

GATE 2022 General Aptitude (GA)

Q.1 – Q.5 Carry ONE mark each.

| Q.1 | Inhaling the smoke from a burning could you quickly. |
|-----|--|
| (A) | tire / tier |
| (B) | tire / tyre |
| (C) | tyre / tire |
| (D) | tyre / tier |

| Q.2 | A sphere of radius r cm is packed in a box of cubical shape. |
|-----|---|
| | What should be the minimum volume (in cm ³) of the box that can enclose the sphere? |
| (A) | $\frac{r^3}{8}$ |
| (B) | r^3 |
| (C) | $2r^3$ |
| (D) | $8r^3$ |

| GATE हैं हाउदानक स्थानक कर्ता का सामान्यकार करियारिको स्थानक करिताला स्टीमा | Graduate Aptitude Test in Engineering Organised by Indian Institute of Technology Kharagpur |
|---|---|
| Q.3 | Pipes P and Q can fill a storage tank in full with water in 10 and 6 minutes, respectively. Pipe R draws the water out from the storage tank at a rate of 34 litres per minute. P, Q and R operate at a constant rate. If it takes one hour to completely empty a full storage tank with all the pipes operating simultaneously, what is the capacity of the storage tank (in litres)? |
| (A) | 26.8 |
| (B) | 60.0 |
| (C) | 120.0 |
| (D) | 127.5 |

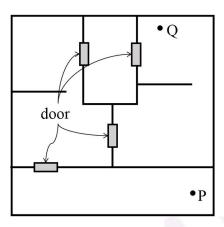


| Q.4 | Six persons P, Q, R, S, T and U are sitting around a circular table facing the center not necessarily in the same order. Consider the following statements: |
|-----|---|
| | P sits next to S and T. Q sits diametrically opposite to P. The shortest distance between S and R is equal to the shortest distance between T and U. Based on the above statements, Q is a neighbor of |
| (A) | U and S |
| (B) | R and T |
| (C) | R and U |
| (D) | P and S |



Q.5 A building has several rooms and doors as shown in the top view of the building given below. The doors are closed initially.

What is the minimum number of doors that need to be opened in order to go from the point P to the point Q?



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





Q. 6 – Q. 10 Carry TWO marks each.

| Q.6 | Rice, a versatile and inexpensive source of carbohydrate, is a critical component of diet worldwide. Climate change, causing extreme weather, poses a threat to sustained availability of rice. Scientists are working on developing Green Super Rice (GSR), which is resilient under extreme weather conditions yet gives higher yields sustainably. |
|-----|---|
| | Which one of the following is the CORRECT logical inference based on the information given in the above passage? |
| (A) | GSR is an alternative to regular rice, but it grows only in an extreme weather |
| (B) | GSR may be used in future in response to adverse effects of climate change |
| (C) | GSR grows in an extreme weather, but the quantity of produce is lesser than regular rice |
| (D) | Regular rice will continue to provide good yields even in extreme weather |





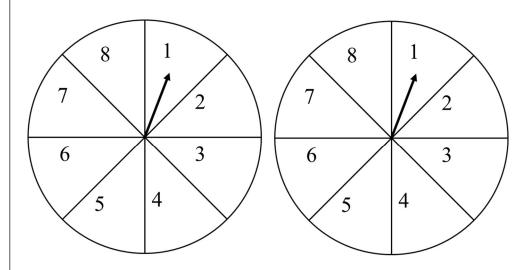
Q.7 A game consists of spinning an arrow around a stationary disk as shown below.

When the arrow comes to rest, there are eight equally likely outcomes. It could

come to rest in any one of the sectors numbered 1, 2, 3, 4, 5, 6, 7 or 8 as shown.

Two such disks are used in a game where their arrows are independently spun.

What is the probability that the sum of the numbers on the resulting sectors upon spinning the two disks is equal to 8 after the arrows come to rest?



