KENDRIYA VIDYALAYA SANGATHAN

BANGALORE REGION

BLUE PRINT FOR English core Class XI, 2021-22 session ending exam

TYPOLOGY	Testing competencies/learning outcomes	MCQ 1 /0.5 mark	VERY Short Answer TYPE/ OBJECTIVE 1 /0.5MARKS	SHORT Answer TYPE 2/3 MARKS	Very Long answer TYPE 120-150 words 5 MARKS	MARKS
READING SKILLS	Conceptual understanding, decoding analysing, inferring, critical thinking and vocabulary.		1X8	1X2 1x3		13
CREATIVE WRITING AND GRAMMAR	Expressing an opinion reasoning, justifying illustrating, appropriacy of style and tone, using appropriate format, applying conventions, using integrated structures, accuracy and fluency.	1.5X4	0.5X4	1X3	1X5	12
LITERATURE TEXT AND EXTENDED READING TEXT	Recalling, reasoning, applying literary conventions, extrapolating, identifying central themes, illustrating, justifying etc.		1X3	2X3 3X2		9 6
TOTAL		2	13	20	5	40

BLUE PRINT -Sample Question Paper
CLASS: XI Session: 2021-22
Mathematics (Code-041)
Term - 2

Time Allowed: 2 hours **Maximum Marks: 40**

General Instructions:

1. The question paper contains **three sections – A, B and C**. Each part is compulsory.
2. **Section - A** has 6 **short answer type (SA1) questions** of 2 marks each.
3. **Section – B** has 4 **short answer type (SA2) questions** of 3 marks each.
4. **Section - C** has 4 **long answer type questions (LA)** of 4 marks each.
5. There is an **internal choice** in some of the questions.
6. Q14 is a **case-based problem** having 2 sub parts of 2 marks each.

Unit	Chapter Section: ⟹ Marks : ⟹	sections			Chapter-wise Marks	Unit-wise Marks
		A	B	C		
		2	3	4		
Sets and Functions (Cont.)	Trigonometric Functions	2(4)		1(4)*	3(8)	3(8)
Algebra (Cont.)	Linear Inequalities	1(2)	1(3)*		2(5)	4(11)
	Permutations and Combinations	1(2)*		1(4)- Case Study	2(6)	
Coordinate Geometry (Cont.)	Conic Sections	1(2)		1(4)	2(6)	3(9)
	Introduction to 3-Dim Geometry		1(3)		1(3)	
Calculus (Cont.)	Derivatives	1(2)		1(4)	2(6)	2(6)
Statistics and Probability (Cont.)	Probability		1(3) 1(3)*		2(6)	2(6)
	Total	**6(12)**	**4(12)**	**4(16)**	**14(40)**	**14(40)**

(*) represents question with internal choice. Marks are mentioned within brackets. No. of questions -outside the brackets.

KENDRIYA VIDYALAYA SANGATHAN, BENGALURU REGION
SESSION ENDING EXAMINATION (2021-22)
SUB: HEALTH AND PHYSICAL EDUCATION CLASS – XI
MAXIMUM MARKS – 35
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CHAPTER NO	CHAAPTER	2 MARK Q.NO	3 MARKS Q.NO	
1	Changing Trends & Career in Physical Education	1		
2	Olympic Value Education	2		
3	Physical Fitness, Wellness & Lifestyle	4		18
4	Physical Education & Sports for CWSN (Children with Special Needs-Divyang)	9		
5	Yoga	8	14	
6	Physical Activity & Leadership Training	6		
7	Test, Measurement & Evaluation	5	12	15
8	Fundamentals of anatomy and physiology		10,11	
9	Psychology & Sports	7		
10	Training and doping in sports	3	13	16,17
TOTAL MARKS 35 marks		Any 7 (2*7=14 marks)	Any 3 (3*3=9 marks)	Any 3 (3*4=12)

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER – TERM- II SESSION 2021-22

Class: XI **Max.Marks: 35**

Subject: Physics **Time: 90 minutes**

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S.No	UNIT	SA I (2 Marks)	SA II (3 Marks)	CASE STUDY (5 marks)	TOTAL
1.	Mechanical properties of solids	--	3(1)	--	3(1)
2.	Mechanical properties of fluids	--	3(1)	5(1)	8(2)
3.	Thermal properties	--	3(2)	--	6(2)
4.	Thermodynamics	--	3(1)	--	3(1)
5.	Kinetic theory of gases	--	3(1)	--	3(1)
6.	Oscillations	2(1)	3(2)	--	8(3)
7.	Waves	2(2)	--	--	4(2)
	TOTAL	**6(3)**	**24(8)**	**5(1)**	**35(12)**

NOTE: Number of questions are given within brackets and marks outside the brackets.

