. 24 in about 100 words.

24. Describe the working of an electric motor by indicating the role played by the different parts used to construct the same. 5

විදුලි ධාරා ධ්‍රැවණයේ ක්‍රියාකාරීත්වය විස්තර කරමින් එහි සංරචකවල කාර්යයන් සඳහන් කරන්න.

SECTION-C

(BIOLOGY)

Marks - 28

Answer Question Nos. 25 to 28 in one sentence

25. What is a reflex action ? 1

ප්‍රතික්රියා ක්‍රියාව කුමක් ?

26. Which organ is called the gustatory organ ? 1

කුණුකර්මය කුමන අවයවයකි ?

27. Define food chain. 1

ආහාර ශ්‍රේණිය යනු කුමක් ?

28. "Apart from providing oxygen, trees also help in the purification of air in many cities." Justify the statement by giving one point. 1

"විදුලි ධාරා ධ්‍රැවණයේ ක්‍රියාකාරීත්වය විස්තර කරමින් එහි සංරචකවල කාර්යයන් සඳහන් කරන්න."

Answer Question nos. 29 to 33 in about 30 words.

29. Describe briefly the process of budding in the yeast. 2

ඔලිවුස් ප්‍රජාපතික ක්‍රියාවලියේ ක්‍රියාත්මක වීමේදී සිදුවන ක්‍රියා 11

30. Name the hormones responsible for the puberty in males and females.

1+1=2

පුරුෂයන්ගේ සහ ඔහුගේ ප්‍රජාපතික ක්‍රියාවලියේ ක්‍රියාත්මක වීමේදී සම්බන්ධීකරණය කරන හෝමෝනවල නම් කොට දෙකක් ?

31. Give two significance of transpiration. 2

ප්‍රතිපෝෂණය, ජලය පරිවහනය, සහ ප්‍රතිරෝධීතාවය වැනි දේ 11

32. Differentiate between renewable resources and non-renewable resources with suitable examples. 2

ප්‍රතිනව්‍යවකාශීය සම්පත් සහ නව නිපදවිය නොහැකි සම්පත් වලට සුදුසු උදාහරණ සපයා දෙන්න. 11

33. Draw a neat diagram of longitudinal section of a flower and label ovary, style and stigma. 1 + 1 = 2

පුඤ්ඤ-ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය 11

Answer Question Nos. 34 to 36 in about 50 words.

34. How can the flowering plants be propagated without using seed? Predict two advantages of such type of propagation. 3

විවිධ ආකාරයෙන් ප්‍රජාපතික ක්‍රියාවලිය සිදු කළ හැකි ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය, ප්‍රතිපෝෂණය 11

35. Explain the role of decomposers in an ecosystem.

3

රක්තෝර්මයක් පැසුරු කිරීමේදී විභව කාර්යයන් මොනවාද ?

36. Identify how deforestation leads to many far reaching consequences ? Give three points.

3

වන විනාශයට හේතු වන ප්‍රධාන හේතු මොනවාද ? ඒවායේ දුර්වල ප්‍රතිඵල මොනවාද ?

Answer Question No. 37 in about 100 words.


37. Explain the evidence of evolution from comparative anatomy and morphology.

5

සාපේක්ෂව සමානාකාරීතාවයේ සාක්ෂි මොනවාද ?

SCORING KEY FOR H.S.L.C. EXAMINATION 2019

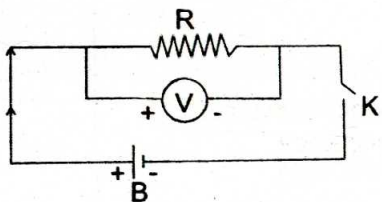
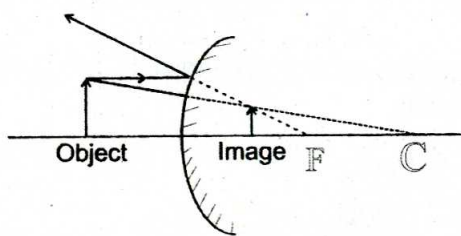
Subject : Chemistry

Q.No.	Key	Mark for each point	Total Marks																																																				
1	He has complete K shell which cannot receive or donate electrons.	1	1																																																				
2	Ions became free from each other in the molten state.	1	1																																																				
3	Urine is highly acidic/acidic and PH range will be below 7.	1	1																																																				
4	$NaOH(aq)+CH_3COOH(aq)\rightarrow CH_3COONa(aq)+H_2O$	1	1																																																				
5	 or $N\equiv P$ or PN Phosphorus Nitride	1																																																					
6	(i) Position isomers/structural isomers	1																																																					
	(ii) Homologues	1	2																																																				
7	Drawing	1																																																					
	Labelling	1	2																																																				
8	$HCOOH / CH_3COOH$	1																																																					
	Sodium formate/methanoate, $HCOONa / CH_3COONa$	1	2																																																				
9	<table border="1"><thead><tr><th></th><th colspan="9">GROUPS</th></tr><tr><th></th><th>1</th><th>2</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th></tr></thead><tbody><tr><td rowspan="4">PERIODS</td><td>1st P d ¹H</td><td></td><td></td><td></td><td></td><td></td><td></td><td>2nd He</td></tr><tr><td>2nd P d ³Li</td><td>⁴Be</td><td>⁵B</td><td>⁶C</td><td>⁷N</td><td>⁸O</td><td>⁹F</td><td>¹⁰Ne</td></tr><tr><td>3rd P d ¹¹Na</td><td>¹²Mg</td><td>¹³Al</td><td>¹⁴Si</td><td>¹⁵P</td><td>¹⁶S</td><td>¹⁷Cl</td><td>¹⁸Ar</td></tr><tr><td>4th P d ¹⁹K</td><td>²⁰Ca</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> Correct number of group numbering Correct number of periods Correct arrangement		GROUPS										1	2	13	14	15	16	17	18	PERIODS	1 st P d ¹ H							2 nd He	2 nd P d ³ Li	⁴ Be	⁵ B	⁶ C	⁷ N	⁸ O	⁹ F	¹⁰ Ne	3 rd P d ¹¹ Na	¹² Mg	¹³ Al	¹⁴ Si	¹⁵ P	¹⁶ S	¹⁷ Cl	¹⁸ Ar	4 th P d ¹⁹ K	²⁰ Ca							1 1 1	3
	GROUPS																																																						
	1	2	13	14	15	16	17	18																																															
PERIODS	1 st P d ¹ H							2 nd He																																															
	2 nd P d ³ Li	⁴ Be	⁵ B	⁶ C	⁷ N	⁸ O	⁹ F	¹⁰ Ne																																															
	3 rd P d ¹¹ Na	¹² Mg	¹³ Al	¹⁴ Si	¹⁵ P	¹⁶ S	¹⁷ Cl	¹⁸ Ar																																															
	4 th P d ¹⁹ K	²⁰ Ca																																																					

10	<p>Sulphides and oxides of such metals can be reduced by heat alone.</p> <p>e.g. $2\text{HgS}(s) + 3\text{O}_2(g) \xrightarrow{\text{heat}} 2\text{HgO}(s) + 2\text{SO}_2(g)$</p> <p>$2\text{HgO}(s) \xrightarrow{\text{heat}} 2\text{Hg}(l) + \text{O}_2(g)$</p>	1 1 1	3
11	<p>NaOH can be prepared by the electrolysis of aqueous NaCl Solution.</p> <p>$2\text{NaCl}(aq) + 2\text{H}_2\text{O}(l) \xrightarrow{\text{electricity}} 2\text{NaOH}(aq) + \text{Cl}_2(g) + \text{H}_2(g)$</p> <p>Baking soda or Sodium bicarbonate is obtained by bubbling carbon dioxide in a saturated solution of NaCl which contain ammonia.</p> <p>$\text{NaCl} + \text{H}_2\text{O} + \text{CO}_2 + \text{NH}_3 \longrightarrow \text{NaHCO}_3 + \text{NH}_4\text{Cl}$</p>	$\frac{1}{2}$ 1 $\frac{1}{2}$ 1	3
12	<p>(i) If a substance gains oxygen during a reaction it is called an oxidation reaction. Or Any definition of oxidation with an example.</p> <p>(ii) Decomposition of a substance on heating. e.g. $\text{CaCO}_3(s) \xrightarrow{\text{heat}} \text{CaO}(s) + \text{CO}_2(g)$</p> <p>iii) Exothermic reactions release heat energy. e.g. $\text{CH}_4(g) + 2\text{O}_2(g) \longrightarrow \text{CO}_2(g) + 2\text{H}_2\text{O}(g) + \text{Heat}$</p> <p>(iv) Exchange of ions between the reactants generally leading to the formation of a precipitate. e.g. $\text{AgNO}_3(aq) + \text{HCl}(aq) \longrightarrow \text{AgCl}(s) + \text{HNO}_3(aq)$</p> <p>(v) Any reaction catalyzed by enzymes e.g. $\text{C}_{12}\text{H}_{22}\text{O}_{11} + \text{H}_2\text{O} \xrightarrow{\text{Invertase}} \text{C}_6\text{H}_{12}\text{O}_6 + \text{C}_6\text{H}_{12}\text{O}_6$ <div style="display: flex; justify-content: space-around; width: 100%;"> Sucrose Glucose Fructose </div> </p>	1 1 1 1 1	5

SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject : Physics

Q.No.	Key	Mark for each point	Total Marks
13	The relative motion between a magnet and a coil can generate electric current in the coil. The phenomenon is called electromagnetic induction.	1	1
14	Stretch the thumb, forefinger and middle finger of the right hand so that they are \perp to each other. Then The thumb directs along motion of conductor The forefinger indicates the direction of magnetic field. The middle finger indicates the direction of induced current.	1	1
15		1	1
16		1	1
17	Resistance of the first semi circle, $R_1 = \pi r \times 7 = \frac{22}{7} \times 7 = 22\Omega$ Resistance of the second semi circle, $R_2 = \pi r \times 7 = \frac{22}{7} \times 7 = 22\Omega$	$\frac{1}{2}$ $\frac{1}{2}$	

	Using the relation $\frac{1}{R_p} = \frac{1}{R_1} + \frac{1}{R_2}$ $\frac{1}{R_p} = \frac{1}{22} + \frac{1}{22} = \frac{2}{22} = \frac{1}{11} \Omega$ $\therefore R_p = 11\Omega$		2
18	(i) Sunlight reaches the Earth's atmosphere and is scattered in all directions by the gases and particles in the air (ii) Blue light is scattered more than the other colours because it has the shortest wavelength. That is why the sky appears blue to an observer from the surface of the Earth.	1 1	 2
19	The 2 merits of using wind energy are (i) It is an environment friendly effort. (ii) No recurring expenses for energy production required.	1 1	 2
20	Any four characteristics of a good source of energy	$\frac{1}{2} \times 4$	2
21	(i) Voltage of AC can be stepped up or down with the help of a transformer. (ii) Energy loss in long distance transmission can be minimized. (iii) AC can be converted into DC easily.	1 1 1	 3
22	Total energy consumed in 5 days = $Power \times time$ $= 1200W \times 3 \text{ hrs/day} \times 5 \text{ day}$ $= 18000Wh$ Total cost = $Rs. (18 \times 2) = Rs. 36$	1 1 1	 3
23	Definition of Critical angle (i) 1 st condition (ii) 2 nd Condition	1 1 1 1	 3
24	Explanation of working of electric motor	5	5

SCORING KEY FOR H.S.L.C. EXAMINATION 2019
Subject : Biology

Q.No.	Key	Mark for each point	Total Marks
25	Involuntary sudden action in response to something in the environment is called the reflex action.	1	1
26	Tongue is called gustatory organ	1	1
27	It is referred as transfer of energy (food) from the producer through a series of consumers.	1	1
28	Plants absorb and assimilate the pollutants which provide oxygen by the process of photosynthesis.	1	1
29	Yeast cell forms a small bud into which cytoplasm and a nucleus pass which remains attached initially to the parent cell. Eventually it get separated from the parent body to grow into a new individual.	2	2
30	Hormone responsible for puberty in males - testosterone. Hormone responsible for the puberty in females - Oestrogen	1 1	2
31	(i) It helps in the absorption and movement of water and minerals dissolved in it from the roots to the leaves. (ii) It also helps in temperature regulation	1 1	2
32	Renewable resources – These are inexhaustible resources and can be regenerated within a given span of time. Examples are forest, wildlife, wind energy, tidal energy, hydro power, solar energy etc. Non-renewable resources – These are resources which cannot be regenerated. Examples are coal, petroleum, minerals etc.	1 1	2
33	Drawing of L.S. of a flower and labeling	1+1	2
34	Vegetative propagation is the formation of new plants from the units of vegetative body such as roots, stems, leaves and buds etc. Advantages :	1	

35	(i) Artificial propagation is successfully performed in plants like rose, orange, grapes, sugarcane, banana, jasmine etc.	1	3
	(ii) Plants raised through vegetative propagation are the exact replica of the parent.	1	
36	(i) Decomposers break down the dead bodies and thus become agents for decay	1	3
	(ii) The materials in the dead bodies are converted into organic and inorganic substances.	1	
	(iii) They make the soil fertile and make these substances for the producers.	1	
37	Any three :		3
	(i) the existence of many wildlife species are threatened due to the destruction of their natural habitat.	1	
	(ii) Rainfall is affected due to changes in hydrological cycle	1	
	(iii) Problems of soil erosion and loss of soil fertility increase	1	
37	(iv) In hilly areas deforestation leads to landslides	1	3
	Comparative anatomy :		
	Homologous organs -		
	(i) The organs which have the same fundamentals structure but are different in functions are called homologous organs.		
	Examples, forelimbs of human, front flipper of whale, a forelimb of sheep		
	In plants a thorn of Bougainvillea or a tendril of cucurbita both arising in the axillary position		
	(ii) Homologous organ indicates common ancestry		
	(iii) The study of homologous organs reveal divergent evolution.		

