XH-C3: Linguistics

C3.1 Language and Linguistics: Language spoken, written and signed; description and prescription; language and cultural heritage; language and social identity; language as an object of inquiry – its structure, units and components; design features; writing systems; biological foundations and language faculty; linguistic competence and performance; levels of grammar; contrast and complementation; rules - context dependent and context free; levels of adequacy for analysis; interdisciplinary approaches; schools of linguistic thought (European, American) and the Indian Grammatical Tradition.

C3.2 Levels of Grammar and Grammatical Analysis:
  a. **Phonetics and Phonology**: vocal tract anatomy; phonation; articulatory parameters; classification of sounds; gestural theory of speech production; cardinal vowels; secondary and co-articulation; suprasegmentals - length, stress, tone, intonation and juncture; IPA; basic physics of sound and of phonation and articulation; acoustic cues for speech sounds; organisation of phones into phonemes; phoneme inventories and cross-linguistic properties; syllable structure and phonological properties; principles of phonological analysis - phonetic similarity, contrastive and complementary distribution, free variation, allophones; linear and non-linear approaches; levels of representation; phonological rules; distinctive features (major class, manner, place, etc.); feature geometry; rule ordering, markedness and unspecified featural values; core principles of lexical phonology, optimality theory, autosegmental phonology and prosodic morphology.
  b. **Morphology:** Concepts of morpheme, morph, allomorph, zero allomorph, conditions on allomorphs; lexeme and word; types of morphemes – structural and functional; affixes vs clitics; grammatical categories; morphological theories - generative, lexicalist, process and distributed morphology; identification of morphemes and parts of speech; alternation; morphophonology; inflection vs. derivation; conjugation and declension; word creation and word formation rules and processes; creativity and productivity, blocking, bracketing paradoxes, constraints on affix ordering; mental lexicon; lexical
  categories; valency changing operations.
  c. **Syntax**: Basic syntactic units and their types: word, phrase, clause, sentence and their description and generation; grammatical and case relations; key ideas from syntactic theories, Generative Grammars including Minimalist Program, HPSG, Relational Grammar and Lexical Functional Grammar; phrase structure rules (including X-bar theory); universal grammar and cross-linguistic properties; idea of grammaticality judgements; solving the language acquisition problem; diagnostics of structure; syntactic phenomena such as movement, binding, ellipses, case-checking, islands, argument structure etc.; unergatives and unaccusatives.
  d. **Semantics and Pragmatics**: Types of meaning, lexical and compositional; syntax-semantics interface (semantic roles, binding, scope, LF etc.);sense and reference, connotation and denotation, lexical semantic relations (homonymy, hypo/hypernymy, antonymy, synonymy, ambiguity); prototype theory and componential analysis; sentence meaning and truth conditions, contradictions, entailment; basic set theory; propositions, truth values, sentential connectives; arguments, predicates, quantifiers, variables; in/definiteness, mood and modality; language use in context; sentence meaning and utterance meaning; speech acts; deixis; presupposition and implicature: Gricean maxims; information structure; politeness, power and solidarity; discourse analysis.

C3.3 Historical Linguistics: Neogrammarian laws of phonetic change such as Grimm's, Verner's, Grassmann's Laws; genesis and spread of sound change; split and merger; conditioned vs. unconditioned change; lexical diffusion of sound change; analogical changes and paradigm levelling; relative chronology of different changes; study of sound change in progress; morphosyntactic (syncretism, grammaticalisation and lexicalisation) and semantic change (extension, narrowing, figurative speech); linguistic reconstruction - external vs. internal: the comparative method; lexicostatistics; language contact and dialect geography – borrowing and impact of borrowing; pidgins and creoles; bi- and multilingualism as the source for borrowing; dialect geography - dialect atlas; isogloss, focal, transition and relic areas.

C3.4 Sociolinguistics: Micro-and macro approaches to language in society; linguistic repertoire language, dialect, sociolect, idiolect; diglossia; taboo, slang and euphemism; elaborated and restricted codes; speech community and communicative competence; ethnography of speaking; lingua franca; diasporic language; linguistic variables and their co-variation along linguistic/social dimensions; language policies and development (especially in India); language contact and outcomes (language loss, pidginization and creolization); code-mixing and code-switching; language movements – state and societal interventions; script development and modifications; linguistic minorities; language ecology and endangerment linguistic vitality, language endangerment (EGIDS scale), parameters of endangerment, documentation and revitalisation.