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XI TERM-2 2021-22
SUBJECT: COMPUTER SCIENCE

S. NO	UNIT	TOPIC	KNOWLEDGE			UNDERSTANDING			APPLICATION			GRAND TOTAL
			SA1 (2)	SA2 (3)	LA (4)	SA1 (2)	SA2 (3)	LA (4)	SA1 (2)	SA2 (3)	LA (4)	
1	Computational Thinking and Programming –1	Lists						1		1		7
		Tuples				1				1		5
		Dictionary	1								1	6
		Introduction to Python modules				1						2
		SECTION-WISE TOTAL MARKS	**1**	**0**	**0**	**2**	**0**	**1**	**0**	**2**	**1**	**20**
2	Society, Law and Ethics	Digital Footprints	1									2
		Digital society and Netizen							1			2
		Data protection										0
		Safely communicating data	1									2
		Cyber-crime										0
		Cyber safety				1						2
		Safely accessing web sites		1								3
		E-waste management										0
		Indian Information Technology Act (IT Act)									1	4
		Technology & Society										0
		SECTION-WISE TOTAL MARKS	**2**	**1**	**0**	**1**	**0**	**0**	**1**	**0**	**1**	**15**
		TOTAL MARKS	**3**	**1**	**0**	**3**	**0**	**1**	**1**	**2**	**2**	35

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER – TERM- II

SESSION 2021-22

CLASS XI CHEMISTRY

BLUEPRINT

CHAPTER NAME	VSA (2 MARKS)	SA (3 MARKS)	CASE BASED QUESTION (5 MARKS)	TOTAL MARKS	
STATES OF MATTER	-	3(1)	-	3	15
THERMODYNAMICS	-	-	5(1)	5	
EQUILIBRIUM	4(2)	3(1)	-	7	
s BLOCK ELEMENTS	2(1)	3(1)	-	5	11
p BLOCK ELEMENTS	-	6(2)	-	6	
HYDROCARBONS	-	9(3)	-	9	9
TOTAL (MARKS)	**6 (3)**	**24 (8)**	**5 (1)**	**35**	**35**

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER - TERM – II: SESSION 2021-22

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Class : XI	**Max. Marks: 35**
Subject : BIOLOGY	**Time: 2 hours**

		Demonstrate Knowledge and Understanding-50%			Application of Knowledge -30%			Analyse, Evaluate and Create-20%			
UNIT	NAME OF THE CHAPTER	2Marks	3marks	5 marks	2Marks	3marks	5 marks	2Marks	3marks	5 marks	
Unit-III Cell: Structure and Function . **5 marks**	**Chapter-10: Cell Cycle and Cell Division** **5 marks**		1Q					1Q			5 marks
Unit-IV Plant Physiology **!2 Marks**	**Chapter-13: Photosynthesis in Higher**	1Q				1Q					5 marks
	Chapter-14: Respiration in Plants Exchange of gases **5marks**		1Q		1Q						5 marks
	Chapter-15: Plant - Growth and Development 2marks	1Q									2 marks
Unit-V Human	**Chapter-17: Breathing and Exchange of Gases 3marks**		1Q								3 marks

Physiology (**18 marks**	**Chapter-19: Excretory Products and their Elimination 3marks**					1Q					3 marks
	Chapter-20: Locomotion and Movement 2 marks	1Q									2 marks
	Chapter-21: Neural Control and Coordination 2 marks				1Q						2 marks
	Chapter-18: Body Fluids and Circulation AND Chapter-22:Chemical Coordination and Integration 8 marks		1Q							1Q	8 Marks
	Total questions	**3Q**	**4Q**		**2Q**	**2Q**		**1Q**		**1Q**	**13Q(35marks)**

NOTE:

I.The number indicated inside the bracket is marks and the number outside the bracket represents number of questions – no. of questions (marks).