<p>Analogous organs –</p> <ul style="list-style-type: none"> (iv) The organs which have similar functions but are different in their structural details and origin are called analogous organs. (v) Examples – the wings of an insect are analogous to wings of a birds Thorns (in Duranta), spines (in opuntia) and Prickles (in rose) (vi) The analogous structures are the result of convergent evolution <p><i>(Any three from comparative account)</i></p>	<p>1x3</p>	<p>5</p>
<p>Morphological study :</p> <ul style="list-style-type: none"> (i) From the study of fossils, one can understand about the life forms of the past. (ii) It also enables to trace the origin and trend of evolution of several groups of plants and animals. (iii) fossils that we find closer to the surface are more recent than the fossils that we find in deeper layers. <i>(Any two from the morphological study).</i> 	<p>1x2</p>	

2019**SOCIAL SCIENCE***Full Marks - 80**Pass Marks - 20**Time : Three hours*

The figures in the right hand margin indicate full marks for the questions.

SECTION -A**(GEOGRAPHY)****Marks - 27**

Answer Question Nos. 1 and 2 in a sentence each.

1. Why does the Himalayan region have no large reserves of economically viable mineral resources? 1

කිසිදෙකක් තමන්ගේ ඉතා-සුලභව පිහිටා ඇති භූමිකාමය වශයෙන් සහතික කළ නොහැකි ප්‍රදේශයක් ?

2. Why is terrorism regarded as a man-made disaster ? 1

කුමන්ත්‍රණයක් මර්ධනයක් ලෙස සලකනු ලබන්නේ ඇයි ?

Answer Question Nos. 3 to 5 in about 30 words each.

3. Organic farming has been taken up widely today in India. Justify the statement with two points of support. 2

ආවේණික වගා කිරීමේ ක්‍රමය ඉන්දියාවේ බහුලව පිළිගැනීමට ඇත. මෙයට දෙකකට වඩා සහතික කරන්න.

Contd.

4. Mention the two most important cereal crops of Manipur. 2
 ਮਨੀਪੁਰ ਦੇ ਦੋ ਸਭ ਤੋਂ ਮਹੱਤਵਪੂਰਨ ਧਾਨ ਪਸ਼ਾਕਾਂ ਦਾ ਨਾਮ ਦੱਸੋ ॥
5. Give two points of difference between Mumbai Port and Kochi Port in respect of location and size. 2
 ਮੁੰਬਈ ਪੋਰਟ ਅਤੇ ਕੋਚੀ ਪੋਰਟ ਦੀ ਸਥਿਤੀ ਅਤੇ ਆਕਾਰ ਦੇ ਦੋ ਅੰਤਰ ਦੱਸੋ ॥
6. Draw a full page outline map of India and mark and label therein the following :

The Vishakapatnam Steel Plant

$$1+1=2$$

தகனம் கடைசியாகப் பிடிக்கப்பட்டது. இதுவே இவ்விதமாகப் பிடிக்கப்பட்டது.

ମାତୃହ୍ୟାସେତମ୍ ମୃତ୍ୟୁନି ଯାତେଽଽଽ

Answer Question Nos. 7 to 70 in about 50 words each :

7. Explain any three benefits that we obtain directly and indirectly from forests.

3

අපට ලැබෙන සෑම ආර්ථික හා පරිසරයේ වැදගත්කමක් මෙන්ම අපට ලැබෙන සෑම සහනක්ම නිසිවින්ම ලබා ගත හැකිය.
8. Suggest any three measures which would be helpful for the conservation of water resources.

3

ජලාශ්‍රිත සම්පත් සංරක්ෂණය කිරීම සඳහා ගන්නා යොදා ගත හැකි තුන්ම පියවරුන් විස්තර කරන්න.
9. Explain three main problems that are being faced by Indian farmers in agricultural sector.

3

ඉන්දියාවේ ජාතික භූ-මානව සම්පත් සංරක්ෂණය කිරීම සඳහා ගන්නා යොදා ගත හැකි තුන්ම පියවරුන් විස්තර කරන්න.
10. Why is it necessary to adopt a sustainable path of energy resources development and conservation in India ?

3

[illegible]

11. Explain any five factors that have led to the localisation of jute industry in and around Hugli basin. 5

Or / 245517

[illegible]

Marks - 27

12. In what ways did the liberalism bring changes in France since the French Revolution ? 3

13. Write three important results of the Revolution of 1848 in France. 3

14. "A real test of the Patriotism of the Congress was on the question of the partition of Bengal in 1905." Justify the statement by giving three points.

ਭਗਵੰਤ ਪ੍ਰਭਾਕਰਾਯ ਜਾਤਿਸ੍ਰੁਤ ਸੇਵਕ ਪਤੀ ਸੁਖਨ ਚੰਦ ਸ਼ਕਤਿ ॥

15. Write the ill effects brought by the Second World War to Manipur. 3
 ৱাৰ্ল্ড ৱাৰৰ দ্বিতীয় বিশ্ব যুদ্ধৰ ফলস্বৰূপে মণিপুৰলৈ আনকৈ আছিল কি কি অসুবিধা আছিল ॥
16. On the map of India drawn as answer to Question No.6 (of Geography portion), locate the places with name where : 2
 (a) General Dyer fired on the crowd in 1919,
 (b) Mahatma Gandhi broke the Salt law.s
১৬. (of Geography portion) ভাৰতৰ মানচিত্ৰত নাম দিয়া স্থানবোৰৰ স্থান চিহ্নিত কৰা :
 (a) ১৯১৯ চনত জেনেৰেল ডায়েৰে জনতাৰ ওপৰত গুলি চলাইছিল।
 (b) মহাত্মা গান্ধীয়ে সোণালৈ প্ৰতিবাদ কৰিছিল ॥

Answer Question Nos 77 to 19 in about 30 words each.

17. Illustrate how the free -trade theories of Adam Smith overshadowed the mercantilist theories in England and other countries of the west in the middle of the nineteenth century. 2
 ১৭. এডাম স্মিথৰ মুক্ত বাণিজ্যৰ তত্ত্বই কি কিদৰে ইংলেণ্ড আৰু পশ্চিমীয়া দেশবোৰত মধ্যযুগীয় বাণিজ্যৰ তত্ত্বৰ ওপৰত ছায়াপাত কৰিছিল।
18. What prohibitions were imposed to the Indian press by promulgation of the Indian Press (Emergency Powers) Act in 1931. 2
 ১৮. ১৯৩১ চনত ভাৰতীয় প্ৰেস (অৱস্থাৰক্ষণ ক্ষমতা) আইনৰ জৰিয়তে ভাৰতীয় প্ৰেসৰ ওপৰত কি কি নিষেধাজ্ঞা আছিল ॥

19. Explain why it is said that Chinese and Japanese writings are on all types of literature ? 2

ලන්දනයේ සිටින ජාතිකයන්ගේ රැකවල්ලක් ලෙසින් චීන සහ ජාපානීය ලිඛිත කෘති සියලුම ආකාරයේ සාහිත්‍ය ක්ෂේත්‍රවල දක්නට ලැබේ.

Answer Question Nos. 20 and 21 in one sentence each.

20. Why was Gandhiji not satisfied with the outcome of the Second Round Table Conference, 1931 ? 1

ඉන්දියානු ස්වාධීනතා සටනේදී ගාන්ධි මහත්මයාණන්ගේ අදහස් පිළිබඳව 1931 දී පැවැත්වූ දෙවන රවුන් ටේබල් කොන්ෆරන්ස්වලදී ඔහුට තෘප්තිමත් නොවූයේ ?

21. Why was Germany called the most affected country in the First World War ? Give one point. 1

පළමු ලෝක යුද්ධයේදී ජර්මනිය බලපෑම් ලැබූ රටක් ලෙස හඳුන්වනු ලැබූයේ ?

Answer Question No. 22 in about 120 words.

22. State the consequences of the Great Economic crisis of 1929 - 1939 on England. 5

1929 - 1939 දී ලෝකයේ පැවැති විශාලතම මහා මාලිංගනයේ ඉංග්‍රීසියට ඇති වූ ප්‍රතිඵලයන් පිළිබඳව පැහැදිලි කරනු ලැබේ.

Or/එසේම

How did the industrialization in England and India affect handicraft industries of India ? 5

ඉංග්‍රීසියේ සහ ඉන්දියාවේ ආර්ථිකයේ වෙනස්කම් සිදුවීමට හේතු වූයේ කුඩා ආර්ථික ක්ෂේත්‍රයන්ට වඩා විශාල ආර්ථික ක්ෂේත්‍රයන්ට වාසි වීමයි.

28. Explain five main advantages by which we can prove that a democratic Government is better than the alternative ones. 5

SECTION - D
(ECONOMICS)

29. What are the various components of Gross National Income for providing more accurate picture of many developing countries ? 1

31. Point out the undesirable outcomes of the import substituting industrialization strategy during the Five Year plans of India. 1

Analyse how the Indo - Myanmar Border Trade Agreement as apart of Act East Policy shall transform the economy of the North Eastern states including Manipur.

7

Contd.

Subject: SOCIAL SCIENCE (GEOGRAPHY)

Q.No.	Key	Mark for each point	Total Marks	
1	Because of its complex geological structures	1	1	
2	Because terrorists deliberately act mass murder by carrying out suicide attacks, firings and bomb explosions.	1	1	
3	(i) In organic farming, crops are raised without use of factory made chemicals such as fertilisers and insecticides. Hence, it does not spoil the physical environment. (ii) The products of this type of farming are in great demand in international market.	1 1	2	
4	(i) Rice is the most important staple food crop of Manipur which is grown in both the hills and the plains (ii) Maize is the second most important food crop which is mainly grown in the hills. It is also grown in the plains as a part of kitchen gardening.	1 1	2	
5	Mumbai Port (i) It is located in Maharashtra. (ii) It is the largest sea port of the country and has a well sheltered and large natural harbor.	Kochi Port (i) It is located in Kerala. (ii) It lies at the opening of a lagoon and has a natural harbor with deep water.	1 1	2
6	(i) Drawing of the full page outline map of India with correct shape (ii) Showing and labelling The Vishakhapatnam Steel plant	1 1	2	
7	(i) Direct benefits: Wide variety commodities such as timber, firewood, woodpulp, medicinal plants etc. and other produces of industrial and commercial uses are obtained directly from forests.	1		

