ENTRANCE EXAMINATIONS, FEBRUARY 2015 QUESTION PAPER BOOKLET

Integrated M.Phil-Ph.D.(Cognitive Science)

Marks: 75

Time: 2.00 hrs.   Hall Ticket No._____

1. Write your Booklet Code and Hall Ticket Number in the OMR Answer Sheet given to you. Also write the Hall Ticket Number in the space provided above.

2. **Read carefully the following instructions before answering:**

   a. This Question paper has Two Sections: Part- I and Part- II .

   b. Part I is to be answered by all candidates. There are three sets of questions for part II corresponding to the three streams. **Answer one and only of the sets corresponding to your stream of interest.**

   c. The stream name and code is mentioned in the beginning of each set in part II. **Mark the booklet code for the stream in the OMR sheet. Booklet code A for 'Neuroscience' stream. Booklet code B for 'Cognitive Science' stream. Boolet code C for 'Linguistic Cognition' stream.**

   d. Part - I has 35 common objective type questions for all streams and Part - II has 40 objective type questions, separate for each stream, of one mark each.

   e. **There is negative marking for all the questions in parts I and II. Each wrong answer carries -0.33 mark.**

   f. Answers are to be marked on the OMR answer sheet following the instructions provided there upon.

   g. Calculators are permitted. Logarithmic tables are not allowed

   h. Hand over the OMR answer sheet at the end of the examination to the Invigilator.

   i. No additional sheets will be provided. Rough work can be done in the question paper itself / space provided at the end of the booklet.

PART I

Directions: In the following sentences a word is underlined. From the given alternatives choose the one which best substitutes the underlines word.

1. Although charging interest is contrary to the law, the landlords contravene this by accepting a compulsory donation.

    A. circumvent
    B. escape
    C. circumspect
    D. prevent

2. Without that circumstance, he would have been jailed.

    A. happening
    B. extenuation
    C. expediency
    D. emergency

3. I saw him as old, corrupt and irretrievably evil.

    A. inertly
    B. irredeemably
    C. irreproachably
    D. irresolutely

4. The General Election gave the party no such authority.

    A. mandate
    B. permission
    C. power
    D. clout

   In questions given below, a part of the sentence is *italicised and underlined*. Below are given alternatives to the italicised part which may improve the sentence. Choose the correct alternative. In case no improvement is needed, option 'D' is the answer.

5. Will you kindly *open* the knot?

    A. untie
    B. break
    C. loose
    D. No improvement

6. The poor villagers *have waited* in the bitter cold for more than 4 hours now.

    A. have been waiting
    B. had waited
    C. has been waiting
    D. No improvement

7. Why the dinosaurs died out *is not known*.

    A. it is not known
    B. the reason is not known
    C. that is not known
    D. No improvement

    Each question consist of two words which have a certain relationship to each other followed by four pairs of related words, Select the pair which has the same relationship.

8. FILTER:WATER

    A. curtail:activity
    B. expunge:book
    C. edit:text
    D. censor:play

9. AFTER:BEFORE

    A. first:second
    B. present:past
    C. contemporary:historic
    D. successor:predecessor

10. SYMPHONY:COMPOSER

    A. Leonardo:music
    B. Fresco:painter
    C. colours:pallet
    D. art:appreciation

Two sentences are followed by a question or statement. Read the sentences, then choose the best answer to the question or the best completion of the statement.

11. To perform CPR correctly, open the victim's mouth and free the throat of any obstructions. Begin artificial breathing by blowing down the victim's cleared throat while keeping the nostrils closed with your fingers.

What is the relationship between these two statements?

A. The second statement is an example of the first.
B. The second statement is in contrast with the first.
C. The second statement describes what happens after the first.
D. The second statement restates the first.

12. There are rules that drivers and passengers should follow to stay safe when in moving vehicles. These rules include driving within the speed limit and wearing seatbelts.

What is the relationship between these two statements?

A. The second statement provides examples of the first.
B. The second statement restates the first.
C. The second statement describes an effect of the first.
D. The second statement makes a comparison to the first.

13. The number of young, unmarried people has grown dramatically in the last decade. Business people, politicians, and advertisers now target the incomes and interests of this population.

What is the relationship between these two ideas?