- $(A) \left| \frac{1}{16} \right|$
- (B) $\frac{5}{64}$
- $\begin{array}{c|c} (C) & \frac{3}{32} \end{array}$
- $(D) \frac{7}{64}$





| Q.8 | Consider the following inequalities. |
|-----|--------------------------------------|
|-----|--------------------------------------|

- (i) 3p q < 4
- (ii) 3q - p < 12

Which one of the following expressions below satisfies the above two inequalities?

- (A) p + q < 8
- (B) p + q = 8
- (C) $8 \le p + q < 16$
- (D) $p + q \ge 16$



| Q.9 | Given below are three statements and four conclusions drawn based on the statements. |
|-----|--|
| | Statement 1: Some engineers are writers. |
| | Statement 2: No writer is an actor. |
| | Statement 3: All actors are engineers. |
| | |
| | Conclusion I: Some writers are engineers. |
| | Conclusion II: All engineers are actors. |
| | Conclusion III: No actor is a writer. |
| | Conclusion IV: Some actors are writers. |
| | Which one of the following options can be logically inferred? |
| (A) | Only conclusion I is correct |
| (B) | Only conclusion II and conclusion III are correct |
| (C) | Only conclusion I and conclusion III are correct |
| (D) | Either conclusion III or conclusion IV is correct |

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|---|--|
| Q.10 | Which one of the following sets of pieces can be assembled to form a square with a single round hole near the center? Pieces cannot overlap. |
| (A) | |
| (B) | |
| (C) | |
| (D) | |



GATE§

XH-B1: Q.11 – Q.17 Carry ONE mark Each

| Q.11 | A relationship is expressed as Iodine : Goitre . |
|------|--|
| | The pair(s) of words showing SIMILAR relationship is/are |
| | Space for Figure/Equation, if any: |
| (A) | Mango : Anaemia |
| (B) | Insulin : Diabetes |
| (C) | Fat: Obesity |
| (D) | Hormones : Heredity |
| | |
| Q.12 | Three individuals are named P, Q, and R. Together they have a total of fifteen children of which nine are boys. P has three girls and Q has same number of boys. Q has one more child than P, who has four children. R has four more boys than the number of girls. The number of girls of R is equal to the number of boys of P. How many boys do R and P have? |
| | Space for Figure/Equation, if any: |
| (A) | R = 3, P = 3 |
| (B) | R=4, P=2 |
| (C) | R = 5, P = 1 |
| (D) | R = 2, P = 4 |
| | |





| Q.13 | A sentence has been given below. |
|------|---|
| | The train will leave at 8:30 PM, we have been ready by 7:30 PM, so that we can reach the station on time. |
| | To make the above sentence grammatically correct, the phrase marked in <i>bold</i> is to be replaced by |
| | Space for Figure/Equation, if any: |
| (A) | were |
| (B) | are |
| (C) | must be |
| (D) | should have |
| | |
| | |
| | |
| Q.14 | Complete the sentence correctly using the options given below. |
| | Hastings (p) developed as a holiday resort after $\underline{\hspace{1cm}}(q)$ |
| | Space for Figure/Equation, if any: |
| (A) | (p) = a seaside town, $(q) =$ the first world war |
| (B) | (p) =, a seaside town, $(q) =$ the First World War |
| (C) | (p) =, a Seaside Town, $(q) =$ World War I |
| (D) | (p) = A seaside town (q) = World War I |





| Q.15 | The Arecibo telescope does not resemble what most of us think of when we hear the word telescope. Its reflective surface covers an area of 20 acres, which is quite remarkable. Dangling above it are towers and cables, sub-reflectors and antennas, all of which can be positioned using 26 motors to transmit radio waves and receive echoes with astonishing precision. From the passage, it can be inferred that most telescopes |
|------|--|
| | Space for Figure/Equation, if any: |
| (A) | are not as large as Arecibo |
| (B) | do not have reflective surface |
| (C) | cannot be re-positioned |
| (D) | strictly have 26 motors |
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| Q.16 | Tailgating another vehicle is unsafe and illegal. Many rear-end collisions are caused by drivers following too close to the vehicle in front of them. The rules state that a driver must keep significant distance from the vehicle in front in order to stop safely and avoid a collision. Drivers should allow a minimum two seconds gap between their vehicle and the one ahead. At 60 km per hour, this equates to a gap of 33 meters; at 100 km per hour, it equates to a gap of 55 meters. More distance is needed to safely stop in rain or poor visibility, as during rain slippery roads reduce the effectiveness of braking. Which of the following statement(s) can be inferred from the above passage? |
|------|---|
| | Space for Figure/Equation, if any: |
| (A) | People drive faster in rain and under poor visibility. |
| (B) | Braking may not be as effective during rain as in the dry conditions. |
| (C) | Tailgating is against the road rules. |
| (D) | Collision has no relationship with tailgating. |
| | |
| Q.17 | There are three separate, but equal-sized boxes. Inside each box, there are two separate small boxes. Inside each of the small boxes, there are four even smaller boxes. The total number of boxes will be |
| | Space for Figure/Equation, if any: |
| | |