	<p>(ii) Indirect benefits:</p> <p>(a) forests help in checking soil erosion and air pollution as they help to recreate the quality of air that we breathe, the water we drink, the soil with which we produce our food crops.</p> <p>(b) They provide natural habitat to a variety of wildlife without which man cannot survive.</p>	<p>1</p> <p>1</p>	<p>3</p>
8	<p>Measures to be suggested:</p> <p>(i) To make and implement effective laws and policies for utilisation and sharing of surface water resources</p> <p>(ii) To adopt effective measures of water conservation with the uses of water saving technologies and methods.</p> <p>(iii) Attempts should also should be made to prevent water pollution.</p> <p>(iv) To encourage to take up watershed management, rainwater harvesting, water recycling and reuse methods. (Any three out of the above points)</p>	<p>1+1+1</p>	<p>3</p>
9	<p>(i) International Competition is very high in international market in quality and price of their products since foreign farmers sell their products at cheaper rates.</p> <p>(ii) The cost of production of agricultural items has been increased since the government has reduced investment in irrigation, power, rural roads, market and mechanization and subsidy on fertilisers.</p> <p>(iii) There is surplus flow of foreign agricultural products into the country due to reduction of import duties.</p>	<p>1</p> <p>1</p> <p>1</p>	<p>3</p>
10	<p>Reasons :</p> <p>(i) The need and consumption of energy resources in all the economic sectors such as agriculture, industry, transport, commerce, domestic etc. is increasing day by day since it is the basic requirement in them.</p>	<p>1</p>	

	(ii) As the result, India has become large consumers and imports of mineral fuels like coal, petroleum, natural gas etc.	1	3
	(iii) As the current rate of consumption, the known reserves of energy resources of the country will last only for 30-40 years.	1	
11	Reasons for the concentration of jute mills in the Hugli basin are: (i) Nearness to the jute growing areas. (ii) Inexpensive water transport with a good network of roadways and railways. (iii) Availability of ample water for retting the jute. (iv) Availability of cheap labourers and facilities of port. (v) Banking and insurance provided by Kolkata	1 1 1 1 1	5
	Or		
	(i) The yield per hectare of sugarcane is high in south India.	1	
	(ii) The sucrose content in sugarcane is also higher than of northern India.	1	
	(iii) Temperature in the range of 20°C to 30°C between January and April is Ideal for sugarcane cultivation in the south.	1	5
	(iv) In Utter Pradesh - Bihar belt sugarcane is produced by small cultivators but in the south sugarcane plantation are well established.	1	
	(v) The Co - operatives are more successful in the southern states.	1	

SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject : SOCIAL SCIENCE (HISTORY)

Q.No.	Key	Mark for each point	Total Marks
12	Any three or any relevant answer(s) : i. end of autocracy, clerical privileges, ii. a constitutional and representative form of government iii. freedom of the markets iv. the abolition of the state imposed restrictions	1+1+1	3
13	Any three or any relevant answer(s): i. Louis Philippe abdicated the throne and fled to England ii. National Assembly convened in May iii. monarchy was abolished and declared France a Republic iv. Suffrage granted to male adults above 21 years v. Jobs were guaranteed, and national workshops were set up vi. Republican constitution was proclaimed in November, with an elected president. vii. Louis Napoleon was elected as President	1+1+1	3
14	Any three or any relevant answer(s): i. The Partition of Bengal in 1905 was anti Congress move of Lord Curzon. ii. This plan was an anti-Congress political move engineered by Lord Curzon. iii. It aroused a strong anti-British sentiment in many parts of India. iv. The protest movement took the form of boycott of foreign goods and adoption of Indian goods. v. This was known as the Swadeshi movement	1+1+1	3

15	Any three or any relevant answer(s) : i) The bombing caused a lot of civilian casualty. ii) The civil administration of the state ceased to function. iii) The town was deserted, the traders and other inhabitants fled to the hills and rural areas. iv) The offices of the state government began to function at Kwakeithel, a suburb of the capital in the house of the Inspector of Police, Khomdram Dhanachandra Singh. The Johnstone High School started running at Khagempalli at the house of the headmaster. vi. The socio-economic condition had deteriorated. vii. There was crop failure viii. The people had to survive from the rations given by the government. ix A large number of people were evacuated to accommodate the army. x. The price of rice shot up as the paddy was to be supplied to the army, xi. Livestock were exhausted.	1+1+1	3
16	a) Jallian Walla Bagh / Amritsar b) Dandi	1+1	2
17	Any two or any relevant answer(s) : i. Great Britain repealed the 'Corn Laws' in 1846, which had restricted grain imports for several centuries. ii. Consequently, the British market was flooded with the cheap American grains and it hurt the British farmers to a great extent. iii. As England was more interested in developing more competitive industries, the repeal of these laws helped in the growth of British economic condition much better. iv. Other countries of the West gradually began to repeal the high tariffs and legal barriers which had long restricted trade.	1+1	2

18	<ul style="list-style-type: none"> i. This Act prohibited newspapers to publish of matter inciting to or encouraging murder or violence. ii. Act also curbed publication of any kind of Congress propaganda including messages from persons arrested or jailed 	1+1	2
19	Any two or any relevant answer(s) : <ul style="list-style-type: none"> i. Confucian Classics & Shintoism ii. novels iii. revolutionary writings iv. history & poetry 	1+1	2
20	Any one or any relevant answer(s) : <ul style="list-style-type: none"> i. Conference was deadlocked on minority issues, separate electorate for Muslim, depressed classes and Indian Christians. 	1	1
21	Any one or any relevant answer(s) : <ul style="list-style-type: none"> i. Germany had to pay fifty million pounds to the Allies as preliminary reparation amount by May 1921. ii. Germany had to manage for doing so by taking loan from the USA. iii. The German economy was almost collapsed in managing to pay the reparation amount. 	1	1
22	Any five or any relevant answer(s) : <ul style="list-style-type: none"> i) Due to the Great Depression, England could not continue to lead the industrial production. ii) The British monopoly in industry and trade came to a deteriorating situation. iii) Underdeveloped countries (Asia, Africa and South America) which in the pre-war period took loans from Britain for their development activities, were now starting to rely on their own economic resources. iv) In September, 1931 Britain went off the 'gold standard'. v) This led to the massive withdrawal of foreign deposits from Britain. 	1+1+1 +1+1	5

22	<p style="text-align: center;">Or</p> <p>Any five or any relevant answer(s):</p> <ul style="list-style-type: none"> i) The trade policy of England sought to promote the interests of British producers and traders only at the expense of India's product and traders. ii) In order to check the flow of Indian products most of the handicraft products at that time, the British government imposed heavy duties on Indian goods entering into Britain. iii) British goods were allowed free entry to India. ("Free Trade" policy adopted by the colonial Government). iv) As a result there were few buyers of Indian goods which became costlier. v) On the other hand cheap British goods swamped Indian markets. vi) Indian goods manufactured with traditional tools could not compete with British products manufactured on a mass scale with modern machines. vii) The introduction of modern industries in India led to new methods of producing machines replacing manual labour and hand-operated tools. viii) Industrialisation in India also displaced the highly individualistic nature of handicraft production. ix) Consequently Indian handicraft industries which were once flourishing industries gradually declined. x) This led to a large scale unemployment problem in India. 	<p>1+1+1</p> <p>+1+1</p>	5
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SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject : SOCIAL SCIENCE (POLITICAL SCIENCE)

Q.No.	Key	Mark for each point	Total Marks
23	Caste considerations are always taken into account at the time of ministry formation. Every chief minister tries to ensure proper representation of dominant castes in the formation of Council of ministers	1	1
24	Either enough power or adequate fund may be suggested.	1	1
25	Sectional interest groups work for the members of their section only while Public interest group works for the whole society.	1	1
26	(i) The word federation was deliberately avoided by the framers of Indian constitution because of diversity of India in many respects. (ii) They did not like the power of secession of constituent states from the Union which would be given by federation.	1 1	2
27	Advantages of Political Decentralization or local Government: (i) People have better knowledge of problems of their localities -Problems and issues are best settled at local level (ii) They know the needs of their locality and can manage things more effectively (iii) possible for the people to directly participate in decision making - habit of democratic participation.	1 1 1	3
28	We can say democracy is better because it: (i) promotes equality among citizens - no difference between high and low - rich and poor, equality being an ideal of democracy	1x5	5

	<ul style="list-style-type: none">(ii) enhances the dignity of individuals -the passion for respect and freedom are the basis of democracy.(iii) improves the quality of decision making - decisions are taken after due discussion and deliberation.(iv) provides a method to resolve conflicts - by peaceful negotiation on tables.(v) allows room to correct mistakes - the representatives who are not responsible may be given defeat in elections and they get the chance of correcting their mistakes.(vi) majority of the people support democracy against other alternatives being the most popular government.(vii) Democracy is the most legitimate and responsible government because rulers are elected by the people. <p>(any five points may be explained)</p>		
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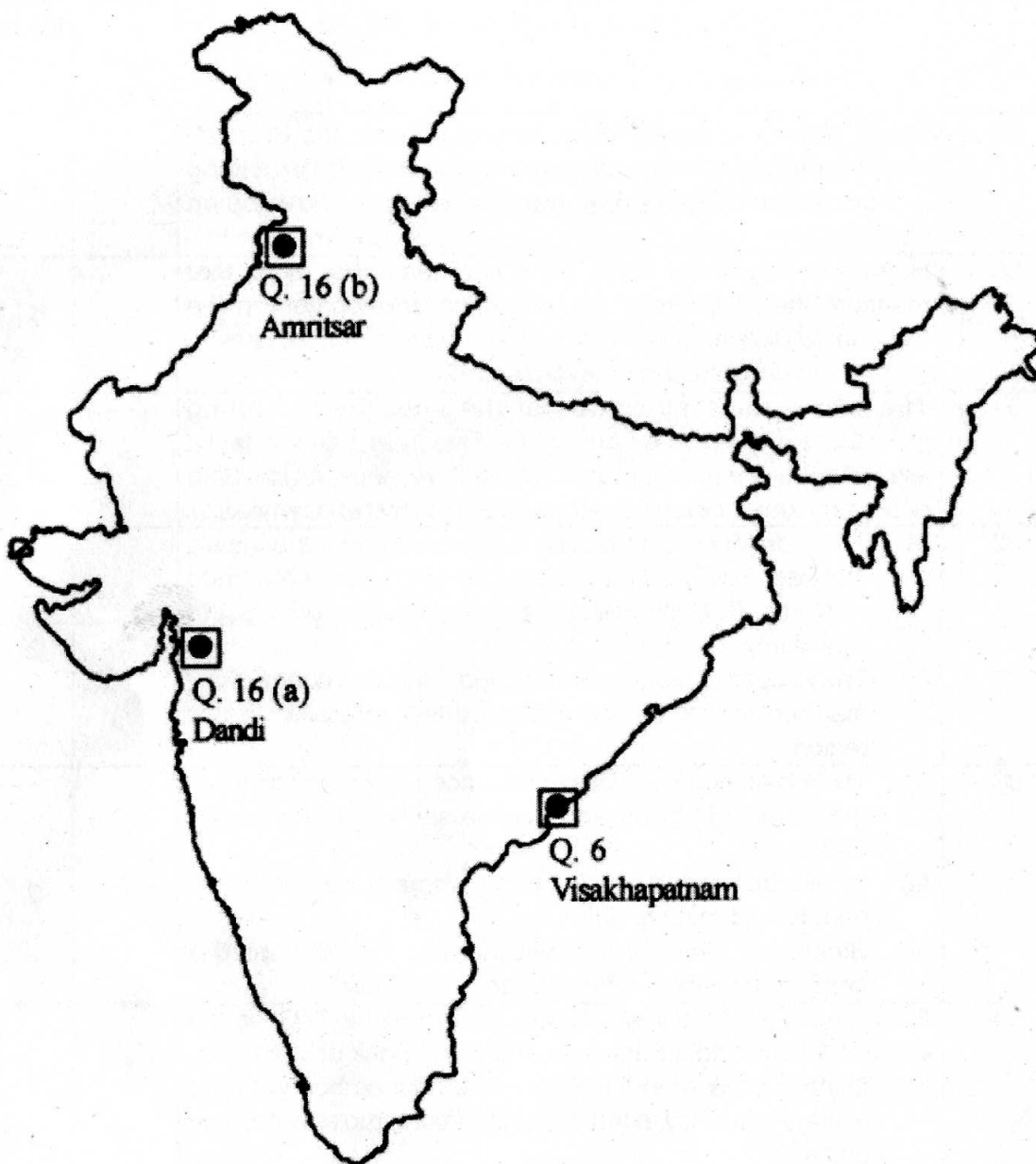
SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject: SOCIAL SCIENCE (ECONOMIC)

Q.No.	Key	Mark for each point	Total Marks
29	Gross National Income includes Gross Domestic Product, remittance and foreign assistance income for providing a more accurate economic picture of many developing countries.	1	1
30	Human Development Index (HDI) is a composite index that measure the progress of the economic development in the threebasic dimensions - a long and healthy life, access to knowledge and a decent standard of living.	1	1
31	The undesirable outcomes of the import substituting industrialization strategy during the Five Year Plans of India are failure to produce rapid growth, self- reliance, eradication of poverty and a perennial precarious balance of payments.	1	1
32	(i) The Indo Myanmar Boarder Agreement under the India's Act East Policy under scores the need to promote trade of North -Eastern States including Manipur with South East Asian Countries. (ii) The access to bigger markets and improved connectivity may turn out to be the missing driver of growth in this region.	1 1	2
33	(i) The Indian economy has experienced an improvement in the share of industry and service sectors in the overall GDP. (ii) In the beginning , it was the primary sector which contributed most to GDP. (iii) Since the 1980s the service sector has occupied a dominant position in the composition of GDP.	1 1 1	3
34	Reserve Bank of India which was established in 1935 is the Central Bank of India. Functions of Central Bank of India are: (i) Central Bank of India (RBI) is the sole authority for the issue of currency in India other than one rupee notes and coins. (ii) It acts as banker to the Government - both Central and State. (iii) It is banker's bank and their supervisor. (iv) It promotes commercial bank.	1 1 1 1	4

SOCIAL SCIENCE (GEOGRAPHY & HISTORY)

Q NO. 6 & 16



Total number of printed pages - 7

51 MB 21 HSc (N)

2019

HOME SCIENCE

Full Marks - 80

Pass Marks - 20

Time : Three hours

The figures in the right hand margin indicates full marks for the questions.