A. The first statement is the cause of the second.
B. The first statement contradicts the second.
C. The second statement defines the first.
D. The second statement illustrates the first

Geological Survey of India will send two teams of surveyors in the Himalayan Range. Each team will consist of at least three persons. The teams will be constituted from seven persons, Amla, Bharathi, Catherine, Devyani, Esther, Fathima, and Gargi. These persons are experts in one of the areas of Map Surveying, Data Interpretation, Paleontology and Seismology. Every group must have at least one Paleontologist and a Seismologist. Amla and Bharathi are Map Surveyors and they cannot be together. Devyani and Esther are Seismologists. Catherine and Devyani cannot be together and Gargi and Bharathi are always in the same group. Fathima is a Paleontologist.

Now answer the questions (14-18):

14. If Fathima is in the same group with Bharathi, then Catherine must be specialized in

    A. Data Interpretation
    B. Paleontology
    C. Seismology
    D. None of the Above

15. If Fathima cannot go, then what must be the specialization of Gargi?

    A. Paleontology
    B. Seismology
    C. Data Interpretation
    D. Map Surveying

16. If Devyani cannot be in the same group as Fathima, then who must always be in the group of Fathima?

    A. Amla
    B. Bharathi
    C. Catherine
    D. Esther

17. If Catherine is in the area of Data Interpretation, then who must always be in the same group as Catherine?

    A. Bharathi
    B. Devyani
    C. Esther
    D. Fathima

18. If Bharathi is not in any of the group, then who can be in the same group of Amla?

    A. Gargi and Esther
    B. Catherine and Esther
    C. Catherine and Fathima
    D. (A) or (B) or (C)

Two scientists, Rani and Raju, are each selecting a group of three strains of drosophila from a group of 7 strains T, U, V, W, X, Y and Z. No strain can be in both groups. The selections made by Rani and Raju are subject to the following conditions:

i. If U is in Rani's group, W must be in Raju's group
ii. If X in Rani's group, Z must be in Raju's group
iii. T and Z cannot be in same group
iv. W and Y cannot be in the same group

19. If X is in Rani's group, any one of the following could be in Raju's group except:
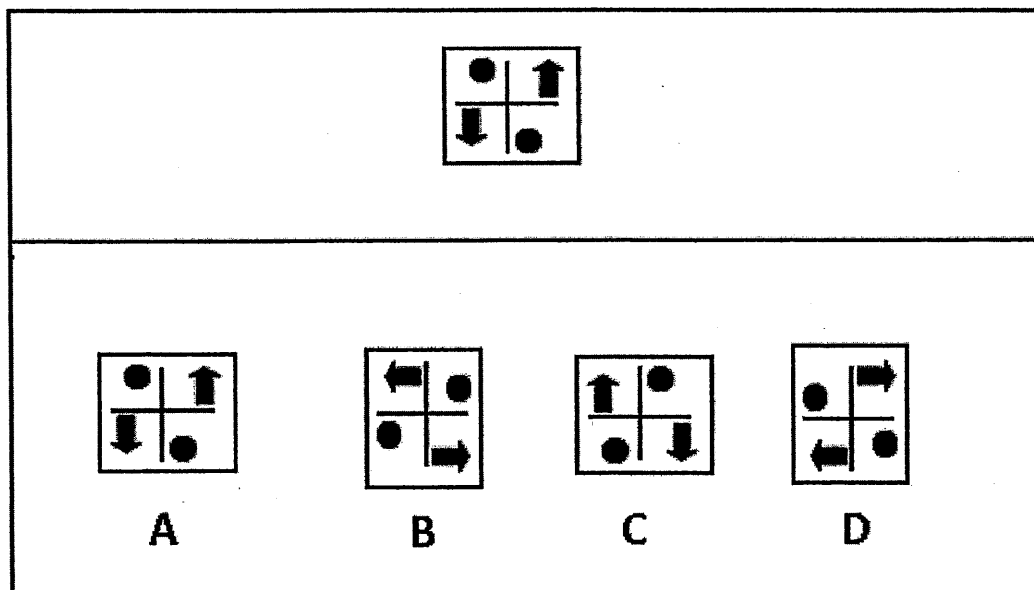
A. U
B. T
C. V
D. W

20. Which of the following pairs of groups selected by Rani and Raju conform to the restrictions?

	Rani	Raju
A.	T, U, V	W, X, Y
B.	T, U, Z	V, W, X
C.	V, W, X	U, Y, Z
D.	U, X, Z	T, W, Y

21. If U is in Rani's group, which of the following is true?

A. T must be in Rani's group
B. Y must be in Rani's group
C. V must be in Raju's group
D. Y cannot be in Raju's group

22. The reflection of an object in water below it forms an image that is known as water image. Select the water image of the figure below.