GATE 2022 Linguistics (XH-C3) Q.18 – Q.26 Carry TWO marks Each

| In a specific language, xer dan means "big horse", liro cas means "red tomato" and dum cas dan means "big red barn". | | |
|--|--|--|
| The equivalent word for barn in this language is | | |
| Space for Figure/Equation, if any: | | |
| dum | | |
| liro | | |
| dan | | |
| cas | | |
| Mary Chr. | | |
| Park street is parallel to Rock street. Garden street is perpendicular (90°) to Lake street. Lake street is parallel to Rock street. | | |
| For the situation described above, the TRUE statement is | | |
| Space for Figure/Equation, if any: | | |
| Park street is perpendicular to Lake street | | |
| Rock street is parallel to Garden street | | |
| Park street is parallel to Garden street | | |
| Garden street is perpendicular to Park street | | |
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| Q.20 | Six examinations are required to be conducted in a week starting from Sunday to Saturday. Hindi is not scheduled on the first day and English is not scheduled before Hindi. Mathematics is scheduled one day after Physics. Biology is scheduled two days after Hindi. One day prior to Chemistry, there is no examination. Only one examination can be scheduled on a single day and Sunday is not an off day. What are the subjects scheduled on first and the last days? |
|------|--|
| | Space for Figure/Equation, if any: |
| (A) | First day Physics, Last day Biology |
| (B) | First day Physics, Last day Chemistry |
| (C) | First day Physics, Last day English |
| (D) | First day English, Last day Biology |
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| Q.21 | A passage consists of 6 sentences. The first and sixth sentences of the passage are at their correct positions, while the middle four sentences (represented by P , Q , R , and S) are jumbled up. | | | | | |
|---|---|--|--|--|--|--|
| | First sentence: Smoke oozed up between the planks. | | | | | |
| P: Passengers were told to be ready to quit the ship. | | | | | | |
| | Q: The rising gale fanned the smouldering fire. | | | | | |
| | R : Everyone now knew there was fire onboard. | | | | | |
| | S: Flames broke out here and there. | | | | | |
| | Sixth sentence: Most people bore the shock bravely. | | | | | |
| | | | | | | |
| | The most logically CORRECT order for the given jumbled up sentences is | | | | | |
| | Space for Figure/Equation, if any: | | | | | |
| (A) | QSRP | | | | | |
| (B) | QPSR | | | | | |
| (C) | RSPQ | | | | | |
| (D) | PQRS | | | | | |
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| Q.22 | For a painting to succeed, it is essential that the painter and his public agree about what is significant. The subject of the painting may have a personal meaning for the painter or a common person; but there can also be the possibility of their agreement on its general meaning. It is at this point that the culture of the society and the period in question precedes the artists and her/his art. Renaissance art would have meant nothing to the Aztecs, and vice versa. If, to some extent, a few intellectuals can appreciate them both today, it is because their culture is a historical one. Its inspiration is history and all known developments to date. According to the passage, which of the following is/are NOT necessarily among the attributes needed for a painter to succeed? | | |
|------|---|--|--|
| | Space for Figure/Equation, if any: | | |
| (A) | The subject must have a personal meaning for the painter. | | |