C3.5 Areal Typology, Universals, Cross-linguistic Features: morphological types of languages agglutinative, analytical (isolating), synthetic fusional (inflecting), polysynthetic (incorporating) languages; formal and substantive universals, absolute and statistical universals; implicational and non-implicational universals (Greenberg); linguistic relatedness—genetic, typological and areal classification of languages; universals and parametric variation; word order typology; salient features of South Asian languages - Indo-Aryan, Dravidian, Austro-Asiatic, and Tibeto-Burman language families; Linguistic Survey of India; contact induced typological change.

C3.6 Methods of analysis:

Experimental and non-experimental methods; sampling and tools; identification of variables and their variants; data processing and interpretation; quantitative analysis of data; ethnomethodology; participant observation; field methods and elicitation; document creation; ethics.

C3.7 Applied Linguistics

(Can be expanded to include Interdisciplinary areas that focus on language and Language Teaching depending on interest and requirement.)

Example: Psycholinguistics: the study of how humans learn, represent, comprehend, and produce language. Topics include word recognition and storage, sentence production and comprehension, reading, speech perception, language acquisition, neural representation of language, bilingualism, and language disorders.

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XH-C3: Linguistics (60 marks)

Q1. to Q15. are MCQ where only one answer is correct. Each question carries one mark.

Q1.   Look at the pictures a-d and match them with the parameter in i-iv for each pair of signs:

i.	Movement
ii.	Orientation
iii.	Shape
iv.	Location

(A) a-ii, b-i, c-iii, d-iv

(B) a-iii, b-ii, c-i, d-iv

(C) a-iv, b-iii, c-ii, d-i

(D) a-i, b-iv, c-iii, d-ii

Q2.   Two languages are deemed to be related members of a single language family if

(A) a majority of the speech community of the languages share the same genealogy.

(B) the languages descend from a common language ancestor by process of change.

(C) at least 50% of the basic vocabulary is common to the two languages.

(D) the languages are spoken in geographically contiguous regions.

Q3.   Sex differences in human biology that are correlated with language include

(A) the articulators and the larynx.

(B) the cortex and the mobility of the tongue.

(C) the diaphragm and the larynx.

(D) the velum and the resonant cavities.

Q4.   The number of displays in an animal's repertoire is typically

(A) about 3
(B) about 30
(C) about 300
(D) about 3,000

Q5.   The basic written units in a logographic writing system correspond to

(A) syllables
(B) morphemes
(C) concepts
(D) compounds

Q6.   Sign Language is

(A) a system of pantomime like gestural communication to convey thoughts
(B) a way of expressing language by substituting gestures for spoken words.
(C) a human language system with similar grammatical properties as spoken languages
(D) an expression of the human language in its precursor form

Q7.   Mayan hieroglyphics are understood to be

(A) a phonological writing system.
(B) a combination syllabic writing with symbols for religious concepts.
(C) a pictographic writing system.
(D) a combination of ideographic and phonetic symbols.

Q8.   Human writing systems date from the time of

(A) Cro-Magnon fossils, around 35,000 B.C.
(B) Paninian grammar at around 600 B.C.
(C) Animal domestication and pottery, around 8000 B.C.
(D) Bronze Age, around 3000 B.C.

Q9.   Young children create plurals like "childs" and "sheeps" in a phenomenon called

    (A) error propagation

    (B) analogical reasoning

    (C) over-generalisation

    (D) over-extension

Q10. Which of the following sentences expresses a direct speech act using a performative verb?

    (A) I promise to take out the garbage.

    (B) I need to take the garbage out.

    (C) I want to know who took out the garbage.

    (D) I am warning you not to take out the garbage!

Q11. From the deep structure (basic) sentence *Marie looked for radium in a makeshift lab* which one of the following <u>cannot</u> be a transformational equivalent?

    (A) Marie searched for radium in a makeshift lab.

    (B) Radium was looked for in a makeshift lab by Marie.

    (C) Marie was looking for radium in a makeshift lab.

    (D) It was radium that Marie looked for in a makeshift lab.

Q12. Consider the pair of sentences, "*Several citizens approached the judge together. They seemed happy with each other.*" What is the relation between "several citizens" and "each other"?

    (A) no relation

    (B) reciprocity

    (C) binding condition A

    (D) binding condition B

Q13. Match the pairs of words below, to a lexical relation.