1. Which nutrients provide satiety value? 1

කුමාර කුමාරයා සඳහා ඔහුගේ පාඨශාලා ආහාරයේ සතුටුදායක දේවල් කුමක් ?

2. Define the term Resource. 1

සම්පත් සම්බන්ධ පදයක් අර්ථ දක්වන්න.

3. Why do we wear clothes ?

ඔබට ඇඳිය යුතු ඇඳුම් ඇයි ?

4. Cite the types of stock. 1

පොළවල ඇති ස්ථවරයන් කුමක් ?

5. When should you plan fluid diet ?

කුමාරයාගේ පාඨශාලා ආහාරයේ ඔහුගේ පාඨශාලා ආහාරයේ ?

Contd.

6. Children enjoy to recite rhyme with movement. 1

- A. Eye
- B. Hand
- C. Bodily
- D. Leg

පැමිණිලිකර පද්ධති පාඨයන් _____ ටායර් ගායනා ॥

- A. ඇස්
- B. අත්
- C. ශරීරය
- D. අඩි

7. Money used for buying different items and services for the family is known as _____. 1

- A. Real income
- B. Expenditure
- C. Family income
- D. Excess income

කුලයාගේ ගාස්තුවේ වෙනස් වන පහසුකම් සඳහා ජාතික ආර්ථිකයේ ගාස්තු _____
නමට දේ ॥

- A. පහසුකම් මුදා
- B. වැය
- C. කුලයාගේ මුදා
- D. අතිරේක මුදා

8. While drying, coloured garments should be turned inside _____ to retain colour. 1

A. Out
B. In
C. Back
D. Up

ਸਮੂਹ ਨੇ ਇਸ ਅੰਦਾਜ਼ੇ ਵਿੱਚ ਸਮੂਹ ਦੇ ਮੈਂਬਰਾਂ ਦੇ ਨਾਮਾਂ ਦੇ ਅਨੁਸਾਰ _____ ਪ੍ਰਾਪਤ ਕੀਤਾ।
 ਸਮੂਹ ਦੇ ਮੈਂਬਰਾਂ ॥

A. K_2CO_3
B. K_2SO_4
C. $\text{K}_2\text{S}_2\text{O}_8$
D. $\text{K}_2\text{S}_2\text{O}_3$

9. Play materials for 2 - 3 years of age is _____.

- A. Ladder
- B. Plastic block
- C. Wooden or Plastic Vehicle
- D. Magnet

ਸਰੀ ੬ - ਛਾਪਾ ਘੁਮਾਯਾ ਲੇਖਕਾਏ ੪ _____ ਪੰ ॥

A. කිව්වා
B. ගාල්ලේ ගියා හදවත
C. කෑන් ටැන්කා ගාල්ලේ ගියා කෑන් ටැන්කා
D. හදවත

- A. Limited
B. Average
C. Good
D. Maximum

A. $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$

B. $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$

C. $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$

D. $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$

- සදාස ලබාද ආර්ථික ශ්‍රේෂ්ඨ ප්‍රතිපත්තිමය ප්‍රතිපත්ති ප්‍රතිපත්ති ලබාදා ශ්‍රේෂ්ඨ ॥

- දුක ආත්මයාගේ මෙවැනි කතාව?

- [illegible]

14. Mention any four social qualities which are developed through games. 2

ලාභ-කේෂලතා ආදිය ලබාදීමේ මාර්ගයන් සඳහා ක්‍රීඩා කිරීමේදී සමාජ ගුණ 4ක් සඳහන් කරන්න.

15. Point out the differences between pamphlet and leaflet. 2

පත්‍රිකාවක් සහ පත්‍රිකාවක් අතර ඇති වෙනස්කම් සඳහන් කරන්න.

16. Draw a neat diagram of sleeve-board. 2

මැදිමිනිසුන් සඳහා වූ මිනිසුන්ගේ සේවයේ වෙනස්කම් සඳහන් කරන්න.

17. Write any three steps to be taken to minimize unpleasant emotions during childhood. 3

ප්‍රතිචාරයක් ලෙසින් වැඩිපුරම සිදුවන අප්‍රියමය අවස්ථා අවම කිරීමේදී ගත යුතු පියවර 3ක් සඳහන් කරන්න.

18. You want to iron a silk saree. Write the correct method of ironing it. 3

සැරියක් මැදිමිනිසුන්ගේ සේවයේ වෙනස්කම් සඳහන් කරන්න. 1. සැරියක් මැදිමිනිසුන්ගේ සේවයේ වෙනස්කම් සඳහන් කරන්න. 2. සැරියක් මැදිමිනිසුන්ගේ සේවයේ වෙනස්කම් සඳහන් කරන්න.

19. Differentiate between current account and fixed deposit account. 3

ප්‍රතිචාරයක් ලෙසින් වැඩිපුරම සිදුවන අප්‍රියමය අවස්ථා අවම කිරීමේදී ගත යුතු පියවර 3ක් සඳහන් කරන්න.

20. Point out the different aspects involved in food sanitation. 3

ප්‍රතිචාරයක් ලෙසින් වැඩිපුරම සිදුවන අප්‍රියමය අවස්ථා අවම කිරීමේදී ගත යුතු පියවර 3ක් සඳහන් කරන්න.

21. State any three demerits of home- made garments. 3

ගූසන ඒව්නේ දුරක කාමරය දුර්ව්‍යයෙකු වෙයි. 11

22. Draw a neat diagram of dry cleaning pump. 3

දුරු දමන පුම්පයේ සැලැස්ම අඳින්න. 11

23. List down the special precautions needed while removing stain on woolen fabric by using chemical reagents. 3

සුනාම් ඒව්නේ දුරු සැලැස්ම අඳින්න. ඒව්නේ දුරු සැලැස්ම අඳින්න. 11

24. How will you meet the food needs of adolescent boys and girls? 4

උදාහරණයක් ලෙසින් දුරු සැලැස්ම අඳින්න. 11

25. What problems consumers face while obtaining consumer information? 4

උදාහරණයක් ලෙසින් දුරු සැලැස්ම අඳින්න. 11

26. Suggest the different precautionary measures needed during storage of clothes. 4

උදාහරණයක් ලෙසින් දුරු සැලැස්ම අඳින්න. 11

27. Explain any four characteristics of children's play. 4

උදාහරණයක් ලෙසින් දුරු සැලැස්ම අඳින්න. 11

28. What is interest in early childhood ? Elaborate any three common interest during this period. 1+6=7

පැරණි ජීවිත කාලයේ අන්තර්ගතය කුමක් ? පැරණි කාලයේ අන්තර්ගතය පැහැදිලි කර දෙන්න.

29. Why do we need to plan meals ? Give any six reasons. 1+6=7

ආහාරය සැලසීමට අවශ්‍ය වන්නේ ? හේතු හයක් දෙන්න.

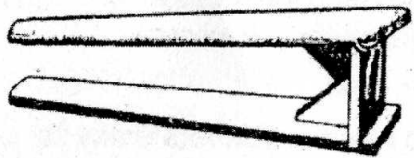
30. Analyse the general characteristics of resources. 7

සම්පත් සම්බන්ධ සාමාන්‍ය ලක්ෂණ පිළිබඳව විශ්ලේෂණය කර දෙන්න.

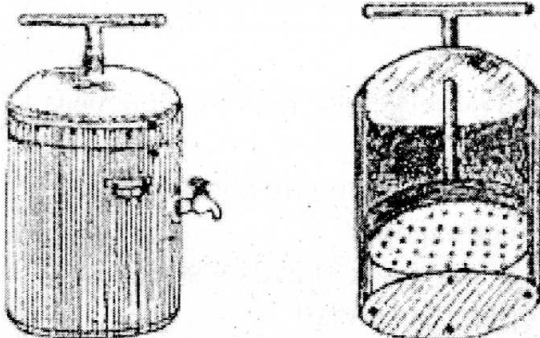
SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject : HOME SCIENCE

Q.No.	Key	Mark for each point	Total Marks
1	Fat, protein and fibre. (Any two points)	$\frac{1}{2}$ each	1
2	Resource is the means that help in fulfilling the needs and attaining the goals.	1	1
3	To protect from cold, heat and danger. (Any two points)	$\frac{1}{2}$ each	1
4	Common stock and preferred stock.	1	1
5	Digestive problems, swallowing difficulties, post operative cases, fever, when patient not able to eat solid food.	1	1
6	C. Bodily	1	1
7	B. Expenditure	1	1
8	A. Out	1	1
9	C. Wooden or Plastic vehicle	1	1
10	D. Maximum	1	1
11	Harmful effects :- 1. Terrifying programmes may affect psychological condition by causing nightmares, nervous, tension, loss of sleep, poor appetite. 2. Gets little or no exercise for normal healthy physical development.	1 each	2
12	Food guide :- Directs selection of food and quality consumed to provide R.D.A. (Recommended Dietary Allowance). Forms the foundation of adequate diet. Or Food and Nutrition education tools that help consumers select and eat food that provide them with adequate nutrition to maintain health.	2	2

13	Changes occurring to fruits and vegetables can be retarded by low temperature and cool dry place storage. Can be kept for longer period by keeping inside plastic bags and putting in the crisper of the refrigerator.	2	2
14	Social qualities :- i) Activeness, ii) Obedience, iii) Cheerfulness, iv) Politeness, v) Kindness, vi) Co-operation, vii) Honesty, viii) Loyalty, ix) Bravery. (Any four points)	$\frac{1}{2}$ each	2
15	Pamphlet :- Contains many pages, treats a number of topics or steps in a given problem Leaflet :- Single sheet of paper folded to make a four page piece of printed matter, may print on one side or both sides. It gives accurate and specific instruction about the functioning of the product.	1 each	2
16	DIAGRAM  Sleeve Board	2	2
17	Steps should be taken to reduce unpleasant emotions to a minimum by preventing :- i) Fear, ii) Anger, iii) Jealousy whenever possible. Elaboration on these three emotions.	1 each	3
18	Method of ironing silk saree :- i) Ironing when the fabric is evenly damp. ii) No sprinkling of water as it leaves water marks. iii) If dry, wrapping in damp towel before ironing. iv) Avoiding excessive heat by testing.	$\frac{1}{2}$ each	3

	v) Ironing white silk on the right side for gloss. Dark colour should be ironed on the wrong side. vi) Should iron till dry or else creases will reappear on the dampened portion. vii) Tussor and eri silk should be ironed on right or wrong side according to their colour and surface finish. viii) Cultivated silk should be ironed when evening damp to get uniform and smooth finish. (Any six points)		
19	Current account :- Higher minimum balance, unlimited withdrawals by cheque, Lower interest. Fixed deposit account:- Fixed period. Higher interest than current account. Cannot withdraw money before stated period.	1 ½ each	3
20	Aspects of food sanitation:- i) Maintenance of clean premises. ii) Health and cleanliness of people who handle food. iii) Provision of potable water supply. iv) Cleanliness in handling and storage of raw materials. V) Prevention of contaminating the foods at all stages of preparation either equipment or personnel. vi) Cleanliness in serving food. vii) Safe disposal of food wastes. (Elaborate any six points)	½ each	3
21	Demerits:- i) Requires more time, adequate equipment and space, need more energy. ii) Needs to know the techniques involved in sewing. iii) Should possess proper skill in choosing design and construction, otherwise looks unfinished when compared with readymade garment. iv) Finish less appealing, completed garment may be disappointing. v) Needs special equipment for special finishes. (Any three points)	1 each	3