II. General Instructions:

i) All questions are compulsory.

ii) The question paper has three sections and 13 questions. All questions are compulsory.

iii) Section–A has 6 questions of 2 marks each; Section–B has 6 questions of 3 marks each; and Section–C has a case-based question of 5 marks.

iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.

III.

Competencies	
Demonstrate Knowledge and Understanding	50%
Application of Knowledge / Concepts	30%
Analyse, Evaluate and Create	20%

KENDRIYA VIDYALAYA SANGATHAN, BENGALURU

Class XI Subject SANSKRIT M. Marks 40

SAMPLE QUSTIONS PAPER – TERM II SESSION 2021-2022

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खण्ड:	विषया:	प्रश्नप्रकारा:	प्रश्नसंख्या:	मूल्यभार:
क	**अपठितअवबोधनम् -10**			
1	एक: गद्यांश:	एकपदेनउत्तरम्	4x1/2	2
		पूर्णवाक्येनउत्तरम्	2x2	4
		शीर्षकलेखनम्	1x1	1
		भाषिकंकार्यम्	3x1	3
ख	**रचनात्मकंकार्यम् – 15**			
2	पत्रलेखनम्	निबन्धात्मक:	10x1/2	5
3	वार्तालापेएकपक्षपूरणम्	निबन्धात्मक:	10x1/2	5
4	संस्कृतभाषयाअनुवाद:	निबन्धात्मक:	5x1	5
ग	**पठित-अवबोधनम् (अ) – 15**			
5	गद्यांश:	प्रश्नवैविध्यम्	1+2	3
6	पद्यांश:	प्रश्नवैविध्यम्	1+2	3
7	नाट्यांश:	प्रश्नवैविध्यम्	1+2	3
8	भावार्थलेखनम्	लघूत्तरात्मक:	4x1/2	2
9	अन्वयेषुरिक्तस्थानपूर्ति:	लघूत्तरात्मक:	4x1/2	2
10	पदानाम्अर्थलेखनम्	बहुविकल्पात्मक:	4x1/2	2
		पूर्णभार:		40

SANS-SEE-1101

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUSTIONS PAPER – TERM II SESSION 2021-2022

Subject : Samskritam **Max.Marks : 40**

Class : XI [एकादशी] **Time : 1 ½ hrs**

क. अपठितअवबोधनम्-	10	अङ्का:
ख. रचनात्मकंकार्यम्-	15	अङ्का:
ग. पठितअवबोधनम्-	15	अङ्का:

निर्देशा: -

1. अस्मिन्प्रश्नपत्रे त्रय: खण्डा: सन्ति।
2. प्रत्येकं खण्डमधिकृत्य उत्तराणि एकस्मिन्स्थाने एव लेखनीयानि।
3. खण्डसंख्या अपि लेखनीया।
4. प्रश्नसंख्या प्रश्नपत्रानुसारम् अवश्यमेव लेखनीया।
5. प्रश्नपत्रे उत्तराणि न लेखनीयानि।
6. सर्वेषांप्रश्नानाम् उत्तराणि संस्कृतेन लेखनीयानि।

खंड- क अपठित-अवबोधनम् {10}

1. अधोलिखितं गद्यांशं पठित्वा प्रश्नानाम् उत्तराणि लिखत।

परिश्रम: एव सर्वातिशायी सकलकामना-सिद्धिप्रद: उपाय: वर्तते । सफलताया: मन्त्र: परिश्रम: एव । यत्र परिश्रमिण: वसन्ति तत्र सर्वाणि कार्याणि सिध्यन्ति । कार्याणि च यत्र सिध्यन्ति, तत्र प्रसन्नताया: आनन्दस्यैव वातावरणं भवति । सर्वे जना: परस्परं स्नेहं आदरम् च कुर्वन्ति । पुनश्च परिश्रमिण: मानसिकरूपेण शारीरिकरूपेण च स्वस्था: नीरोगाश्च भूत्वा आयुष्मन्त: भवन्ति । एतत् विपरीतं आलस्यमेकमेव मनुष्यस्य बलीयान् शत्रु:। आलस्यकारणात् मनुष्य: न केवलं स्वकीयम् अहितं करोति अपितु सर्वेषाम् एव जनानां कृते कष्टकारक: भवति । अलसा: जना: स्वयमपि निष्फ़ला: असफ़लाश्च भवन्ति , ते अन्यान् अपि हतोत्साहान् कृत्वा निरर्थका: इव सम्पादयन्ति । अत: आलस्यं विहाय परिश्रम: एव आचरणीय:।

1.एकपदेन उत्तरत- ½x4= 2

क. सफलताया: मन्त्र: कः ?