	Words		Lexical Relation
a.	bear - bare	i.	graded opposites
b.	answer-reply	ii.	homonymy
c.	hot-cold	iii.	complementary opposites
d.	occupied-vacant	iv.	synonymy

(A) a-iv, b-ii, c-iii, d-i

(B) a-iii, b-i, c-I, d-ii

(C) a-ii, b-iv, c-i, d-iii

(D) a-i, b-iii, c-ii, d-i

Q14. We will say parse tree T1 is larger than T2 if T1 has more nodes and edges than T2. Suppose for the same sentence S, we construct a constituent phrase structure parse tree denoted by PT and a dependency based parse tree DT. Then which of the following will be true most of the time:

(A) PT is larger than DT.

(B) DT is larger than PT.

(C) Both will be the same size.

(D) One may be larger than the other roughly half the time so cannot say

Q15. The sentence "The old man the boat" is an example of

(A) Ambiguous sentence

(B) Garden Path sentence

(C) Ungrammatical sentence

(D) Uninterpretable sentence

Q16. to Q20. are MSQ type, where one or more answers are correct. Each question carries one mark.

Q16. Which statement below holds for non-projective dependency parse trees?

(A) They are much more likely when the language has largely fixed word order (e.g. English).

(B) They are much more likely when the language has relatively free word order (e.g. many Indian languages).

(C) Non-projective trees can occur equally often - that is word order does not matter.

(D) Non-projective trees are very rare in both fixed and relatively free word order languages.

Q17. Which of the following does NOT play a significant role in the child's learning of language?

(A) Statistical estimation

(B) Explicit instruction

(C) Phrase Structure

(D) Gricean Maxims

Q18. A language X permits a maximum of two onset consonants, a nucleus with a long or a short vowel, and a single coda consonant which must be a sonorant. Choose the word/s conforming to the phonotactics of this language.

(A) ūʔ

(B) ɛ

(C) pʊ

(D) sfʌɹ

Q19. In the interpretation of "I'll be there at six o'clock" as a threat, which of the following
cannot be felicity conditions?

(A) I am capable of being there at six o'clock.

(B) I am in the habit of being punctual.

(C) You do not want me to be there at six o'clock.

(D) You must make sure your watch is correct.

Q20. Which of the following is/are identifiably generative grammar(s)?

(A) Relational Grammar

(B) Finite State Grammar

(C) Paninian Grammar

(D) Lexical Functional Grammar

Q21. to Q30. are MCQ type, where only one answer is correct. Each question carries two marks.

Q21. Match the phonological rule in a-d to the example in i-iv:

|	**Phonological rule**		**Example**
a.	[-sonorant] → [+voice] / _____[+sonorant]	i.	ap+nat > apnad
b.	V → [+high] / _____C#	ii.	ap+nat > apunat
c.	[+consonant,-sonorant] → [+voice] / _____#	iii.	ap+nat >ap+nit
d.	Ø → [+syllabic, +back, +high]/ C__C	iv.	ap+nat > abnat

(A) a-i, b-ii, c-iii,d-iv

(B) a-iv, b-iii, c-i, d-ii

(C) a-iii, b-iv, c-ii,d-i

(D) a-ii, b-i, c-iv,d-iii

Q22. Identify the semantic roles of the seven underlined NPs in the sentence below in order.

With the new golf club, Tiger Woods whacked the ball from the woods to the grassy area near the hole and he suddenly felt invincible.