22	<p>DIAGRAM</p>  <p>DRY CLEANING PUMP</p>	3	3
23	<p>Special precaution:-</p> <ul style="list-style-type: none"> i) Chemical reagents used should be in dilute form. Several applications of dilute solution less harmful than single application of undiluted reagent. ii) If bleaching required, then only hydrogen peroxide in dilute solution. iii) Must rinse in cold water several times after treatment. 	1 each	3
24	<p>Food needs:-</p> <ul style="list-style-type: none"> i) Amount of foods listed in the food guide for Indians should be included in the diet. ii) Boys need to consume more energy rich foods to provide sufficient energy. iii) Girls need foods rich in protein, iron and other nutrients necessary for synthesis and regeneration of red blood cells. iv) Any deviation in their weight for the weight and body build should be identified and corrected. 	1 each	4
25	<p>Problems:-</p> <ul style="list-style-type: none"> i) Sometimes information not available, pamphlet needed is out of print. ii) Printed information provided is in a language not understood by the consumer. iii) Some leaflets and forms are written with difficult words and in a style not understood by the consumer. 	1 each	4

	iv) Consumer not careful in keeping important document, such as, guarantee, service instruction etc. Hence information not available when needed.		
26	<p>Precautionary measures:-</p> <ul style="list-style-type: none"> i) Repellents like dried neem leaves, naphthalene balls, odonil etc can be used. ii) To protect woolen clothes from moth's attack wrapping woolen clothes with newspaper. iii) As some clothes can be crack at folds if stored for a long time changing folds is needed. iv) Starched clothing should not be stored for long. v) Soiled clothed should not be stored as stains become permanent and easily attacked by moths, insects, mildew. vi) Should not store in damp condition. vii) Cupboard or storage box should be lined with newspaper or old clean cloth. viii) Storage should be done in dry condition. 	$\frac{1}{2}$ each	4
27	<p>Characteristics:-</p> <ul style="list-style-type: none"> i) Play follows a pattern of development. ii) Play influenced by tradition. iii) Childhood play changes from informal to formal. iv) Play activities decrease with age. v) Time spent in play decreases with age. vi) Time spent with specific activities increase with age. vii) Play is less physically active as child grows older viii) The number of playmates decreases with age. 	1 each	4
28	<p>Interest:-</p> <p>It is the feeling that the child has when he wants to know or learn about something.</p> <p>Three common interest:-</p> <ul style="list-style-type: none"> i) Interest in religion. ii) Interest in the human body. iii) Interest in self. iv) Interest in clothes. (Elaborate on any three points). 	1+6	7

29	<p>Meal planning :-</p> <p>To provide nutritionally adequate and likeable food on time.</p> <p>Reasons:-</p> <ul style="list-style-type: none"> i) Balanced for all members of the family. ii) Saves time, money and energy. iii) Saves fuel. iv) Variety in meals. v) Control on food budget. vi) Tasty and attractive food. vii) Use of leftovers. viii) Personal likes and dislikes. ix) The day as a unit. (Elaborate on any six points) 	1+6	7
30	<p>General characteristics:-</p> <ul style="list-style-type: none"> i) Availability of resources to different families varies. ii) A family may have skills and money whereas another family may have only money and no skills. iii) All resources are useful but a particular resource which is useful to one person may not be useful for another. iv) Resources can be replace each other. Time can replace money or vice versa. Eg.- Can buy ready made food instead of cooking to save time and energy. v) All resources are limited. vi) Resources are seldom used singly. Eg.- Money alone not enough to buy a household item. Knowledge about the product, skill/ability to select, time, energy etc. are equally important in buying an item. vii) Resources can be saved by proper planning. Eg.- Proper planning in the kitchen saves time and energy while cooking. viii) Resources of a family can be increased. Eg.- a portion of the house can be given on rent to get extra money. (Any seven points) 	1 each	7

Total number of printed pages - 4

51 M B 24 Hm (N)

2019
HIGHER MATHEMATICS

*Full Marks - 80**Pass Marks - 20**Time : Three hours**Attempt all questions.**The figures in the right hand margin indicate full marks for the questions.**For Question Nos. 1 to 5, write the letter corresponding to the correct answer.*

1. If $*$ is a binary operation on z defined by $x * y = x - y$, for all $x, y \in z$, then the value of $(7 * 5) * 2$ is - 1
(A) -1
(B) 0
(C) 1
(D) 2
2. If n is a positive integer, then the number of terms in the expansion of $(x + a)^n$ is - 1
(A) $n - 1$
(B) n
(C) $n + 1$
(D) $n + 2$
3. If $A = (a_{ij})_{m \times n}$ and $B = (b_{jk})_{n \times p}$, then the order of AB is - 1
(A) $m \times n$
(B) $n \times p$
(C) $p \times m$
(D) $m \times p$

Contd.

4. The value of the expression $\sin 135^\circ \operatorname{cosec} 225^\circ \cot 315^\circ$ is - 1
(A) 1
(B) 0
(C) -1
(D) $\frac{1}{\sqrt{2}}$
5. Two equal forces acting at point so that their resultant is equal to either of them in magnitude, then the angle between them is - 1
(A) 45°
(B) 60°
(C) 90°
(D) 120°
6. State principle of mathematical induction. 1
7. Write the middle terms in the expansion of $(a + x)^n$. 1
8. Find the constant term in the expansion of $\left(x - \frac{1}{x}\right)^4$ 1
9. Give an example of row matrix which is also a column matrix. 1
10. Define a recurring expression. 1
11. Is $x + 1$ a factor of $x^3 + 6x^2 + 11x + 6$? 1
12. What is meant by a trigonometric equation? 1
13. Find the resolved part of force equal to 80 kg in a direction making an angle $\tan^{-1}(3/4)$ with its direction. 1
14. A binary operation $*$ on N is defined by $a*b = LCM$ of a, b . Construct a composition table for the set $S = \{1, 2, 3, 4, 5\}$ with respect to $*$. 2
15. Find the 5th term in the expansion of $\left(2x + \frac{1}{x^2}\right)^7$ 2

16. Find a 2×3 matrix $[a_{ij}]$ where $a_{ij} = \left(\frac{i-2j}{2}\right)^2$. 2
17. If $a + b + c = 0$, prove that $a^2 + b^2 + c^2 = -2(ab + bc + ca)$. 2
18. If A, B, C, D are angles of a quadrilateral then show that
 $\cos \frac{1}{2}(A + C) + \cos \frac{1}{2}(B + D) = 0$. 2
19. Define a geometric progression. Prove that the n^{th} term of a G.P. is $a_n = ar^{n-1}$ where the symbols have usual meanings. 3
20. If a^2, b^2, c^2 are in A.P. prove that $b + c, c + a, a + b$ are in H.P. 3
21. If c_r denotes the binomial Co-efficient nC_r prove that $C_0 + 3C_1 + 5C_2 + \dots + (2n+1)c_n = (n+1)2^n$. 3
22. If $A = \begin{bmatrix} 3 \\ 5 \\ 2 \end{bmatrix}$ and $B = [1 \ 0 \ 4]$ prove that $(AB)' = B' A'$. 3
23. Find the value of $x^4 - x^3 + x^2 + 2$, when $x^2 + 2 = 2x$. 3
24. Solve for θ : $\cos^2 \theta - \sin \theta = \frac{1}{4}$ when $0 \leq \theta \leq 2\pi$. 3
25. Let (S, o) be an algebraic structure with identity, in which o is associative. If x and y are two invertible elements of S , then prove that $x o y$ is also invertible and $(x o y)^{-1} = y^{-1} o x^{-1}$. 4
26. Prove by using the principle of mathematical induction that $\forall n \in \mathbb{N}$
 $\frac{1}{1.3} + \frac{1}{1.5} + \frac{1}{5.7} + \dots + \frac{1}{(2n-1)(2n+1)} = \frac{n}{2n+1}$ 4

Or

 $a^{2n} - b^{2n}$ is divisible by $a + b$

27. Find the magnitude and direction of the resultant of a number of coplanar forces acting at a point. Hence deduce the condition for equilibrium of concurrent and coplanar forces. 4

28. If $A = \begin{bmatrix} 1 & -1 & 1 \\ 2 & 3 & 0 \\ 3 & 2 & -1 \end{bmatrix}$ $B = \begin{bmatrix} 1 & 4 \\ 0 & 2 \\ -1 & 1 \end{bmatrix}$ $C = \begin{bmatrix} 3 & 1 \\ -2 & 4 \end{bmatrix}$

Prove that $(ABC = A(BC))$

Or

If $A = \begin{bmatrix} 0 & 0 \\ 1 & 0 \end{bmatrix}$ show that

Where I is the 2×2 unit matrix. 5

29. If $x + y + z = a$, $xy + yz + zx = b$
and $xyz = c$ prove that

$$a^3 - 3ab + 3c = x^3 + y^3 + z^3 \quad 5$$

30. Find the trigonometric ratios of $(90^\circ + \theta)$ in terms of those of ' θ '. 5

31. A circle is completely divided into n sectors in such a way that the angles of the sectors are in arithmetic progression. If the smallest angle is 8° and the largest 72° , find n and angle in the fourth sector.

Or

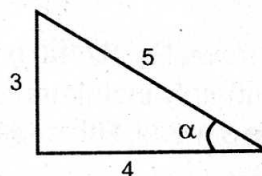
A person borrows Rs. 32760 from a friend without interest and agrees to pay back in 12 monthly instalments, each instalment being twice the preceding one. Find the second, fifth and the last instalments. 6

32. Two forces P and Q acting at a point have a resultant R . If P is doubled, R is doubled and if Q is doubled and P is reversed in direction, even then R is doubled, Show that $P : Q : R = \sqrt{6} : \sqrt{2} : \sqrt{5}$ 6

SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject: HIGHER MATHEMATICS

Q.No.	Key	Mark for each point	Total Marks																																				
1	B	1	1																																				
2	C	1	1																																				
3	D	1	1																																				
4	A	1	1																																				
5	D	1	1																																				
6	Book definition	1	1																																				
7	Book definition	1	1																																				
8	$T_{r+1}=(-1)^r{}^4C_4x^{4-r}\left(\frac{1}{x}\right)^r$ <p>Then, $4-2r=0\Rightarrow r=2$</p> <p>\therefore The constant term = ${}^4C_2=6$</p>	1	1																																				
9	[2]	1	1																																				
10	Book Definition	1	1																																				
11	Yes	1	1																																				
12	Book Definition	1	1																																				
13	Given force = 80 Kg	1	1																																				
	Here, $\alpha = \tan^{-1}\left(\frac{3}{4}\right)$																																						
	$\Rightarrow \cos\alpha = \frac{4}{5}$																																						
	Required resolved part = $80\times\frac{4}{5}=64\text{Kg}$																																						
14	Composition table	2	2																																				
	<table><tr><td>*</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>1</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td></tr><tr><td>2</td><td>2</td><td>2</td><td>6</td><td>4</td><td>10</td></tr><tr><td>3</td><td>3</td><td>6</td><td>3</td><td>12</td><td>15</td></tr><tr><td>4</td><td>4</td><td>4</td><td>12</td><td>4</td><td>20</td></tr><tr><td>5</td><td>5</td><td>10</td><td>15</td><td>20</td><td>5</td></tr></table>	*	1	2	3	4	5	1	1	2	3	4	5	2	2	2	6	4	10	3	3	6	3	12	15	4	4	4	12	4	20	5	5	10	15	20	5		
*	1	2	3	4	5																																		
1	1	2	3	4	5																																		
2	2	2	6	4	10																																		
3	3	6	3	12	15																																		
4	4	4	12	4	20																																		
5	5	10	15	20	5																																		