| (B) | The painter is able to communicate and justify the significance of its subject selection. | | |
| (C) | The painter and the public agree on what is significant. | | |
| (D) | The painting of the subjects is driven by public demand. | | |
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| Q.23 | Vinod has a pre-determined route. Each morning he delivers 37 newspapers to customers in his neighborhood. It takes Vinod 50 minutes to deliver all the papers. When Vinod was sick or had other engagements, his friend Tarun, who lives on the same street delivered the papers on his behalf. Find the statement(s) that must be TRUE according to the given information. |
|------|--|
| | Space for Figure/Equation, if any: |
| (A) | Vinod and Tarun lived in the same locality. |
| (B) | It was dark outside when Vinod began his delivery. |
| (C) | It took Tarun more than 50 minutes to deliver the papers. |
| (D) | Tarun delivered 37 newspapers to customers. |
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| Q.24 | Cholera, typhoid, diphtheria and tuberculosis cause huge number of deaths. Poor quality drinking water has always been the world's greatest single carrier of sickness. Disease is transmitted when sewage and drinking water come into contact. Children are particularly vulnerable. In some of the poorest countries the infant mortality rate is high. The separation of sewage and the supply of clean drinking water are the domain of civil engineers, and their work makes a significant contribution to public health. That contribution was recognized when public sanitation was voted the greatest medical breakthrough, beating the discoveries including antibiotics and vaccines in a poll organized by the British Medical Journal. Identify the statement(s), which is/are NOT TRUE according to the passage. | | |
|------|--|--|--|
| | Space for Figure/Equation, if any: | | |
| (A) | Children are less prone to water borne diseases. | | |
| (B) | The infant mortality rate was high in economically weaker countries. | | |
| (C) | The provision of sewage and drinking water should be adequately separated from each other. | | |
| (D) | The literature states that the public health and sanitation was never given its due importance. | | |
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| Q.25 | Shark's teeth have evolved to correspond to the diet of each particular species of shark. Consequently, the teeth of the great white shark bear little resemblance to those of the bull shark or nurse shark. There were essentially four different shark diets and thus four varieties of shark teeth. Sharks that feed on fish have needle like teeth, perfect for spearing and ripping. Sharks that eat mammals such as seals and sea lions have heavy, serrated teeth, typically triangular on the upper jaw and pointed on the lower jaw. Shark that feed in the benthic zone of the ocean have flattened teeth for crushing the shell of the creatures they find scuttling in the sand or clinging to rocks. Sharks that bask have teeth that are largely non-functional; these sharks filter food from the water by passing it through their gills. Which of the following is/are the CORRECT inference(s) as per the passage? | | |
|------|--|--|--|
| | Space for Figure/Equation, if any: | | |
| (A) | Shark's teeth are not specially designed for slaughter. | | |
| (B) | The shape of the shark's teeth relates to its prey. | | |
| (C) | Some species of sharks filter food through their gills. | | |
| (D) | Shark's teeth relate to its diet. | | |
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GATE