A B C D

23. You have to choose between four rooms with conditions given below

    A. The first is full of raging fires.
    B. The second is full of tigers that haven't eaten in 3 years.
    C. The third is full of assassins with loaded machine guns.
    D. The floor can cave in any time and you and whatever you are on will fall in to liquid nitrogen.

24. Pedro goes either hunting or fishing every day. If it is snowing & windy then Pedro goes hunting. If it is sunny and not windy then Pedro goes fishing. Sometimes it can be snowing and sunny.

    Which of the following statements must be true:

    A. If it is not sunny and it is snowing then Pedro goes hunting.
    B. If it is windy and Pedro does not go hunting then it is not snowing.
    C. If it is windy and not sunny then Pedro goes hunting.
    D. If it is windy and sunny then Pedro goes hunting.

25. Two dice are thrown simultaneously. What is the probability of getting two numbers whose product is even?

    A. 1/2
    B. 3/4
    C. 3/8
    D. 5/16

26. X is positive and 5 > 1/X . Then, X is

    A. equal to 1/5
    B. greater than 1/5
    C. less than 1/5
    D. None of the above

27. The three angles of a triangle are in the ratio of 1:2:3. What type of a triangle is it?

    A. An equilateral triangle
    B. An isosceles triangle
    C. An obtuse angled triangle
    D. A right angled triangle

28. Which number replaces the question mark?

4			
6	2		
9	3	1	
19	10	7	?

    A. 6
    B. 0
    C. 0.5
    D. 3

29. Kunal is in India and walks 10 km towards North. From there he walks 6 Km towards South. Then, he walks 3 Km towards east. How far and in which direction is he with reference to his starting point ?

    A. 5 Km North
    B. 5 Km South
    C. 5 Km East
    D. 5 Km North-East

30. What does the number 0100 in binary system (a number system in base 2) stand for in the decimal system?

    A. 2000
    B. 500
    C. 8
    D. 4

31. One-half of a number is 17 more than one-third of that number. What is the number?

    A. 52
    B. 84
    C. 102
    D. 204

32. In a four-digit number, the sum of the first two digits is equal to that of the last two digits. The sum of the first and last digits is equal to the third digit. Finally, the sum of the second and fourth digits is twice the sum of the other two digits. What is the third digit of the number?

    A. 5
    B. 8
    C. 1
    D. 4

33. Two boys A and B are at two diametrically opposite points on a circle. At one instant the two start running on the circle; A anticlockwise with constant speed v and B clockwise with constant speed 2v. In 2 minutes, they pass each other for the first time. How much later will they pass each other for the second time?

A. 1 minute
B. 2 minutes
C. 3 minutes
D. 4 minutes

34. 10 is the mean of a set of 7 observations and 5 is the mean of a set of 3 observations. The mean of the combined set is given by

A. 7.5
B. 8.5
C. 10
D. 15

35. A sum of money is divided among. A, B, C, D in she ratio of 3 : 5 : 9 : 13 respectively. If the share of C is Rs. 2,412 more than the share of A, then what is the total amount of money of B & D together?

A. Rs. 4,422
B. Rs. 7,236
C. Rs. 6,030
D. Rs. 4,824

PART II

Stream: Neuroscience (Mark the Booklet code A in OMR sheet)

36. In households, electric appliances are normally connected

    A. in series between phase and neutral wires
    B. in parallel between phase and neutral wires
    C. in series between phase and ground wires
    D. in parallel between phase and ground wires

37. If the velocity of an object increases causing its momentum to change by 30%, what will be the change in its kinetic energy?

    A. 169%
    B. 160%
    C. 69%
    D. 60%

38. Sound in a medium has a frequency of 2Hz and a wavelength of 100m. How long does it take for it to travel 200m?

    A. 40sec
    B. 1/4sec
    C. 1sec
    D. 4sec

39. You apply the same force on a knife and it cuts through some material while a thick rod does not. This is because

    A. Knife applies greater pressure compared to the rod
    B. Knife is meant for cutting
    C. Knife applies greater total force
    D. Knife is narrower on one side compared to the other side

40. Which among the options is the integral of the function 1/x?

    A. $\ln(x)$
    B. x^2
    C. $1/x^2$
    D. e^x

41. What is the value of f(f(5))?

   i. $f(x) = x^2 + 1$ for odd x.
   ii. $f(x) = 4x + 1$ for even x.