15	<p>Here, 5th term in the expansion of $\left(2x + \frac{1}{x^2}\right)^7$</p> $= {}^7C_4 (2x)^{7-4} \left(\frac{1}{x^2}\right)^4$ $= {}^7C_4 2^3 x^3 \cdot \frac{1}{x^8}$ $= 280 \frac{1}{x^5}$	1	
16	<p>Given, $a_{ij} = \frac{(i-2j)^2}{2}$</p> <p>Then, $a_{11} = \frac{1}{2}$, $a_{12} = \frac{9}{2}$, $a_{13} = \frac{25}{2}$</p> <p>$a_{21} = 0$, $a_{22} = 2$, $a_{23} = 8$</p> <p>The required matrix = $\begin{bmatrix} \frac{1}{2} & \frac{9}{2} & \frac{25}{2} \\ 0 & 2 & 8 \end{bmatrix}$</p>	1	2
17	Book result	1 + 1	2
18	<p>Since, A, B, C, D are in the angles of a quadrilateral,</p> <p>Then $A + B + C + D = 180$</p> $= \cos \frac{1}{2}(A+C) + \cos \frac{1}{2}(B+D)$ $= \cos \frac{1}{2}(A+C) + \cos \frac{1}{2}\{360^\circ - (A+C)\}$ $= \cos \frac{1}{2}(A+C) + \cos\left(180^\circ - \frac{A+C}{2}\right)$ $= \cos \frac{1}{2}(A+C) - \cos \frac{1}{2}(A+C)$ $= 0$	1	2
19	Book result 3	3	
20	<p>Since, a^2, b^2, c^2 are in H.P.</p> <p>Then $b^2 - a^2 = c^2 - b^2$</p> $\Rightarrow \frac{b-a}{b+c} = \frac{c-b}{a+b}$ $\Rightarrow \frac{(b+c)-(c+a)}{(b+c)(c+a)} = \frac{(c+a)-(a+b)}{(c+a)(a+b)}$	1	

[illegible]

	<p>Then,</p> $B'A' = \begin{bmatrix} 1 \\ 0 \\ 4 \end{bmatrix} \begin{bmatrix} 3 & 5 & 2 \end{bmatrix}$ $= \begin{bmatrix} 3 & 5 & 2 \\ 0 & 0 & 0 \\ 12 & 20 & 8 \end{bmatrix}$ <p>$\therefore (AB)' = B'A'$</p>		
23	<p>Given that,</p> $x^2 + 2 = 2x$ $\Rightarrow x^2 = 2x - 2 \dots\dots\dots (i)$ <p>We have,</p> $x^4 - x^3 + x^2 + 2$ $= (x^2)^2 - x \cdot x^2 + x^2 + 2$ $= (2x - 2)^2 - x(2x - 2) + 2x - 2 + 2 \text{ (by (i))}$ $= 4x^2 - 8x + 4 - 2x^2 + 2x + 2x$ $= 2x^2 + 4 - 4x$ $= 2(2x - 2) + 4 - 4x$ $= 4x - 4 + 4 - 4x$ $= 0$	1	
24	<p>We have,</p> $\cos^2 \theta - \sin \theta = \frac{1}{4}$ $\Rightarrow 1 - \sin^2 \theta - \sin \theta = \frac{1}{4}$ $\Rightarrow 4\sin^2 \theta + 4\sin \theta - 3 = 0$ $\Rightarrow (2\sin \theta + 3)(2\sin \theta - 1) = 0$ <p>Either $\sin \theta = -\frac{3}{2}$ which is impossible</p> <p>Or, $\sin \theta = \frac{1}{2} \Rightarrow \theta = \frac{\pi}{6}$</p> <p>Again, $\sin \theta = \sin \frac{\pi}{6} = \sin \left(\pi - \frac{\pi}{6} \right)$</p>	1	3

	$\therefore \theta = \frac{5\pi}{6}$		
25	Hence, $\theta = \frac{\pi}{6}, \frac{5\pi}{6}$	1	
26	Book result	1+1+1+1	4
	Let P(n) be the given statement.		
	Then,		
	$P(n): \frac{1}{1.3} + \frac{1}{3.5} + \frac{1}{5.7} + \dots + \frac{1}{(2n-1)(2n+1)} = \frac{n}{2n+1}$	1	
	For n = 1, We have		
	$\text{LHS} = \frac{1}{1.3} = \frac{1}{3} \quad \text{RHS} = \frac{1}{2+1} = \frac{1}{3}$		
	$\therefore \text{LHS} = \text{RHS}$ is true.		
	Let us assume that P(n) is true for n = k, then we have		
	$P(k): \frac{1}{1.3} + \frac{1}{3.5} + \frac{1}{5.7} + \dots + \frac{1}{(2k-1)(2k+1)} = \frac{k}{2k+1} \dots (i)$		
	Let us prove that statement for n - k + 1 we have to show		
	$\frac{1}{1.3} + \frac{1}{3.5} + \frac{1}{5.7} + \dots + \frac{1}{(2k-1)(2k+1)} + \frac{1}{[2(k+1)-1][2(k+1)+1]} = \frac{k+1}{2(k+1)+1}$	1	
	$\text{LHS} = \frac{1}{1.3} + \frac{1}{3.5} + \frac{1}{5.7} + \dots + \frac{1}{(2k-1)(2k+1)} + \frac{1}{[2(k+1)-1][2(k+1)+1]}$		4
	$= \frac{k}{2k+1} + \frac{1}{[2k+2-1][2k+2+1]} \dots \text{by (i)}$	1	
	$= \frac{k}{2k+1} + \frac{1}{(2k+1)(2k+3)}$		
	$= \frac{1}{2k+1} \left(k + \frac{1}{2k+3} \right)$		
	$= \frac{1}{2k+1} \times \frac{k(2k+3)+1}{2k+3}$		
	$= \frac{1}{2k+1} \times \frac{(2k+1)(k+1)}{2k+3}$	1	
	$= \frac{k+1}{2(k+1)+1}$		
	= RHS		

Then,

$$AB = \begin{bmatrix} 1 & -1 & 1 \\ 2 & 3 & 0 \\ 3 & 2 & -1 \end{bmatrix} \begin{bmatrix} 1 & 4 \\ 0 & 2 \\ -1 & 1 \end{bmatrix} = \begin{bmatrix} 0 & 3 \\ 2 & 14 \\ 4 & 15 \end{bmatrix}$$

$$(AB)C = \begin{bmatrix} 0 & 3 \\ 2 & 14 \\ 4 & 15 \end{bmatrix} \begin{bmatrix} 3 & 1 \\ -2 & 4 \end{bmatrix} = \begin{bmatrix} -6 & 12 \\ -22 & 58 \\ -18 & 64 \end{bmatrix}$$

And,

$$BC = \begin{bmatrix} 1 & 4 \\ 0 & 2 \\ -1 & 1 \end{bmatrix} \begin{bmatrix} 3 & 1 \\ -2 & 4 \end{bmatrix} = \begin{bmatrix} -5 & 17 \\ -4 & 8 \\ -5 & 3 \end{bmatrix}$$

$$A(BC) = \begin{bmatrix} 1 & -1 & 1 \\ 2 & 3 & 0 \\ 3 & 2 & -1 \end{bmatrix} \begin{bmatrix} -5 & 17 \\ -4 & 8 \\ -5 & 3 \end{bmatrix} = \begin{bmatrix} -6 & 12 \\ -22 & 58 \\ -18 & 64 \end{bmatrix}$$

$$\therefore (AB)C = A(BC)$$

Or,

Given,

$$A = \begin{bmatrix} 0 & 0 \\ 1 & 0 \end{bmatrix} \quad I = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}$$

Now,

$$aI + bA = a \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} + b \begin{bmatrix} 0 & 0 \\ 1 & 0 \end{bmatrix} = \begin{bmatrix} a & 0 \\ b & a \end{bmatrix}$$

And,

$$(aI + bA)^2 = \begin{bmatrix} a & 0 \\ b & a \end{bmatrix} \begin{bmatrix} a & 0 \\ b & a \end{bmatrix} = \begin{bmatrix} a^2 & 0 \\ 2ab & a^2 \end{bmatrix}$$

$$\text{LHS} = (aI + bA)^3 = \begin{bmatrix} a^2 & 0 \\ 2ab & a^2 \end{bmatrix} \begin{bmatrix} a & 0 \\ b & a \end{bmatrix} = \begin{bmatrix} a^3 & 0 \\ 3a^2b & a^3 \end{bmatrix}$$

$$\text{RHS} = a^3I + 3a^2bA = a^3 \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} + 3a^2b \begin{bmatrix} 0 & 0 \\ 1 & 0 \end{bmatrix} = \begin{bmatrix} a^3 & 0 \\ 3a^2b & a^3 \end{bmatrix}$$

$$\therefore (aI + bA)^3 = a^3I + 3a^2bA$$

29	<p>Given that, $x + y + z = a$, $xy + yz + zx = b$, $xyz = c$</p> <p>Now,</p> <p>LHS $= a^3 - 3ab + 3c$</p> $= (x + y + z)^3 - 3(x + y + z)(xy + yz + zx) + 3xyz$ $= (x + y + z)^3 - 3\{[(x + y) + z]x\{xy + z(x + y)\}\} + 3xyz$ $= (x + y + z)^3 - 3[xy(x + y) + z(x + y)^2 + xyz + z^2(x + y) - xyz]$ $= (x + y + z)^3 - 3(x + y)(xy + zx + yz + z^2)$ $= (x + y + z)^3 - 3(x + y)[x(y + z) + z(y + z)]$ $= (x + y + z)^3 - 3(x + y)(y + z)(z + x)$ $= x^3 + y^3 + z^3$ <p>= RHS</p>	1 1 1 1 1 1	5
30	Book result	1+1+1 +1+1	5
31	<p>Let $a, a + d, a + 2d, \dots, a + (n - 1)d$ be the n angles of the sectors.</p> <p>By question, we have</p> <p>$a = 8^\circ$(i)</p> <p>$a + (n - 1)d = 72^\circ$(ii)</p> <p>By (i) and (ii) we get</p> <p>$(n - 1)d = 64^\circ$(iii)</p> <p>Also,</p> $\frac{n}{2} \{2a + (n - 1)d\} = 360^\circ$ $\Rightarrow \frac{1}{2} \{2 \times 8^\circ + 64^\circ\} = 360^\circ$ $40n = 360^\circ$ $\therefore n = 9^\circ$ <p>And putting the value of n in (iii), we get</p> $8d = 64^\circ \Rightarrow d = 8^\circ$ <p>The regd. angle in the fourth sector i.e. $8 + (4 - 1)8 = 32^\circ$</p> <p>Or</p>	1 1 1 1	6

32	<p>Since each installment is twice the preceding one, the installments are in G.P. with common ratio 2.</p> <p>Let a be the first installment.</p> <p>Here, $a = ?$, $r = 2$, $n = 12$, $S_{12} = 32760$ we know that</p> $S_n = \frac{a(r^n - 1)}{r - 1}$ $S_{12} = \frac{a(2^{12} - 1)}{2 - 1}$ $\Rightarrow 32760 = a \times 4095$ $\Rightarrow a = 8$ <p>And, 2nd instalment $= ar = 8 \times 2 = \text{Rs. } 16$</p> <p>And 5th installment $= 8 \times 2^{5-1} = 8 \times 16 = \text{Rs } 128$</p> <p>And last installment $= 8 \times 2^{11} = \text{Rs } 16384$</p> <p>Let α be the angle between the forces P and Q</p> <p>Then, $R^2 = P^2 + Q^2 + 2PQ \cos \alpha$ (i)</p> <p>When P changes to $2P$, R change to $2R$.</p> $\Rightarrow (2R)^2 = (2P)^2 + Q^2 + 2.2PQ \cos \alpha$ $\Rightarrow 4R^2 = 4P^2 + Q^2 + 4PQ \cos \alpha$(ii) <p>When P is reversed and Q changes to $2Q$, R changes to $2R$</p> $\Rightarrow (2R)^2 = (-P)^2 + (2Q)^2 + 2(-P)2Q \cos \alpha$ $\Rightarrow 4R^2 = P^2 + 4Q^2 - 4PQ \cos \alpha$(iii) <p>Adding (ii) and (iii) we have</p> $8R^2 = 5P^2 + 5Q^2$ $\Rightarrow 5P^2 + 5Q^2 - 8R^2 = 0$(iv) <p>Multiplying (i) by (ii) and adding to (iii) we have</p> $6R^2 = 3P^2 + 6Q^2$ $\Rightarrow P^2 + 2Q^2 - 2R^2 = 0$(v) <p>From (iv) and (v), taking by corss multiplication, we have</p> $\frac{P^2}{-10+16} = \frac{Q^2}{-8+10} = \frac{R^2}{10-5}$ $\Rightarrow \frac{P^2}{6} = \frac{Q^2}{2} = \frac{R^2}{5} \quad \therefore P : Q : R = \sqrt{6} : \sqrt{2} : \sqrt{5}$	<p>1</p> <p>1</p> <p>6</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>6</p> <p>6</p>
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Total number of printed pages - 7

51 M B 23 Csc (N)

2019

COMPUTER SCIENCE

Full Marks - 80

Pass Marks - 20

Time: Three hours

Answer all the questions.