Q.26 A particular school management wants to contact all parents, all businessmen and all engineers. The following statistics are available with the school.

Businessmen = 50

Engineers = 25

Parents = 2500

Businessmen who are engineers = 0

Businessmen who are parents = 25

Engineers who are parents = 15

The number of people needs to be contacted are ______.

Space for Figure/Equation, if any:





GATE 2022 Linguistics (XH-C3) XH-C3 (Q.27 – Q.44 Carry ONE mark Each)

- Q.27 Linguistic determinism is best captured in _____.
- (A) Generative grammar
- (B) Sound symbolism
- (C) Critical-age hypothesis
- (D) Sapir-Whorf hypothesis
- Q.28 Match the phonological processes in column Y to their names in column X.

| Column X | Column Y | |
|-----------------------------|----------------------------------|--|
| P. Compensatory Lengthening | i. paka→paxa | |
| Q. Assimilation | ii.parka→pa:ka | |
| R. Spirantization | iii. parka > pakka | |
| S. Fortition | iv. paxa→paka | |

- (A) P-ii, Q-iv, R-iii, S-i
- (B) P iv, Q ii, R iii, S i
- (C) P-ii, Q-iv, R-i, S-iii
- (D) P iv, Q ii, R i, S iii



GATE

- Q.29 'Bilingual language acquisition' refers to the _____.
- (A) Simultaneous acquisition of two languages at a very early age
- (B) Learning of a second language after 18 years of age
- (C) Ability to acquire a second language during the first 12 months
- (D) Sequential acquisition of two languages in adulthood
- Q.30 Which of the following is the sequence of derivation as per Minimalist Program?
- (A) Numeration→ Spell-Out→Merge→Move
- (B) Numeration→Merge→Move→Spell-Out
- (C) Numeration→Move→ Merge→Spell-Out
- (D) Merge→Move→Numeration→Spell-Out



GATE

Q.31 Linguistic determinism is the strongest form of the _____

| P. UN | (i) acronym |
|-----------------|-------------------|
| Q. geek | (ii) coinage |
| R. kindergarten | (iii)borrowing |
| S INICEE | (iv) abbraviation |

- (A) P (ii), Q (iv), R (i), S (iii)
- (B) P (iv), Q (ii), R (i), S (iii)
- (C) P (ii), Q (iv), R (iii), S (i)
- (D) P (iv), Q (ii), R (iii), S (i)
- Q.32 Which of the given statements is TRUE?

Statement (I): Every spoken language includes discrete sound segments that can all be defined by a finite set of sound properties or features.

Statement (II): Speakers of all languages are capable of producing and comprehending an infinite set of sentences.

- (A) Both statement (I) and statement (II) are correct
- (B) Both statement (I) and statement (II) are incorrect
- (C) Statement (I) is correct but statement (II) is incorrect
- (D) Statement (I) is incorrect but statement (II) is correct



GATE

- Q.33 The sound change of Proto-Indo-Aryan /p/ to Germanic /f/, deduced by comparing cognates like Latin pater, Sanskrit pita and English father, is an example of
- (A) Grassman's Law
- (B) Lyman's Law
- (C) Grimm's Law
- (D) Verner's Law
- Q.34 Which of the following diagrams depict(s) the violation of a principle of autosegmental phonology?
 - (i) Segmental tier X X X Root tier [+cons]
 - (ii) Segmental tier $X \longrightarrow X$ Root tier [+cons] [-cons]
- (A) Representation (i)
- (B) Representation (ii)
- (C) Both (i) and (ii)
- (D) Neither (i) nor (ii)



GATE S

| Q.35 | In the given sentences, the semantic relationship of hyponymy can be found in between | | |
|------|--|--|--|
| | (i) The thing in the grass is a small snake.(ii) The thing in the grass is a small reptile. | | |
| (A) | reptile : grass | | |
| (B) | grass : snake | | |
| (C) | snake : reptile | | |
| (D) | small : snake | | |
| Q.36 | Bill walked into a store in New York, looking for a restroom. He asked a storekeeper which floor the men's restroom is and he replied, /ðə fəθ flə/ for <i>the fourth floor</i> . What kind of store Bill must have walked into? | | |
| (A) | A high class store | | |
| (B) | A middle class store | | |
| | | | |
| (C) | A lower class store | | |
| (D) | A Latino owned store | | |
| | | | |



GATE S

| Q.37 | Which of the followings occurred due to the <i>Great Vowel Shift</i> of the English language? |
|------|---|
| (A) | [a:] became [u:] |
| (B) | All the front vowels shifted to back |
| (C) | [ge:s] became [gi:s] |
| (D) | The high, long vowels became diphthongized |
| Q.38 | Which of the following statements are true for the pulmonic consonant table in an IPA chart? |
| (A) | Voiceless consonants aligned to the left of the cell |
| (B) | Places of articulation are arranged in rows |
| (C) | Manners of articulation are arranged in columns |
| (D) | The most constricted consonants to the least are arranged from the top to bottom |
| | |



GATE

Q.39 Identify the compounds in the given data.

| repeat | blackboard | toy factory | underestimate |
|--------|------------|-------------|---------------|
| deform | backward | bystander | sky-high |