   A 100
   B. 95
   C. 105
   D. 110

42. Which of the following is proportional to the force exerted by an egg of mass z kg on earth if the mass of earth is M kg.

   A. zM Newtons
   B. zM^2 Newons
   C. z^2M Newtons
   D. z Newtons

43. The essential component of a step-down transformer is

   A. Electrical connection between primary and secondary coil
   B. Interaction between magnetic fields of primary and secondary coils.
   C. A dielectric core
   D. A laminated iron core

44. A Hall effect sensor

   A. exists only in theory
   B. is a noncontacting magnetic sensor
   C. measures static electric field
   D. measures echo

45. If a bee is travelling straight from its hive to a cluster of flowers with velocity v m/sec for half the total time to reach the flowers 2v m/sec for quarter of the time and v/2 m/sec for the rest to the time, what is bee's average velocity?

   A. v m/sec
   B. 7v/8 m/sec
   C. 5v/9 m/sec
   D. 9v/8 m/sec

46. Which is the false statement about light and sound?

    A. Both light and sound require media to propagate
    B. Both light and sound can diffract
    C. Both light and sound can be reflected
    D. Both light and sound can have different velocities in different media

47. Which are the main elements that make up living cells?

    A. Carbon, Nitrogen, Oxygen, Hydrogen, Silicon
    B. Carbon, Nitrogen, Oxygen, Hydrogen, Calcium
    C. Carbon, Sulphur, Oxygen, Hydrogen, Magnisium
    D. Carbon, Sulphur, Oxygen, Hydrogen, Silicon

48. If 8Volts applied to a resistor caused a current flow of 2Ampere what will be the current when 4Volts is applied?

    A. 0.5Amp
    B. 2 Amp
    C. 8 Amp
    D. 1 Amp

49. Life on earth was originated in:

    A. reducing environment
    B. oxidizing environment
    C. chlorinated environment
    D. brominated environment

50. A monkey experiences fear the first time it sees a snake. This is because:

    A. the monkey has learned to beware of snakes from its parents
    B. the monkey is frightened by any novel experience
    C. natural selection has led monkeys having an instinctive fear of snakes
    D. the monkey logically deduces that the snake must be dangerous

51. Wings of insects and birds have become flat, large and streamlined. This is an example of:

    A. Convergent evolution
    B. Parallel evolution
    C. Divergent evolution
    D. Co-evolution

52. Recipients of 2014 Nobel Prize on Physiology or Medicine were involved in the discovery of:

    A. bipolar cells and tripolar cells
    B. basket cells and endothelial cells
    C. rod cells and cone cells
    D. place cells and grid cell.

53. Among the following, which is a sex-linked disorder:

    A. Night blindness
    B. Colour blindness
    C. Cretinism
    D. Myxodema

54. Haemophilia is X linked disorder. If a haemophilic male marries a normal female, what percentage of sons will have hemophilia?

    A. 25%
    B. 50%
    C. 0%
    D. 100%

55. Active genes are associated with the loosely packed chromatin called _____.

    A. euchromatin
    B. heterochromatin
    C. metaphase chromatin
    D. silenced chromatin

56. Homeotic genes are responsible for:

    A. Homeostasis
    B. Hematopoiesis
    C. Development
    D. Cell cycle

57. Vinblastine is a poison that prevents the polymerization of microtubules. Which of the following processes are likely to be affected in the presence of Vinblastine?

    A. Protein synthesis on polysomes
    B. Protein synthesis on free ribosomes
    C. Ribosome assembly
    D. Cell division

58. Receptors for neurotransmitters are located on the:

    A. nucleus
    B. endosome
    C. Golgi apparatus
    D. cell surface

59. Depolarization of neuronal membrane during the propagation of nerve impulse or action potential involves:

    A. entry of potassium ions to the neuron
    B. entry of calcium ions to the neuron
    C. entry of chloride ions to the neuron
    D. entry of sodium ions to the neuron

60. The minimum distance at which a microscope is capable of distinguishing two points as separate is its:

    A. Magnification
    B. Illumination
    C. Resolving power
    D. Fluorescence

61. Hematopoietic stem cells are found in:

    A. Lymphoid organs
    B. Skin
    C. Bone marrow
    D. Spleen

62. Temperature-sensitive mutants are important in molecular biology because they help in studying:

    A. genes for heat stress
    B. genes for cold stress
    C. genes necessary for survival of cell or organism
    D. genes involved in heat shock response

63. First cells to be differentiated in a developing embryo are:

    A. Epithelial cells
    B. Rods
    C. RBCs
    D. Nerve cells

64. Most of the dry mass in the trunk of a tree was originally derived from

A. the soil
B. light energy
C. amino acids
D. CO_2

65. A student was given a task of identifying the contents of five bottles of amino acids from which the labels had fallen off. Each of the original bottles contained one of the following: arginine, histidine, cysteine, proline, and tryptophan. Which of the following methods could be most readily employed to identify tryptophan?