(A) agent, experiencer, goal, instrument, location, source, theme

(B) theme, source, location, instrument, goal, experiencer, agent

(C) instrument, agent, theme, source, goal, location, experiencer

(D) instrument, experiencer, theme, goal, source, location, agent

Q23. Study the following tree and match the pairs of nodes in a-d to the most appropriate structural relationship that is provided in i-iv.
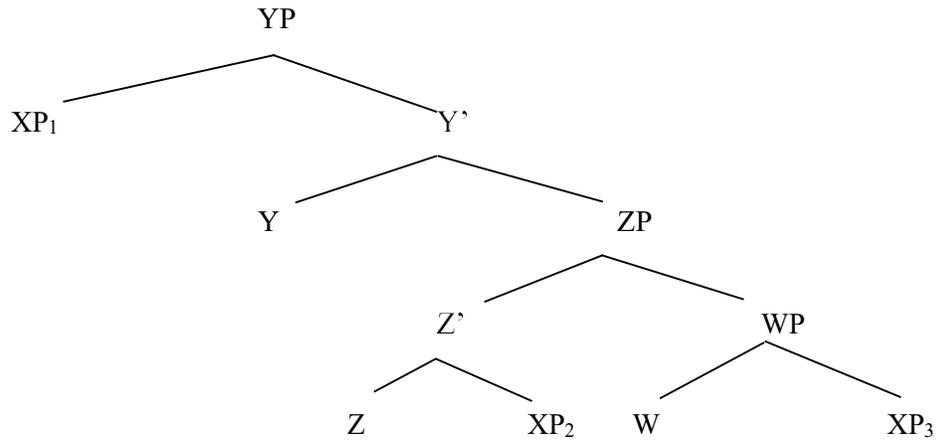
	Node Pairs		Structural Relationships
a.	XP_1-XP_3	i.	sisterhood
b.	W-XP_3	ii.	m-command
c.	ZP-XP_2	iii.	head-government
d.	XP_1-Y'	iv.	c-command

(A) a-iv, b-iii, c-ii, d-i

(B) a-i, b-iv, c-iii, d-ii

(C) a-iii, b-ii, c-i, d-iv

(D) a-ii, b-i, c-iv, d-iii

Q24. Match the pairs of sentences in a-d with the appropriate semantic relation in i-iv.

	Sentence Pair		Semantic Relation
a.	Pierre Curie is Marie Curie's husband Marie Curie is married	i.	Presupposition
b.	Vera is an only child Olga is Vera's sister	ii.	Entailment
c.	My cousin Raghav teaches at a local college My cousin Raghav is a teacher	iii.	Paraphrase
d.	My pet frog likes the taste of chocolate fudge My pet frog finds chocolate fudge tasty	iv.	Contradiction

(A) a-i, b-iii, c-ii, d-iv

(B) a-iii, b-i, c-iv, d-ii

(C) a-ii, b-iv, c-i, d-iii

(D) a-iv, b-ii, c-iii, d-i

Q25. Match the dialogues between speakers M and N given in a-d with the most appropriate Gricean Maxim in i-iv that is violated.

	Dialogue		Gricean Maxim
a.	M: Sita and Mohan are leaving tomorrow. N: I'll miss Sita.	i.	Maxim of Quality
b.	M: Let's get the children something. N: OK, but not I-C-E C-R-E-A-M [spelling it out]	ii.	Maxim of Quantity
c.	M: I might win the lottery N: Yes, and pigs might fly.	iii.	Maxim of Relevance
d.	M: Where's the sandwich? N: The dog looks happy	iv.	Maxim of Manner

(A) a-iii, b-ii, c-iv, d-i

(B) a-ii, b-iv, c-i, d-iii

(C) a-i, b-iii, c-ii, d-iv

(D) a-iv, b-i, c-iii, d-ii

Q26. Match the sentences in a-d with the logical form in i-iv that encodes them.

	Sentence		Logical form
a.	Everyone is either sincere or happy	i.	$(\forall x: person'\,(x))\,[\neg happy'\,(x) \wedge \neg sincere'\,(x)]$
b.	Not everyone is happy and sincere.	ii.	$(\forall x: person'\,(x))\,[happy'\,(x) \wedge sincere'\,(x)]]$
c.	Everyone is happy and sincere.	iii.	$(\neg\,\forall x: person'\,(x))\,[happy'\,(x) \vee sincere'\,(x)$
d.	Everyone is not happy and sincere	iv.	$(\forall x: person'\,(x))\,[happy'\,(x) \vee sincere'\,(x)]$

     (A) a-i, b-ii, c-iii, d-iv

     (B) a-iv, b-iii, c-ii, d-i

     (C) a-iii, b-iv, c-i, d-ii

     (D) a-ii, b-i, c-iv, d-iii

Q27. Match the semantic change in a-h with the example in i-viii as appropriate.