- (A) repeat and backward
- (B) blackboard and toy factory
- (C) sky-high and underestimate
- (D) bystander and deform
- Q.40 In the production of the /z/ sound which of the following will take place?
- (A) Vocal cords will vibrate
- (B) Velum will be raised
- (C) The two lips will be in contact
- (D) Air will pass without any turbulence



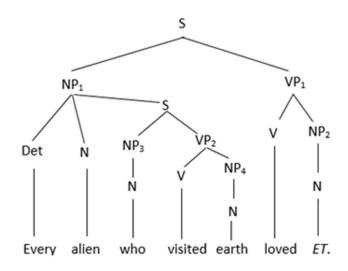
GATE

Q.41 The phrase "the first person in space" refers to Yuri Gagarin. Which of the following could be used to determine reference? (A) Russell's Theory of Description (B) Prototype Theory (C) Speech Act Theory (D) Gricean Maxims Q.42 Which of the following statement(s) apply to *pidgins*? (A) Pidgins have complex grammatical rules Pidgins do NOT have grammatical rules (B) Pidgin phonology is rule based (C) Pidgins are passed on from one generation to the other (D)



GATE

Q.43 In the given tree-structure NP₁ C-commands NP₂ but not vice versa because:



- (A) C-command cannot be a reciprocal relationship
- (B) No node dominates both NP₂ and NP₁
- (C) VP₁ dominates NP₂ and C-commands NP₁
- (D) VP₁ dominates NP₂ but not NP₁



Q.44 Which of the given pronunciations DO NOT conform to the phonological rule?

$$\begin{bmatrix} -sonorant \\ +voiced \end{bmatrix} \rightarrow \begin{bmatrix} -sonorant \\ -voiced \end{bmatrix} / \underline{\qquad}$$

(A) [dud]

GATE

- (B) [kut]
- (C) [mutab]
- (D) [pum]

Q.45 – Q.65 Carry TWO marks Each

- Q.45 Determine the correct nature of the following two utterances from the choices given below.
 - P: Hasnain said ki woh kal aayegaa (COMP he tomorrow come.will) "Hasnain said that he will come tomorrow"
 - Q: Rohan will get some desi vegetables.
 (local)
 "Rohan will get some local vegetables"
- (A) Code switching in P and Q
- (B) Borrowing in P and Q
- (C) Code switching in P and borrowing in Q
- (D) Borrowing in P and code switching in Q



Q.46 Consider the given script showing a sequence of 11 graphemes. It represents the sentence: /apa pal talip tani mil/. Each grapheme in the script contains a

45 66 606 67 38

(A) Rhyme

GATE§

- (B) Syllable
- (C) Consonant
- (D) Mora

Q.47 In the given examples, column Y are examples of ______ sentences.

| X | Y | |
|-------------------------------|---|--|
| The cat chased the rat. | It is the cat that chased the rat. | |
| The athlete broke the record. | It is the athlete that broke the record | |

- (A) Topicalization
- (B) Cleft
- (C) Pseudo-cleft
- (D) Gapping



- Q.48 A second language speaker uses the word [phonetic] as a singular noun because she interprets the word [phonetics] as a plural noun. In doing so, she is deducing a new word by the process of ______.
- (A) Blocking

GATE

- (B) Back formation
- (C) Bracketing
- (D) Back tracking

Q.49 Given the rules P and Q, what is the name of the rule ordering in dialect X and Y?

Given:

Rule P: $t \rightarrow r / V = V$

Rule Q: ai → Ai / __t

Dialect X Dialect Y

Input taipaite taipaite typewriter

Papplies taipaairo Qapplies taipanito

Q applies taipzairo P applies taipzairo

- (A) X has counter-feeding and Y has counter bleeding order
- (B) X has bleeding and Y has counter-bleeding order
- (C) X has counter-bleeding and Y has counter-feeding order
- (D) X has counter bleeding and Y has bleeding order





- Q.50 Which of the given statements is/are TRUE?
 - Statement (I): Diglossia and dialect continuum are synonymous.
 - Statement (II): Bilingual speakers are also bidialectal.
- (A) Both statement (I) and statement (II) are correct
- (B) Both statement (I) and statement (II) are incorrect
- (C) Statement (I) is correct but statement (II) is incorrect
- (D) Statement (I) is incorrect but statement (II) is correct