A. Electrophoresis
B. Ultraviolet spectroscopy
C. Analytical ultracentrifugation
D. Optical rotation

66. Which of the following statements about circadian rhythms is correct?

A. They are expressed during cell division only.
B. They occur only in mammals.
C. They are generated exogenously.
D. They have a periodicity of about 24 hours.

67. In the DNA sequence 5' CGA TCG GCT 3', which of the following is considered a transition type mutation?

A. 5' CGA TGG CT 3'
B. 5' CGA TCG CCT 3'
C. 5' CGA TCG GCA 3'
D. 5' CGA UCG GCU 3'

68. The experimental technique most suited for the determination of the three dimensional structure of a crystalline solid is

A. UV-visible spectrophotometer
B. polarimetry
C. X ray diffraction
D. measurement of colligative properties

69. The process of speciation can be prevented by

A. genetic differentiation
B. geographical barriers
C. gene flow
D. behavioural barriers

70. How many grams of $MgCl_2$ are required to prepare one litre of a 10-millimolar $MgCl_2$ solution? (Atomic weight of Mg = 24.3 g; atomic weight of Cl = 35.5 g.)

    A. 0.59 g
    B. 0.95 g
    C. 59 g
    D. 950 g

71. Which of the following catalyzes the transfer of a phosphoryl group to a nucleoside diphosphate

    A. Kinase
    B. Ligase
    C. Phosphatase
    D. Oxidoreductase

72. Which of the following is known as organ of balance in humans?

    A. Ear
    B. Eye
    C. Heart
    D. Brain

73. For protein detection the most commonly used probe is:

    A. lectin
    B. antigen
    C. antibody
    D. interferons

74. Which pump is responsible for initiating muscle contraction through depolarization of muscle cell membrane?

    A. Na^+ pump.
    B. K^+ pump.
    C. Ca^{2+} pump.
    D. Mg^{2+} pump.

75. Which of the following brain part is responsible for spatial navigation?

    A. Cerebellum
    B. Amygdala
    C. Hippocampus
    D. Hypothalamus

PART II

Stream : Cognitive Science (Mark the booklet code B in OMR sheet)

36. When did the cognitive revolution took place?

    A. 1930s
    B. 1950s
    C. 1980s
    D. none of the above

37. Whose name is associated with an influential model of working memory?

    A. Baddeley
    B. James
    C. Ramsey
    D. Chomsky

38. One brain center of interest to cognitive psychologists is the hippocampus, a center that:

    A. Plays a prominent role in motivation
    B. Controls intention and volition
    C. Processes abstract thoughts
    D. Appears to be crucial to the formation of memory

39. Which of the following was instrumental in producing the "cognitive revolution"?

    A. Broadbent's work with pilots during WWII
    B. Noam Chomsky's work in the field of linguistics
    C. The development of computers and artificial intelligence
    D. All of the above

40. Evidence indicates that

A. The left hemisphere is dominant for language processing while the right hemisphere is dominant for spatial processing.
B. Both hemispheres handle the same tasks but in different ways
C. The right brain is analytic while the left brain is perceptual
D. The left brain has primitive language centers but the right brain is where the real language processing occurs

41. The school of psychology that emphasizes the "whole is greater than the sum of its parts" and that emphasizes the tendency to integrate separate stimuli into meaningful patterns is the school of

A. Behaviorism
B. Gestalt Psychology
C. Functionalism
D. Structuralism

42. Whose name is associated with theories of decision making?

A. Daniel Kahneman
B. Robert Frost
C. William James
D. None of the above

43. Who originated the idea of localization of function?

A. Franz Gall
B. Wilhelm Wundt
C. William James
D. Paul Broca

44. The major problem with phrenology was the assumption that

A. Different parts of the brain controlled different functions
B. The size of a portion of the brain corresponded to its relative power
C. Different faculties were absolutely independent
D. Both (b) and (c) are correct answers