The figures in the right hand margin indicate full marks for the questions.

- | | | |
|----|---|---|
| 1. | What is MS-Access ? | 1 |
| 2. | Give an example of a primary key. | 1 |
| 3. | Name a site that provides E-commerce facility. | 1 |
| 4. | Name the header file for the functions scanf() and printf() in C. | 1 |
| 5. | What is a pointer ? | 1 |
| 6. | What is a bookmark ? | 1 |
| 7. | What are AutoNumber and Yes/No data types ? | 2 |
| 8. | State two advantages of using DBMS. | 2 |

Contd.

9. What are modulation and demodulation ? 2
10. List two attributes of tag. 2
11. Explain NAME attribute of Anchor tag. 2
12. Write the full form of HTTP and FTP. 2
13. Define a structure that can store the name, roll no., and age of a student. 2
14. (a) What is Internet ? 1
- (b) How did Internet come into existence? 2
15. (a) What are web browsers and where was the first web browser developed ? 2
- (b) State the role of Refresh in a web browser. 1
16. How does a search engine find information on any specific topic ? 3
17. Explain LINK, ALINK, and VLINK attributes of the BODY tag. 3
18. Rewrite the following program segment using do-while loop. 3

```
int i, n, sum=0;
scanf("%d",&n);
for(i=1; i<=n; i++)
{
    sum+=pow(2, i);
    if(sum > 100)
        break;
}
printf("\nSum = %d", sum);
```

19. (a) What are the advantages of E-mail ? 3
(b) Name any two sites that provide E-mail services. 1
20. (a) What are ordered list and unordered list tags of HTML ? 3
(b) What is the use of TYPE attribute of an unordered list ?
21. (a) What is ALT attribute of IMG tag ? 1
(b) What are the attributes of <HR> element ? 3
22. Complete the following program to calculate the average of n numbers. 4

```
#include<stdio.h>
```

```
void main()
```

```
{
```

```
    int n, count;
```

```
    float x, average, sum=0 ;
```

```
    printf("How many numbers?")
```

```
    scanf(_____);
```

```
    for( count=1; _____)
```

```
    {
```

```
        printf("\nx = "
```

```
        scanf( _____);
```

```
        sum = _____;
```

```
    }
```

```
    average = _____;
```

```
    printf( _____ );
```

23. (a) What are break and continue statements ? 2
- (b) What will be the output of the following program? 2
- ```
#include<stdio.h>

void main()

{

int n, *p;

p=&n;

n=10;

printf("%d, %d",p,*p);

}
```
24. (a) Differentiate between container and empty elements of HTML? 2
- (b) Correct the following HTML code: 3
- ```
<HTML>

<BODY NOSHADE>

<HR SIZE = "5" THICKNESS = "50%"

THIS IS TO TEST KNOWLEDGE

</H1>

</HTML>

</BODY>
```

25. (a) Study the following C program : 2

```
#include<stdio.h>
```

```
Void main( )
```

```
{
```

```
int sum= , count= -1;
```

```
do {
```

```
count- -;
```

```
sum=3*sum;
```

```
}while(count>1);
```

```
}
```

What will be the value of the variables sum and count after the execution of above program ?

- (b) Define a functionn that accepts two integers as arguments and returns their product. 3

26. Write HTML code to generate a web page in the format shown below : 5

Planets of the Solar System

- a. Mercury
- b. Venus
- c. Earth
- d. Mars
- e. Jupiter
- f. Saturn
- g. Uranus
- h. Neptune
- i. Pluto

[To know about Sun Click Here](#)

Special Notes

- (a) Title of the page should be 'Universe'.
- (b) Background colour of the page should be 'Yellow'.
- (c) Font face in the page should be 'ARIAL'.
- (d) Text colour of the main heading should be 'BLUE'.
- (e) Link colour should be 'GREEN', Visited Link colour should be 'RED', and Active Link colour should be 'BLUE'.

(f) Page linked with

Mercury as 'mercury.htm'

Venus as 'venus.htm'

Earth as 'earth.htm'

Mars as 'mars.htm'

Jupiter as 'jupiter.htm'

Saturn as 'saturn.htm'

Neptune as 'neptune.htm'

Pluto as 'pluto.htm'

Click Here as 'sun.htm'

(g) Bottom message should be center aligned and with font size '4'.

27. Write a C program to reverse a given string without using the library function `strrev()`. 5

28. Write a C program to find the sum of two matrices. 5

SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject : COMPUTER SCIENCE

Q.No.	Key	Mark for each point	Total Marks
1	Database Management System (DBMS)	1	1
2	Example : Rollno is the primary key for the students of a particular class.	1	1
3	Example: www.amazon.com	1	1
4	stdio.h	1	1
5	Pointer is a variable that refers or points to another variable.	1	1
6	A Bookmark is a link to a web page so that we can have a quick and easy access to it later.	1	1
7	Auto Number data type: It stores an integer that is incremented or decremented automatically as you add or delete records. Yes/No data type: It is known as 'logical type data that can have only one of the two values, i.e., True or False.	1 1	2
8	Example : (any two points from the six points given in the text book.) Databases reduce the data redundancy to a larger extent. Databases facilitate sharing of data.	1 1	2
9	Modulation: The process of converting a digital signal to analog signal. Demodulation: The process of converting an analog signal to digital signal.	1 1	2
10	Any two from : SIZE, COLOR, FACE	2	2
11	The NAME attribute allows the anchor to be the target of a link. This attribute can be used when a link has to be created to a certain text on the same page or the text needs to	1 1	2

	be referred to by another document. The value of the NAME attribute is an identifier for the anchor and this must be unique.		
12	HTTP: Hypertext Transfer Protocol. FTP: File Transfer Protocol.	1 1	2
13	struct Student { char name[30]; int rollno, age; };	1 1	2
14	Internet is an interconnection between several computers of different types belonging to various networks all over the world. In 1969, the Department of Defence (DoD) of United States of America started a network called ARPANET. It was started with one computer in California and three in Utah. Later, the military allowed Universities to join the network for sharing the hardware and software resources. Then it grew bigger and gave birth to the present-day very popular Internet.	1 2	3
15	Web Browsers are software packages that display web pages containing text, graphics, audio and video files, and links to various other web pages. The first Web Browser was developed by the National Centre for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign. Refresh: Reloads the page from the web server.	1 1 1	3
16	Search engines broadly consist of three components: the crawler, the index, the search algorithm. Crawlers, also called spiders, are programs that automatically scan web sites and create indexes of URLs, keywords, and links. How web sites (or pages) are selected depends on how the crawler is set up.	1 1 1	3

	When a user submits a search query, a software working on the engine's algorithm goes through the index to find web pages with keyword matches and ranks the pages in terms of relevance.		
17	<p>LINK defines the colour of the unvisited links in a document. The default colour of LINK attribute is Blue.</p> <p>ALINK defines the colour of the link as it is being clicked. The default colour of this attribute is Red.</p> <p>VLINK defines the colour of a link after it has been visited. The default colour of this attribute is purple.</p>	<p>1</p> <p>1</p> <p>1</p>	3
18	<pre>int i, n, sum = 0; scanf("%d", &n); i=1; do { sum+=pow(2, i); i++; if(sum > 100) break ;}while(i<=n); printf("\nSum = %d", sum);</pre>	<p>1</p> <p>2</p>	3
19	<p>Advantages :</p> <p>Speed - an e-mail is a far quicker means of correspondence than ordinary postage. A message can reach any part of the world in a fraction of a second.</p> <p>Content -the message may consist of only a few lines of text or of several hundred lines. Unlike the postal service, the message is not charged at all. Receiving Messages - we need not be at our computer all the time to receive a message. The message is stored by our service provider. It will deliver the message to us, when we ask for it.</p> <p>http://www.hotmail.com</p> <p>http://www.rediff.com</p> <p>(or any two website providing e-mail services)</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	4

20	An ordered list defines a list in which order is taken into account and is enclosed by and . Ordering is rendered by a numbering scheme, using Arabic numbers, letters, or Roman numbers	1.5	4
	An unordered list is used for lists of items in which the ordering is not specific and is enclosed by and . The list items are defined by using the list item element .	1.5	
	TYPE attribute specifies the type of bullet that will be used for each list item.	1	
21	ALT - This attribute is used to give alternate text that will be displayed in place of the image.	1	4
	The attributes of <HR> element: SIZE, WIDTH,	1	
	ALIGN, COLOR, NOSHADE	1 1	
22	<pre>#include<stdio.h> void main() { int n, count; float x, average, sum=0; printf("How many numbers?"); scanf("%d", &n); for(count=1; count=n;count++) { printf("\nx="); scanf("%f",&x); sum= sum + x; } average = sum/n ; printf("\nAverage = %f", average); }</pre>	1 1 1 1	4
23	break: A break statement essentially occurs within a switch block or an iteration block. It passes the control to the statement following the last statement of the closest iteration or the closest switch statement.	1	

	<p>continue: A continue statement essentially occurs within an iteration statement. The continue statement leaves out the execution of the set of statements following it and transfers the control to the loop controlling expression of the iteration it belongs to.</p> <p>Output: address where the value of the variable n is stored/of the memory location of n, 10</p>	<p>1</p> <p>1</p> <p>1</p>	4
24	<p>In HTML, elements that include both an ON and an OFF tag are called container elements.</p> <p>'HTML elements that have only an ON tag but do not have a corresponding end tag or OFF tag are called empty elements.</p> <pre><HTML> <BODY> <HR SIZE="5" WIDTH="50%" NOSHADE> <H1>THIS IS TO TEST KNOWLEDGE </H1> </BODY> </HTML></pre>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>	5
25	<pre>sum :3, count : -2 int productfn(int x, int y) { int temp; temp = x*y; return temp;) }</pre>	<p>1</p> <p>1</p> <p>1</p> <p>2</p>	5
26	<pre><HTML> <HEAD> <TITLE> Universe </TITLE> </HEAD></pre>	<p>1</p>	

	<pre> <BODY BGCOLOR='YELLOW' LINK='GREEN' VLINK='RED' ALINK='BLUE'> <BASEFONT FACE='ARIAL'> <H1><CENTER>Planets of the Solar system</ CENTER></H1> <OL TYPE='a'> Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune Pluto <HR NOSHADE> <P ALIGN='CENTER'> To Know about sun Click Here </P> <HR NOSHADE> </BODY> </HTML> </pre>	1	5
27	<pre> #include<stdio.h> void main() { char str[30], temp; int i, j = 0; </pre>	1	1

	<pre> printf("\nEnter the string :"); scanf("%s",str); i=0; j = strlen(str) - 1; while (i < j) { temp = str[i]; str[i] = str[j]; str[j] = temp; i++; j--; } printf("\n Reverse string is :%s", str); } </pre>	1	
		2	5
28	<pre> #include<stdio.h> #define ROWS 3 #define COLS 3 int main(void) { int aMatrix[ROWS][COLS]={1,2,3},{4,5,6}, {7,8,9}}; int bMatrix[ROWS][COLS]={4,5,6},{3, 2, 1},{9, 8, 7}}; int cMatrix[ROWS][COLS]; int i, j; for(i=0; i< ROWS; i++) for(j=0; j<COLS; j++) cMatrix[i][j] = aMatrix[i][j] + bMatrix[i][j]; printf("Sum of the two matrices : \n"); for(i=0; i< ROWS; i++) { for(j=0; j<COLS; j++) printf("%d ", cMatrix[i][j]); printf("\n"); } } </pre>	1	
		3	5
		1	

Pass Marks - 20

All questions are compulsory.

For question 1 to 5 answers may be limited to 30 words.