ख. मनुष्यस्य बलीयान् शत्रु: कः ?

ग. निष्फ़ला: असफ़लाश्च के भवन्ति ?

घ. किं विहाय परिश्रम: एव आचरणीय:?

2.पूर्णवाक्येन उत्तरत- 2x2= 4

क. परिश्रम: कीदृशः उपाय: वर्तते ?

ख. अलसा: किं कुर्वन्ति ?

3. अनुच्छेदस्य कृते उचितं शीर्षकं लिखत 1x1 =1

4. यथा निर्देशम् उत्तरत- (केवलं प्रश्नत्रयम्) 1x3= 3

क. <u>सर्वाणि कार्याणि</u> अत्र **विशेषणपदं** किम् ?

1. परिश्रमिण: 2. सर्वाणि 3.कार्याणि 4. सिध्यन्ति

ख. "आलस्यमेकमेव मनुष्यस्य बलीयान् शत्रु: भवति" अत्र **कर्तृपदं** किम् ?

1.आलस्यम् 2.मनुष्यस्य 3.बलीयान् 4.भवति

ग. "ते अन्यान् अपि हतोत्साहान् सम्पादयन्ति" अत्र **ते** इति पदं केभ्य: प्रयुक्तम् ?

1. निष्फ़लेभ्य: २. शत्रुभ्य: 3. अलसेभ्य: 4. सर्वेभ्य:

घ. "**रिपुः**" इति पदस्य किं पर्यायपदम् अत्र प्रयुक्तम्?

1. अलस: 2. बलीयान् 3.असफ़ल: 4. शत्रु:

खण्ड 'ख'-रचनात्मक मूल्यांकनम् (15)

प्र.2भवान् सोमेश: भवताम् विद्यालये गीताया: श्लोकान् अन्त्याक्षरी आयोज्यते । स्वमित्रं देवांशं प्रति लिखिते अस्मिन् पत्रे मन्जुषात:उचितानि पदानि गृहीत्वा रिक्तस्थानानि पूरयत

½x10 =5

गुरुकुल आवास:

(१).....

दिनाङ्क -

प्रिय मित्र (२).....

(३).....

अत्र सर्वं कुशलम् । अस्माकम् विद्यालये संस्कृत दिवसे एका (४)..... आयोज्यते । अस्माकं प्रतियोगिता (५)..... कक्षाया: छात्रै: (६)..... भविष्यति ।अहम् स्व कक्षाया: प्रतिनिधि: । भवान् अपि तस्मिन् दिवसे अत्र आगत्य (७) ..... पश्यतु इति निवेदनम् । भवत: मातृपितृचरणयो: (८).....।

(९)..... अभिन्न मित्रम्

(१०).....

सह, कार्यक्रमम्, अन्त्याक्षरीप्रतियोगिता, नमोनमः, प्रणामा:, सोमेश:, देवांश!, जयपुरत:, भवताम्, दशम्या:

प्र 3. संवादं समुचितपदेन वाक्येन वा पूरयत **½x10=5**

(रामायणस्य, रामायणम्, नायक:, नम:, राम:, अनुकरणीयम्, वाल्मीकि: दशरथस्य, चरित्रम्, पुत्र:)

मानसा = राधिके! तव प्रियं पुस्तकं किमस्ति?

राधिका = मम प्रियं पुस्तकं ---------- अस्ति ।

मानसा = ---------- क: रचयिता?

राधिका = ---------- रामायणस्य रचयिता अस्ति ।

मानसा = रामायणस्य क: ----------?

राधिका = --------- रामायणस्य नायक: ।

मानसा = राम: कस्य ------- आसीत् ?

राधिका = राम: ---------- ज्येष्ठ: पुत्र: आसीत् ।

मानसा = रामस्य ---------- कीदृशम् आसीत् ?