45. Disruption of language abilities is referred to as

A. Aphasia
B. Epilepsy
C. Agnosia
D. Anosmia

46. Which is a cognitive process?

    A. attention
    B. vision
    C. memory
    D. all of the above

47. Posner's name is associated with which task

    A. spatial cuing
    B. visual world
    C. simon
    D. all of the above

48. Endogenous attention shift is

    A. voluntary
    B. involuntary
    C. both of the above
    D. none of the above

49. How much time it takes to program a saccade?

    A. 200ms
    B. 400ms
    C. 50 ms
    D. None of the above

50. Broca's area is known to be involved in

    A. speaking
    B. syntactic processing
    C. sequential processing
    D. all of the above

51. Self-paced technique is widely used as a method in

    A. Sentence processing
    B. Face perception
    C. Object recognition
    D. Numerical cognition

52. Foveal vision is limited to

    A. 1-2 degrees
    B. 4-5 degrees
    C. 10-12 degrees
    D. none of the above

53. Maximum of capacity of visual short term memory is

A. 4-6 items
B. 8-9 items
C. 1-3 items
D. 12-14 items

54. The reluctance of attention to return to a location immediately is known as

A. inhibition of return
B. inhibition of cause
C. perspective taking
D. none of the above

55. Chomskyan transformation involves

A. s and d structures
B. k and m structures
C. t and l structures
D. b and d structures

56. SQUIDS (superconducting quantum interference devices) are commonly used in which neuroimaging method?

A. MEG
B. fMRI
C. both
D. none of the above

57. In ERP methodology one sees an N400 when

A. there is a semantic mismatch with the context
B. there is a working memory problem
C. when there is a reading problem
D. when there is a problem related to numerical calculation

58. ' What Mary did not know?' particularly refers to a problem in

A. Philosophy of mind
B. Philosophy of science
C. History of science
D. behavioral psychology

59. Nikolai Trubetzkoy was a founder figure in

    A. phonology
    B. semantics
    C. syntax
    D. pragmatics

60. DRC model is a cognitive model of

    A. visual word recognition
    B. sense perception
    C. memory
    D. none of the above

61. Change detection as a paradigm deals with

    A. selective attention
    B. working memory
    C. semantic processing
    D. all of the above

62. Which discipline was a core discipline in the formation of cognitive science

    A. linguistics
    B. astronomy
    C. Mechanical engineering
    D. none of the above

63. Top down effects in cognitive processing refers to

    A. an influence of context
    B. an influence of the goals of the agent
    C. both of the above
    D. only a

64. The PDP model of cognition was proposed by

    A. McClelland and Rumelhart
    B. Chomsky and Halle
    C. Steven Pinker
    D. James Watson

65. The Levelt's model is a model of

    A. sentence processing
    B. semantic memory
    C. Speech production
    D. Executive control

66. Design features of language were proposed by

    A. Charles F Hockeet
    B. Claude Levi - Strauss
    C. Posner
    D. None of the above

67. Which of the following sub-cortical structure is involved in saccade programming

    A. superior colliculus
    B. Broca's area
    C. Wernicke's area
    D. Hypothalamus

68. Word superiority effect refers to

    A. ability to recognize letters in words better than in non-words
    B. ability to identify morphology of words
    C. Identifying pragmatics of words
    D. All of the above

69. Dyslexia is a

    A. disorder of visual word recognition
    B. Disorder of sentence production
    C. Memory disorder
    D. movement disorder

70. dichotic listening paradigm is a task used to measure

    A. selective attention
    B. visual perception
    C. working memory
    D. long term memory

71. What is the cannonical sentence structure of Hindi?

    A. SOV
    B. OVS
    C. VSO
    D. None of the above

72. Visual word form area is a functional region of

    A. fusiform gyrus
    B. frontal eye field
    C. Wernicke's area
    D. cerebellum

73. Visual neglect refers to

    A. An attention disorder where patients fail to identify stimuli on any one side
    B. A disorder of action memory
    C. A disorder linked to computation
    D. A disorder linked to decision making

74. The 'computer metaphor' in cognitive science refers to

    A. Viewing the mind as a digital computer
    B. Studying computer hardware
    C. Studying animal cognition
    D. All of the above

75. Qualia in philosophy of mind refers to

    A. subjective awareness of events
    B. attending to objects
    C. knowing others bodily states
    D. none of the above

PART II

Stream : Linguistic Cognition (Mark the booklet code C in OMR sheet)