	Semantic Change		Example
a.	Metaphor	i.	*China*: name of a country > porcelain
b.	Metonymy	ii.	*Head:* part of the body > person
c.	Synecdoche	iii.	*Mouse*: animal > computer mouse
d.	Narrowing	iv.	*Dust*: to clean dust > to add a dusting
e.	Widening	v.	*Xerox*: photocopier brand > photocopiers
f.	Pejoration	vi.	*Skyline*: horizon > Skyscraper
g.	Auto antonymy	vii.	*Sophisticated*: unnatural > discriminating
h.	Amelioration	viii.	*Villain:* inhabitant of a village > scoundrel

     (A) a-i, b-ii, c-iii, d-viii, e-vii, f-iv, g-vi, h-v

     (B) a-ii, b-iii, c-vii, d-v, e-iv, f-viii, g-i, h-vi

     (C) a-iv, b-v, c-i, d-iii, e-ii, f-vi, g-vii, h-viii

     (D) a-iii, b-i, c-ii, d-vi, e-v, f-iv, g-viii, h-vii

Q28. Match the language example in a-d to its morphological typology in i-iv.

	Language example		**Morphological Type**
a.	taya ɳa ŋone ɳa yalewa PAST hit the child the girl the girl hit the child	i.	fusional
b.	te -meyne -levte -peft -erken 1-sg -great-head-ache-imperfective I have a fierce headache	ii.	polysynthetic
c.	agricul-a puell-āṣ vīdit farmer-NOM girl-ACC saw the farmer saw the girl	iii.	agglutinative
d.	ngi-rru-unthing-apu-kani I-PAST-for sometime-eat-repeatedly I kept on eating	iv.	analytical

(A) a-iv, b-iii, c-i, d-ii

(B) a-i, bii, c-iv, d-iii

(C) a-ii, b-i, c-iii, d-iv

(D) a-iii, b-iv, c-ii, d-i

Q29. Match the sounds in a-d with the air stream mechanism in i-iv.

	Phone		**Airstream Mechanism**
a.	pˀ	i.	Glottalic Ingressive
b.	꜀	ii.	Pulmonic egressive
c.	ɠ	iii.	Velaric ingressive
d.	ð	iv.	Glottalic egressive

(A) a-ii, b-i, c-iv, d-iii

(B) a-iii, b-iv, c-ii, d-i

(C) a-iv, b-iii, c-i, d-ii

(D) a-i, b-ii, c-iii, d-iv

Q30. Match the morpheme type in a-f with the examples given in i-vi.

	Morpheme type		Examples
a.	Bound root	i.	limit
b.	Free root	ii.	bird's eye
c.	Infix	iii.	remittance
d.	Circumfix	iv.	enlighten
e.	Clitic	v.	ruminating
f.	Inflection	vi.	saxomaphone

(A) a-iii, b-i, c-vi, d-iv, e-ii, f-v

(B) a-iv, b-iii, c-ii, d-i, e-v, f-iv

(C) a-iii, b-iv, c-i, d-ii, e-iv, f-ii

(D) a-v, b-ii, c-iii, d-vi, e-iv, f-ii

Q31. to Q40. are MSQ type, where one or more answers are correct. Each question carries two marks.

Q31. Which of the following words most appropriately complete this sentence?

Lenneberg observed that it was not unusual for a young child who has suffered a degree of brain damage to make a complete recovery several months later. He suggested that this was because of_____, and the task of the damaged_____was taken over by _____ areas that have not yet become____ for other functions in a property called_____.

 (A) Age/neural structures/functionally similar/specialised/plasticity

 (B) Biology/area/other/developed/adaptation

 (C) Youth/neurons/neuronal/adapted/growth

 (D) Prepubescence/tissue/neighbouring/useful/development

Q32. Match the utterances in a-d to the illocutionary force in i-iv.

	Utterance		**Illocutionary force**
a.	It is cold in here.	i.	order
b.	The snakes can crawl in.	ii.	request
c.	Could you close the door?	iii.	warn
d.	Close the door!	iv.	complain

 (A) a-i, b-ii, c-iv, d-iii

 (B) a-iv, b-iii, c-ii, d-i

 (C) a-iii, b-iv, c-i, d-ii

 (D) a-ii, b-i, c-iii, d-iv

Q33. By one year of age, infants begin to devote greater attention to_____and less attention to_____.

 (A) word learning/native language sounds

 (B) native language sounds/foreign language sounds

 (C) phonotactics/learning native language phonemes

 (D) foreign language sounds/native language sounds

Q34. Which of the statements follows from the critical period hypothesis?

(A) Imprinting happens in ducklings during the critical period with regard to environmental stimuli.

(B) A child's development will progress along a predictable trajectory regardless of environmental influences.

(C) Environmental influences will cause a child to enter a critical period of development.

(D) An innately endowed language acquisition device enables language learning.

Q35. The auditory percepts of high and low pitch, and softness and loudness of voice arises from which of the following acoustic properties?