Q.51 Look into the data from Micaocan Aztec and match the words (P-S) to their meaning (i-iv) and select the correct sequence.

| nokali | my house | nokalimes | my houses |
|------------|---------------|-------------|----------------|
| mokali | your house | ikali | his house |
| nokwahmili | my cornfield | mokwahmili | your cornfield |
| ikwahmili | his cornfield | nomakhwames | my friends |
| mopelomes | your dogs | mopelo | your dog |

| P. kali | (i) friend |
|-------------|-----------------|
| Q. pelo | (ii) dog |
| R. kwahmili | (iii) cornfield |
| S. makhwa | (iv) house |

- (A) P-(ii), Q-(iv), R-(i), S-(iii)
- (B) P-(iv), Q-(ii), R-(i), S-(iii)
- (C) P-(ii), Q-(iv), R-(iii), S-(i)
- (D) P-(iv), Q-(ii), R-(iii), S-(i)



GATE

Q.52 Match the languages (P-U) to the language families (i-iv) and select the correct sequence.

| Languages | Language Families |
|-------------|---------------------|
| P. Kannada | (i) Indo-Aryan |
| Q. Assamese | (ii) Dravidian |
| R. Khasi | (iii) Tibeto-Burman |
| S. Nepali | (iv) Austro-Asiatic |
| T. Manipuri | |
| U. Mundari | |

(A)
$$P - (ii), Q - (i), R - (iv), S - (i), T - (iii), U - (iv)$$

(B)
$$P - (i), Q - (i), R - (iii), S - (iii), T - (iv), U - (i)$$

(C)
$$P - (ii), Q - (i), R - (iii), S - (i), T - (iii), U - (iv)$$

$$(D) \qquad P-(i),\,Q-(i),\,R-(iv),\,S-(iii),\,T-(iii),\,U-(ii)$$





Q.53 Which of the given statements is/are TRUE?

Statement (I): The International Phonetic Alphabet (IPA) is a transcription system for describing human speech sounds from all languages.

Statement (II): The voiceless pharyngeal plosive sound is missing in the IPA chart because it is physiologically impossible to articulate.

- (A) Both statement (I) and statement (II) are correct
- (B) Both statement (I) and statement (II) are incorrect
- (C) Statement (I) is correct but statement (II) is incorrect
- (D) Statement (I) is incorrect but statement (II) is correct
- Q.54 Match the terms in column X(P-S) to their descriptions in column Y(i-iv) and select the correct sequence.

| Column X | Column Y |
|----------------|---|
| P. Competence | i. one of the different meanings of an expression |
| Q. Performance | ii. actual speech in a communicative context |
| R. Sense | iii. relation between an expression and its real world entity |
| S. Reference | iv. native speaker intuition |

(A)
$$P-ii$$
, $Q-iv$, $R-iii$, $S-i$

(B)
$$P - iv$$
, $Q - ii$, $R - iii$, $S - i$

(C)
$$P-ii$$
, $Q-iv$, $R-i$, $S-iii$

(D)
$$P - iv$$
, $Q - ii$, $R - i$, $S - iii$



GATE§

- Q.55 Match the following morphological changes (P-S) to their type (i-iv) and select the correct sequence.
 - P. electric → electricity
 - Q. go → went
 - R. ox \rightarrow oxen
 - S. think > thought
- (A) P (ii), Q (iv), R (i), S (iii)
- (B) P (iv), Q (ii), R (i), S (iii)
- (C) P (ii), Q (iv), R (iii), S (i)
- (D) P (iv), Q (ii), R (iii), S (i)

- (i) Partial suppletion
- (ii)Total suppletion
- (iii) Lexically conditioned
- (iv) Phonologically conditioned





Q.56 Which of the given statements is/are TRUE?