36. *My wife beats me.* This sentence is

    A. lexically ambiguous
    B. structurally ambiguous
    C. phonologically ambiguous
    D. not ambiguous

37. *He put the cat in the box on the table.* This sentence is

    A. lexically ambiguous
    B. structurally ambiguous
    C. phonologically ambiguous
    D. not ambiguous

Here is data from a hypothetical language.

bujuk kopekim	'my big dog'
kara kopekler	'black dog'
uc kukuc kopeklerim	'my three little dogs'
ik kukuc kopeklersi	'his two little dogs'
iki kopeklersi	'his two dogs'

38. 'kara kukuc kopekim' means

   A. my little black dog
   B. my three black dog
   C. his little black dog
   D. his three black dogs

39. 'bujuk kopeksi' means

   A. his big dogs
   B. my black dog
   C. his big dog
   D. my little dogs

40. New words in English very rarely start with sound combinations like [tl] or [ks]. This illustrates one of

   A. the phonological rules of English
   B. the morphological rules of English
   C. the phonetic rules of English
   D. the semantic rules of English

41. Infants distinguish /pa/ and /ba/ but not /pa/ and /ta/. This is because they go by

   A. place of articulation of phonemes
   B. voice onset time and the syllable
   C. pitch and accent of the syllable
   D. rhythm of the syllable

42. Given current evidence, what is the most likely impact of language on thought?

   A. One's language determines one's thought
   B. One's language has no impact on one's thought
   C. One's language has a permanent impact on one's thought
   D. One's language impacts one's thought indirectly by impacting memory and attention

43. The question "Can eagles that fly swim?" is about

    A. whether eagles can swim
    B. whether eagles can fly
    C. whether eagles can fly and swim
    D. whether eagles can either fly or swim

44. "Modularity," or "the modularity of mind" is

    A. the idea that language has many parts to it, like sounds and grammar
    B. the idea that the mind has many modules, just as the body has various organs
    C. the ability of the mind to understand the world
    D. the idea is that language patterns are modality specific

45. Target: *I forgot my tennis racquet at home.*
    Slip: *I forgot my tennis bat at home.*

    The slip happens at the _____ stage.

    A. conceptualization
    B. formulation
    C. articulation
    D. self-correction

46. Target: *Take my bike*
    Slip: *Bake my bike.*

    The slip happens because the speaker

    A. adds a phoneme
    B. anticipates an phoneme
    C. repeats a phoneme
    D. swaps two phonemes

47. Target: I am not in the mood for reading.
    Slip: I am not in the read for mooding.

    The slip is a result of

    A. morpheme exchange
    B. phoneme exchange
    C. meaning exchange
    D. phrase exchange

Werker and Tees (1984) looked at three infant groups (6-8 months, 8-10 months, and 10-12 months) and their perception of two non-native contrasts, the Hindi dental-retroflex contrasts -*ḍa* vs. -*d̪a*, and the Salish velar-uvular contrast in ejectives – *qi* vs. *ki*. Using the Head turn task, they found that the 6-8 month old English infants could discriminate the Hindi and Salish contrasts, while the 10-12 month old infants could not.

48. 6-8 month children showed they could

    A. discriminate all speech contrasts
    B. discriminate contrasts from cognate languages
    C. produce limited speech sounds
    D. understand Hindi and Salish

49. 10-12 month children could not perceive non-native contrasts because

    A. they had suppressed contrasts which were not phonemic in their L1
    B. they had lost their ability to discriminate contrasts
    C. they had learnt new contrasts in their L1
    D. they were told not to listen to non-native contrasts

50. *Plato's Problem* is about

    A. language acquisition
    B. language change
    C. language extinction
    D. none of the above

51. *Sita wants Hari to hate herself* violates

    A. subjacency
    B. condition A of the Binding Theory
    C. condition C of the Binding theory
    D. the ECP

52. Which of the following sentences violates the Empty Category Principle?

    A. Who do you think that Soumya likes?
    B. Who do you think that likes Soumya?
    C. Who knows what to do?
    D. What likes who?