(A) Glottal pulse rate

(B) Frequency of vocal fold vibrations

(C) Amplitude of the sound wave

(D) Wavelength of the source

Q36. Which of the following sentences helps us test the constituency of *eat the trees* in the sentence *The jabberwock could eat the trees*?

(A) What could the jabberwock do? Eat the trees!

(B) The jabberwock could eat them.

(C) The jabberwock could do it.

(D) Eat the trees the Jabberwock certainly could!

Q37. Which Event Related Potential component or components is/are considered indicative of the integration of word meaning with the wider semantic context and is thus sensitive to semantic anomalies?

(A) P600

(B) L200

(C) MMN

(D) N400

Q38. Multilingualism is the ability to speak and understand multiple languages. Many Indians are multilingual. In contrast, many other societies are monolingual. The following statements pertain to multilingualism and cognition.

    a.   Multilingualism leads to extra neural connections in the brain compared to monolingualism.

    b.   Multi-lingualism builds greater degrees of cognitive reserve. That is onset of different kinds of neuro-generative disorders is delayed or prevented in individuals who are multilingual compared to those who are monolingual.

    c.   For very young children who are learning a language for the first time, a multilingual environment can delay the learning of language.

(A) b is true.

(B) a, c are true.

(C) None of a, b, c are true.

(D) b, c are true.

Data: Use the data below from Kinyambo (Bantu language spoken in Tanzania) and answer the questions Q39. and Q40. that follow.

i.
orasoma 'you (sg.) will read'

ii.   barakoma 'they will tie'

iii.   nitukoma 'we are tying'

iv.
bakakinaga 'they lost it'

v.   nituchumba 'we are cooking'

vi.   nimujuna 'you (pl.) are helping'

nakajuna 'I helped'   vii.

viii. baratura 'they will put down'

ix. nimukichumba 'you (pl.) are cooking it'

narajuna 'I will help'   x.

xi. arakinaga 'she will lose it'

xii. nibatura 'they are putting down'

Q39. Which of the following Kinyambo sentences are grammatical?

(A) orakichumba
(B) akichumba
(C) nibarajuna
(D) murakoma

Q40. Which of the following orders of grammatical morphemes is legitimate in Kinyambo?

(A) Aspect-Subject-Tense
(B) Object-Verb
(C) Subject-Verb
(D) Tense-Subject-Aspect

END of Paper XH-C3

ANSWER KEY: XH-C3: Linguistics

Q. No.	Type	Section	Key	Marks
1.	MCQ	XH-C3	A	1
2.	MCQ	XH-C3	B	1
3.	MCQ	XH-C3	A	1
4.	MCQ	XH-C3	B	1
5.	MCQ	XH-C3	B	1
6.	MCQ	XH-C3	C	1
7.	MCQ	XH-C3	D	1
8.	MCQ	XH-C3	D	1
9.	MCQ	XH-C3	C	1
10.	MCQ	XH-C3	A	1
11.	MCQ	XH-C3	A	1
12.	MCQ	XH-C3	A	1
13.	MCQ	XH-C3	C	1
14.	MCQ	XH-C3	A	1
15.	MCQ	XH-C3	B	1
16.	MSQ	XH-C3	B	1
17.	MSQ	XH-C3	C	1
18.	MSQ	XH-C3	B, C, D	1
19.	MSQ	XH-C3	B, D	1
20.	MSQ	XH-C3	A, C, D	1
21.	MCQ	XH-C3	B	2
22.	MCQ	XH-C3	C	2
23.	MCQ	XH-C3	A	2
24.	MCQ	XH-C3	C	2
25.	MCQ	XH-C3	B	2
26.	MCQ	XH-C3	B	2
27.	MCQ	XH-C3	D	2
28.	MCQ	XH-C3	A	2
29.	MCQ	XH-C3	C	2
30.	MCQ	XH-C3	A	2
31.	MSQ	XH-C3	A	2
32.	MSQ	XH-C3	B	2
33.	MSQ	XH-C3	B	2
34.	MSQ	XH-C3	A, B	2
35.	MSQ	XH-C3	B, C	2
36.	MSQ	XH-C3	A, C, D	2
37.	MSQ	XH-C3	D	2
38.	MSQ	XH-C3	A, B, D	2
39.	MSQ	XH-C3	A, D	2
40.	MSQ	XH-C3	A, B, C	2