1. In an insurance contract, what does the first party do to the second party ?
2
පළමු පක්ෂය විශ්වාසීයතාවය අත්හැර දීමට දෙවන පක්ෂයට පොලිසි ප්‍රවේශයක් සලකා දීම ?
2. Name the two important types of an offer letter.
2
අයදුම් පිටුවක වැදගත් ස්වරූපයන් දෙකක් සඳහන් කරන්න.
3. What information would a Government require from the business ? Mention any two.
2
රාජ්‍යයකින් ව්‍යාපාරිකයෙකුගෙන් ඉල්ලාගන්නා තොරතුරු දෙකක් සඳහන් කරන්න.
4. How is a business activity an integral part of a society ?
2
ව්‍යාපාරික ක්‍රියාකාරකම් සමාජයේ කෙරෙහි ඇති බලපෑම පිළිබඳව සඳහන් කරන්න.
5. Point out two situations under which a seller may reject the complaint of a buyer.
2
විකුණුම්කරු සඳහන් කර ඇති දෙකකට වඩා අයදුම්කරුගේ පැමිණිල්ල පිළිබඳව ප්‍රතික්ෂේප කළ හැකි තත්ත්ව දෙකක් සඳහන් කරන්න.

Contd.

Answer for Question Nos. 6 to 11 in about 40 words.

6. Give the importance of banking and finance in business. 3
 ණ්‍යායෝගික සහ ආර්ථිකයේ වැදගත්කම පිළිබඳව කෙටිව පැහැදිලි කරන්න.
7. Show the conditions that a bank may take up if the loanee party makes a default in payment of hypothecation loan. 3
 ණ්‍යායෝගිකයෙකුගේ ණයයක් ගෙවීමේදී ණයයෙකුගේ ණයයක් ගෙවීමේදී ගිණුම් පිළිබඳව කෙටිව පැහැදිලි කරන්න.
8. State three conditions under which insurance is required to be taken. 3
 ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී කෙටිව පැහැදිලි කරන්න.
9. What is the meaning of financial statements to a sole trader? 3
 ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී කෙටිව පැහැදිලි කරන්න.
10. Show the three broad categories of industries with example. 3
 ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී කෙටිව පැහැදිලි කරන්න.
11. Why is the encashment of a specially crossed cheque, difficult in a bank? 3
 ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී කෙටිව පැහැදිලි කරන්න.

For Question Nos. 12 to 16 answers may be limited to 60 words each.

12. A machine was purchased for Rs. 1,50,000 on 1 st of April, 2016. It was depreciated at 10% p.a. How will these represent in profit and loss account and in the balance sheet at the end of the year? 4
 ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී කෙටිව පැහැදිලි කරන්න.
13. Explain the four objectives of establishing Reserve Bank of India. 4
 ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී ණයයක් ගෙවීමේදී කෙටිව පැහැදිලි කරන්න.

- [illegible]

- ൩൯ ഇന്ദ്ര യസ്യ ഗാന്ധർവ്വ യസ്യ തേ വംശജ യസ്യ നാഗാ ജാല
നാഗ യസ്യ ॥

- [illegible]

- (b) ଆନ୍ତରାଜୀୟ - ଆନ୍ତରାଜୀୟ ମଧ୍ୟ ୫୫ (୫୫%)

17. Referring to your text-book, explain the procedures of opening Current A/C and Saving Deposit A/C in the bank.

- [illegible]

- Based on the above statement, point out four important errors with examples, inspite of the agreement of trial balance. 8

“ଜିଲ୍ଲାପତି ଓ ଶ୍ରୀମନ୍ତ୍ରୀଙ୍କ ଉପସ୍ଥାପନାରେ, ଜିଲ୍ଲାପତିଙ୍କ ସମ୍ମୁଖରେ ଉପସ୍ଥାପନା ହେବ ॥”

[illegible]

19. What is meant by 'auxiliaries to trade'?

‘ਘੋੜਾਟੀਟੀਕੇ’ ਤੇ ‘ਘੋੜਾ’ ਨੇਕਲਾ ਘੋੜਾ ਘੋੜਾ ਘੋੜਾ ?

20. What is the type of enterprise owned partly by the government and partly by private enterprise? 1

[illegible]

21. Why is premium paid in an insurance contract?

[illegible]

22. In which side of profit and loss account, will interest on Drawings be shown?

ଆଜ୍ଞାପିତ ଫଳସ୍ୱରୂପ ଟିକିଆଁ ଯାଗାଫଳ ଉତ୍ତରୀ ଲାଞ୍ଜିନ ଛାଡ଼ିଯାଆ ?

23. Give entries of the following transaction

“Salaries remained unpaid Rs. 5000”.

සැකයාගේ ප්‍රතිචාරයන්හි ඇති වෙනස්කම් :

ભાટેશી ગાળીન્ઝઠ ભણ્ણ - ટ: ૧૦૦૦ ॥

24. What is the main purpose of issuing travellers cheque by the bank?

[illegible]

25. Point out a difference between Whole Life Policy and Endowment Policy. 1

ਨੇਨ ਰੇਸ਼ ਜਾਟੇਗੀਆ ਘਾਟਸੇਸ਼ਕਾਟੁ ਜਾਟੇਗੀਆ ਘਰੀ ਜੁਲਹਠਾਮ, ਘਸਤਾ' ਰੇਘਾਸ਼ ॥

26. Why shall we care about the language of the Enquiry letter?

[illegible]

27. What is the reason of preparing a Final Account ? 1

විවෘත ව්‍යාපෘතියේ අවසාන අවස්ථාවේ පිළිවෙල කුමක් ?

28. Give reason why Marine Insurance is not popular in the state of Manipur. 1

සාගර බැරිකුණ වැනි ස්ථානවල මාරු වාහනවලට මාරු වැරදි වැඩි වන්නේ ඇයි ?

To answer Question Nos. 29 to 34, choose the correct alternatives and re write.

29. In Marine Insurance, the insurer company is also known as _____. 1

සාගර බැරිකුණ, සාගර බැරිකුණ සමාගමේ අයුතු _____ වෙත යුතු වේ။

(A) Indemnifier

ප්‍රතිපාදන දීම

(B) Underwriter

අවමන්ගන්නා

(C) Hull or Ship insurer

මෝටර් වාහන හෝ නැව් බැරිකුණ

30. The insurance policy taken to get regular income after completion of certain year, is known as _____. 1

අනුමත වර්ෂයකට පසු, නිත්‍ය උපයාම සඳහා ගන්නා වැරදි සහතිකයක් වන්නේ _____ වෙත යුතු වේ။

(A) Joint Life Policy

එකම වයසේ වැරදි

(B) Endowment Policy

සහතිකයක් වැරදි

(C) Annuity Policy

අවමන්ගන්නා වැරදි

31. Balance Sheet records only _____. 1

ණංඡාලක ලාභ්‍ය අක්කවුට් එක්වීම් රේඛා අලුත් _____ වේ. ||

(A) Real and Nominal accounts

භූමිකා අක්කවුට් එක්වීම් අක්කවුට්

(B) Nominal and Personal accounts

එක්වීම් අක්කවුට් ආවේණික අක්කවුට්

(C) Personal and Real accounts

ආවේණික අක්කවුට් භූමිකා අක්කවුට්

32. Cheques are generally crossed for _____. 1

පුද්ගලික අක්කවුට් රේඛා _____ ||

(A) security reasons

සුරක්ෂිතතා හේතු

(B) company payments

කොමිටි අක්කවුට්

(C) quick delivery

සුළු අක්කවුට්

33. Mode of payment refers to _____. 1

අය කිරීමේ ක්‍රමය _____ වේ. ||

(A) credit facilities

කුලියානු ක්‍රමයේ අය කිරීම

(B) details of goods ordered

අය කිරීමේ ක්‍රමයේ අය කිරීම

(C) settlement of accounts

අක්කවුට් ලැබීමේ ක්‍රමය

34. L.I.C premium paid will be recorded in _____. 1

අං. අ. ලී. ආ ශ්‍රේණිගත ශාඛා සඳහා _____ ව්‍යවස්ථාපිත වර්ගයකට වාර්තා වේ.

(A) Profit and Loss Account

ශ්‍රේණිගත අලුත් වත්කම්

(B) Balance Sheet liability

ප්‍රතිඵලයක් ලෙස ලබා දෙනු ලබන වත්කම්

(C) Trading Account

ව්‍යාපාරික වත්කම්

SCORING KEY FOR H.S.L.C. EXAMINATION 2019

Subject : COMMERCE

Q.No.	Key	Mark for each point	Total Marks
1	a) To make good of the losses suffered to the second party b) It may be in cash or in kind	1 1	2
2	c) Firm offer d) An offer without engagement	1 1	2
3	a) Amount of sale b) Amount of Profit (c) Or any other correct point	1 1	2
4	(a) Production of goods and services for the consumers. (b) Exchanges, transfer, storing and monetary help etc.	1 1	2
5	(a) If the consignments are not properly checked. (b) If the deficiency found is not informed quickly to the supplier and confirmed it.	1 1	2
6	(a) Financial assistance in business (b) Help in foreign exchange. (c) Help in Export and Import. (d) Assistance and guidance in running business. (Any three)	1 1 1	3
7	(a) Stock/Security may be taken back. (b) Items may be resold to recover the loan amount. (c) Legal Proceedings may be taken up.	1 1 1	3
8	(a) For life as a saving/security. (b) For protection of house/building etc. against fire. (c) For protection of the vehicles and making payments of third party claims following motor accidents. Or any other correct point)	1 1 1	3

9	Financial Statement relating to sole trader: (a) Income Statement (Trading A/C and Profit & Loss A/C) (b) Position Statement Balance Sheet	3	3																		
10	(a) Primary industry b) Secondary Industry c) Tertiary industry	with examples for each type of industry	3	3																	
11	(a) Selection of particular bank (b) Cannot be taken easily at the counter. (c) Verification is quite essential.		3	3																	
12	<table><tr><td>Dr Profit and Loss A/C</td><td>Cr</td><td>Balance Sheet</td></tr><tr><td>To Dep. 15,000</td><td></td><td>Liabilities</td></tr><tr><td></td><td></td><td>Assets</td></tr><tr><td></td><td></td><td>Machinery 150000</td></tr><tr><td></td><td></td><td>Less Dep. 15000</td></tr><tr><td></td><td></td><td><u>135000</u></td></tr></table>	Dr Profit and Loss A/C	Cr	Balance Sheet	To Dep. 15,000		Liabilities			Assets			Machinery 150000			Less Dep. 15000			<u>135000</u>	2+2	4
Dr Profit and Loss A/C	Cr	Balance Sheet																			
To Dep. 15,000		Liabilities																			
		Assets																			
		Machinery 150000																			
		Less Dep. 15000																			
		<u>135000</u>																			
13	Four objectives which are to be written: (a) Regulation on issue and circulation of Currency Notes. (b) Control and regulation of Financial operation of the Govt. (c) Organising and controlling the system of Commercial banks (d) Banker to banks and the Govt.	1x4	4																		
14	To be explained the need and importance of order letter.	4	4																		
15	The need and advantages of Profit and Loss A/C is to be written (as given in textbook)	4	4																		
16	With correct calculation in any method: CP+P=S 100 +25 =125 S-CP=P 125 -100 = 25 Now, When S P is 600000, GP = $\frac{25}{125} \times 600000 = 120000$ Therefore, Cost of goods sold = S - GP = 480000	2+2	4																		
17	Students have to follow the procedure given in text book. Application, Photograph, Introduction, Signature and opening it.(Explanation of each point should be made clearly).	8	8																		

18	Here, students have to answer by mentioning the four errors: (a) Error of Principle (b) Error of Commission (c) Compensating error (d) Error of Commission Meaning and examples are quite essential.	4x2	8
19	Activities which are used to assist the different business activities	1	1
20	Joint Sector enterprises	1	1
21	Premium is paid to the insurer by the insured monthly, half yearly or yearly to make the insurance alive.	1	1
22	On the credit side of the Profit rofit and Loss Account.	1	1
23	Salaries A/C Dr 5000 To Outstanding Salaries A/C 5000	1	1
24	To ease the risk of carrying of big sum in journey	1	1
25	Whole Life Policy Endowment Policy (Money paid after death) (Money paid either on death or maturity whichever earlier)	1	1
26	If the language is pleasing the reply may come quickly and promptly.	1	1
27	To find out Gross Profit, Profit and Loss Account and Financial Position.	1	1
28	Far off from sea or there is no good water ways.	1	1
29	(B) Underwriter	1	1
30	(C) Annuity Policy	1	1
31	(C) Personal and Real A/C	1	1
32	(A) Security Reasons	1	1
33	(C) Settlement of Accounts	1	1
34	(A) Balance Sheet Liabilities	1	1