राधिका = रामस्य चरित्रम् उदात्तम् ----------चास्ति ।

मानसा = ------- एतादृशाय महापुरुषाय ।

प्र.4. अधोलिखितानां वाक्यानाम् संस्कृतभाषया अनुवादं कुरुत **1x5= 5**

1. तुम दोनों प्रात: खेलने केलिए कहाँ जाते हो?
2. माता पुत्र को मोदक देती है।
3. बिल्ली कुत्ते से डरकर भाग गई ।
4. हम सब भारतीय भारतमाता के पुत्र हैं ।
5. पर्यावरण की रक्षा हम सब का परम कर्तव्य है।

खण्ड 'ग' – पठित-अवबोधनम् (15)

5. अधोलिखितं गद्यांशं पठित्वा प्रश्नान् उत्तरत **(गद्यं, पद्यम्, संवाद:च -3+3+3)**

एकस्मिन् ग्रामोपान्ते पद्मिनी नाम्नी एका पुष्करिणी आसीत् । तत्र ग्रामस्य जना: स्नानं कुर्वन्ति। वसनं क्षालयन्ति । तस्या एव जलमानीय पिबन्ति । पाकादि कर्म च कुर्वन्ति। तत्रैव गोमेषच्छागादीनां स्नानमपि सम्पादयन्ति।

अ - एकपदेन उत्तरत **½x2 =1**

1. पुष्करिण्या: नाम किम् आसीत्?
2. ग्रामस्य जना: कुत्र स्नानं कुर्वन्ति?

आ - पूर्णवाक्येन उत्तरत **2x1=2**

1. जना: पुष्करिण्यां किम् सम्पादयन्ति?

6. अधोलिखितं श्लोकं पठित्वा प्रश्नान् उत्तरत

सन्नियम्येन्द्रियग्रामं सर्वत्र समबुद्धय:।
ते प्राप्नुवन्ति मामेव सर्वभूतहिते रता: ॥
क्लेशोऽधिकतरस्तेषामव्यक्तासक्तचेतसाम् ।
अव्यक्ता हि गतिर्दु:खं देहवद्भिरिवाप्यते ॥

अ - एकपदेन उत्तरत **½ x2=1**

1. मामेव के प्राप्नुवन्ति ?
2. केषाम् क्लेश: अधिकतर:?

आ - पूर्णवाक्येन उत्तरत **2x1=2**

सर्वभूतहितेरता: समबुद्धय: किं नियम्य मां प्राप्नुवन्ति?

7. अधोलिखितं नाट्यांशं पठित्वा प्रश्नान् उत्तरत

तन्तुवाय - श्रेष्ठिन् ! गृहाण पटम् ।

श्रेष्ठी - (भ्रूसंज्ञया) अयं क्रेष्यति, नाहं क्रेतुं शक्नोमि।

तन्तुवाय: - कस्मात्?

श्रेष्ठी - अस्य समीपे राज्ञ: प्रमाणपत्रम् अयमेव क्रेष्यति, नापर: ।

वै. गौराङ्ग: -इत आगच्छ (तन्तुवायमाह्वयति प्रमाणपत्रं दर्शयति।पटं गृह्णाति)

गृहाणेमाश्चत्वारिंशन्मुद्रा: ।(इति मुद्रा ददाति)

अ - एकपदेन उत्तरत **½x2 =1**

1. नाहं क्रेतुं शक्नोमि इति क: कथयति ?

2. कस्य समीपे राज्ञ: प्रमाणपत्रम् ?

आ - पूर्णवाक्येन उत्तरत **2x1=2**

1. गौराङ्ग: कति मुद्रा: ददाति?

8. अधोलिखित भावार्थयोः रिक्तस्थानपूर्तिं कुरुत **½x4 =2**

1 ये तु सर्वाणि कर्माणि मयि संन्यस्य मत्परा:।

अनन्येनैव योगेन मां ध्यायन्त उपासते ॥

ये तु ---------- कर्माणि ---------- संन्यस्य मत्परा: ---------- अनन्येन योगेन ----------

एव चिन्तयन्त: उपासते ।

माम्	सन्त:	ईश्वरे	सर्वाणि

9. अधोलिखित श्लोकानाम् अन्वये रिक्तस्थानपूर्तिं कुरुत **½ x4=2**

1 **तेषामहं समुद्धर्ता मृत्युसंसारसागरात्**

भवामि नचिरात् पार्थ मय्यावेशितचेतसाम् ॥

अन्वयः = हे ----------मयि !---------तेषाम् ----------,

मृत्युसंसारसागरात् नचिरात् ----------भवामि॥

समुद्धर्ता आवेशितचेतसाम् पार्थ अहं

10. रेखाङ्कित पदानाम् उचितम् अर्थं चित्वा लिखत **½ x4= 2**

1 सङ्गीतं गायामीति **व्याहरत्**। ---------- (अब्रवीत् / अश्रुणोत् / अदर्शत्)