| TELUGU | sita sita-NOM The book that | caduvina read t Sita read is on | pustakam book the table. | tebul-payina table-on | peTTundi kept-BE |
|------------|--------------------------------------|--|--------------------------------|--------------------------|---------------------|
| BANGLA | sita-r sita-GEN The book that | pOda read t Sita read is on | boi book the table. | tebil-e table-on | ache kept-BE |
| SAMBALPURI | sita sita-NOM The book that | pOdithiba read t Sita read is on | bOhi book the table. | tebul-pakhe table-on | Ochi kept-BE |
| HINDI | sita-ki sita-GEN The book that | padhi-hui read t Sita read is on | kitaab book the table. | tebil-pe table-on | hei kept-BE |

- (A) Bangla is similar to Hindi and Sambalpuri but not Telugu.
- Bangla is similar to Hindi but not Sambalpuri. (B)
- (C) Sambalpuri is similar to Telugu but not Bangla.
- (D) Sambalpuri is similar to Hindi but not Bangla.



GATE

(D)

typological change

Q.57 Lesions in different areas of the left hemisphere lead to qualitatively distinct aphasia syndromes. Which of the given statements is/are TRUE? (A) The brain lesions associated with classical anomia involves the dominant angular gyrus. (B) Conduction aphasia follows from a lesion in the posterior part of the inferior frontal gyrus. (C) Wernicke's aphasia is the consequence of a lesion in the auditory association cortex of the temporal lobe. Broca's aphasia follows from localized lesions in the temporoparietal regions. (D) Q.58 Consider the following data from English. Which linguistic change(s) is/are associated with the addition of the suffix '-able'? This book is readable. (A) sociolinguistic change (B) grammatical category change (C) semantic change



GATE

- Q.59 Children are biologically equipped to acquire all aspects of grammar. Which of the given statements is/are TRUE?
- (A) 'Telegraphic speech' occurs during the holophrastic stage.
- (B) Children generally go through three phases in the acquisition of an irregular form (overgeneralization).
- Children learn approximately 100 words a day up to 12 months. (C)
- (D) Mean length of utterances is used to measure a child's language development.

Wolof speakers use a secret language called Kall. Words in Wolof are changed to Q.60 Kall in a systematic manner, as shown in the data. In the change from Wolof to Kall, which of the given constraints cannot be violated?

| Wolof | Kall | Gloss |
|-------|-------|-------|
| sama | masa | my |
| jabar | barja | wife |
| ker | reke | home |

- (A) MAX-IO
- (B) DEP-IO
- (C) FOOT-BINARITY
- (D) LINEARITY-IO

- Q.61 The given sentence is ungrammatical because: *Tailan believes that himself is smarter than Po *Principle A* of Binding Theory is not satisfied. (A)
- (B) *Principle B* of Binding Theory is not satisfied.
- *Principle C* of Binding Theory is not satisfied. (C)
- Both *Po* and *Tailan* are possible antecedents for himself. (D)

- Q.62 Which of the given statements support the Design Features proposed by Hockett?
- Humans produce as many sentences as they have acquired. (A)
- (B) Sentences cannot be broken into smaller units as they have specific meaning.
- Humans can talk about things that are not in their immediate vicinity. (C)
- (D) Linguistic units do not bear any direct resemblance to the things they represent.



GATE

Q.63 Which of the given logical forms correspond to the following sentence where $x \in \text{student}$, $y \in \text{teacher}$ and A=admires?

Every student admires a teacher.

- (A) $\forall x \exists y \ A(x,y)$
- (B) $\forall y \exists x \ A(y,x)$
- (C) $\exists x \forall y \ A(y,x)$
- (D) $\exists y \forall x \ A(x,y)$

- Q.64 Identify the possible set(s) of stops that correlate with the corresponding VOT values.
- (A) /p/=10, $/p^h/=78$, /b/=-110
- (B) $/t/ = 120, /t^h/ = -110, /d/ = 67$
- (C) $/k/ = -121, /k^h/ = 121, /g/ = -108$
- (D) $/p^h/ = 89, /t^h/ = 92, /k^h/ = 98$



GATE§

Q.65 The estimated fundamental frequency of the given sine wave is (in integer) Hz.