53. Which of the following illustrates *hyponymy*?

    A. car : wheel
    B. mammal : horse
    C. black : white
    D. woodchuck : hedgehog

54. The national languages of India are

    A. Hindi and Tamil
    B. Sanskrit and English
    C. Hindi and English
    D. none of the above

55. Grimm's Law is about

    A. meaning change
    B. sound change
    C. syntactic change
    D. none of the above

56. The segment /t/ in English is

    A. dental
    B. palatal
    C. alveolar
    D. retroflex

57. *Pitch* is the same as

    A. intensity
    B. frequency
    C. volume
    D. none of the above

58. The sentence *Colorless green ideas sleep furiously* is

    A. syntactically ill-formed
    B. semantically ill-formed
    C. ambiguous
    D. none of the above

59. *The horse raced past the barn fell* is an example of a

    A. syntactically ill-formed sentence
    B. semantically ill-formed sentence
    C. garden-path sentence
    D. none of the above

60. In the sentence *Flying planes are dangerous* the word *flying* is

    A. a gerund
    B. a participle
    C. an adverb
    D. a verb

61. The term "linguistic cognition" assumes that

    A. the language faculty is identical with the cognitive faculty.
    B. all cognition is through language.
    C. language is one among the cognitive faculties.
    D. language and cognition are inseparable.

62. The words "yesterday" and "tomorrow" in English correspond to a single word "*kal*" in Hindi. This shows that

   A. Hindi speakers do not distinguish the concepts YESTERDAY and TOMORROW.
   B. there are two words *kal* in Hindi, which are homophones.
   C. Time is culturally less important in India.
   D. Hindi *kal* and the English words share a meaning component "one day away from today."

63. Some languages do not have separate words for <u>he</u> and <u>she</u>. Speakers of such languages often hesitate between these words or use the wrong pronoun when they speak English. This is an error

   A. of linguistic performance
   B. of judgement
   C. of linguistic competence
   D. of cognition

64. Language in the hearing-impaired, the blind, and the seeing-hearing populations

   A. differs in fundamental ways.
   B. is expressed through different modalities.
   C. is located in different parts of the mind-brain.
   D. is present to different degrees.

65. The sentence *All Indians know a song*

   A. is ambiguous
   B. is false
   C. is true
   D. maybe false or true depending on the context

66. In a child's story, a mother hen who finds only four of her five chicks says: "Where are my chicks? I can't find them all." A child thought the mother hen was telling a lie. This is because

   A. the child doesn't know her English properly.
   B. the child obligatorily reversed the scopes of <u>all</u> and <u>not</u>.
   C. the sentence does not allow the scope relation <u>not</u>><u>all</u>.
   D. the child did not know that quantifiers have scope relations.

67. People who know more than one language

    A. keep them separately stored in their brain
    B. have a single overarching language system in their brain
    C. have one lexicon but separate syntactic systems corresponding to each language
    D. have a way of using each language independently, regardless how they are represented in the brain.

68. According to linguistic relativity ("language affects cognition"), people who speak two unrelated languages

    A. must have two different thought systems
    B. must have a confused thought system
    C. must have a thought system that incorporates both thought systems
    D. must be allowing only one language to interact with thought.

69. Language and intelligence

    A. go together
    B. show a dependence of intelligence on language
    C. are independent of each other
    D. show a dependence of language on intelligence

70. Which of the following statements is true? "There are language deficits in which

    A. speech is fluent and grammatical but meaningless
    B. speech is dysfluent and ungrammatical but meaningful
    C. formulaic speech is preserved but creative speech is affected
    D. all of the above.

71. When a linguistic form is late-acquired, the question whether the difficulty is one of language or cognition is relevant

    A. in first or child language acquisition
    B. in second or later (after the age of 3) language acquisition
    C. in neither
    D. in both

72. Although sentences and phrases can be infinitely long, they are not so in actuality. This shows that

    A. no real speaker has the ideal native speaker's competence
    B. linguistic performance is subject to constraints of memory, fatigue, etc.
    C. language does not occur without meaningfulness
    D. linguistic rules have no real instantiation in the brain.

73. The mind-brain problem refers to

    A. the divide between philosophy and neuroscience
    B. the problem that everyone who has a brain does not have a mind
    C. the problem of how consciousness and thought arise out of the physical brain
    D. the problem that the brain cannot feel its own pain because it is not the mind.

74. The idea of a Universal Grammar means that

    A. there must be a single parent language for all human languages
    B. language is a genetic endowment which can vary within limits in its expression
    C. all human beings could understand each other even if they didn't speak
    D. babies must understand much more than we think they do, if they are to speak.

75. Read the bilingual joke below and say which of the following statements are true.
    Question: "What did one banana say to another?"
    Answer: "Akela hũũ mẽ."
    The pun in this joke is between

    A. a Hindi word and an English word
    B. an English sentence and a Hindi sentence
    C. a Hindi word and an English phrase
    D. a Hindi word and a mixed English-Hindi phrase.