2 **सत्वरं** त्रिचतुरांस्तन्तुवायान् समानय ।---------- (नित्यम् /मन्दम्/ क्षिप्रम्)

3 बालक: भयेन कम्पते **क्रन्दति** च। ---------- (आस्वादयति/ रोदिति/ कूर्दति)

4 केन प्रकारेण **मिथ्या** कथयसि । ---------- (आनन्देन/ अगर्हितं / असत्यं)

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SANS-SEE-1102

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUSTIONS PAPER – TERM II SESSION 2021-2022

Subject : Sanskrit **Max.Marks : 40**

Class : XI[एकादशी] **Time : 1½ hrs**

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क. अपठितअवबोधनम्-	10	अङ्का:
ख. रचनात्मकंकार्यम्-	15	अङ्का:
ग. पठितअवबोधनम्-	15	अङ्का:

निर्देशा: -

1. अस्मिन्प्रश्नपत्रे त्रय: खण्डा: सन्ति।
2. प्रत्येकंखण्डमधिकृत्यउत्तराणिएकस्मिन्स्थानेएवलेखनीयानि।
3. खण्डसंख्या अपि लेखनीया।
4. प्रश्नसंख्या प्रश्नपत्रानुसारम् अवश्यमेव लेखनीया।
5. प्रश्नपत्रे उत्तराणि न लेखनीयानि।
6. सर्वेषां प्रश्नानाम् उत्तराणि संस्कृतेन लेखनीयानि।

अपठितअवबोधनम्= 10

1.अधोलिखितं अनुच्छेदं पठित्वा प्रश्नान् उत्तरत

प्रातः कालस्य समयः । दिनकरः पूर्वस्यां दिशि सावधानेन उदयमुखम् आरोहन् आसीत्। तदैव एकःस्वातिः इति ऋषिपुङ्गवः स्व आश्रमात् बहिरागत्य वनाभिमुखोऽअभवत् । तत्र च वने बहुकालम् उपविशन् स्वाध्ययनस्य कार्यं कुर्वन् आसीत् । एवं निरन्तरं कार्यं कुर्वन् पिपासितः अभवत्। ततः जलम् अन्विष्यन् एकस्य पर्वतस्य समीपं अगच्छत् । तत्र पर्वतात् शुष्कपर्णानाम् उपरि पतन्तः जलबिन्दवः मधुरं ध्वनिं जनयन्ति स्म। तेषां जलबिन्दूनाम् आह्लादकरं रवं श्रुत्वा सः आश्रमम् आगतः । तत्र आगत्य प्रतिध्वनिविज्ञानेन सङ्गीतस्य प्रधानं साधनं अन्विष्टवान् । तस्य साधनस्य एव नाम अस्ति मृदङ्गः इति । इयं च कथा भरतमुनेः नाट्यशास्त्रे सम्यक्तया निरूपिता वर्तते ।

क) एकपदेन उत्तरं लिखत **½ x4 = 2**

1)कस्यां दिशि दिनकरः उदयमुखम् आरोहति ?

2)वने उपविशन् ऋषिपुङ्गवः कस्य कार्यं कुर्वन् आसीत् ?

3) सङ्गीतसाधनस्य नाम किमासीत् ?

4)कस्मात् जलबिन्दवः शुष्कपार्णानाम् उपरि पतन्ति ?

ख) पूर्णवाक्येन उत्तरं लिखत (प्रश्नद्वयमेव) **2 x 2 =4**

1) मुनिः कं श्रुत्वा आश्रमम् आगतः ?

2) आश्रमम् आगत्य किं सः अन्विष्टवान् ?

3) एषा कथा कुत्र निरूपिता वर्तते ?

ग) अस्य अनुच्छेदस्य उचितं शीर्षकम् लिखत **1x1 = 1**

घ) निर्देशानुसारम् उत्तरं लिखत (केवलं प्रश्नत्रयम्) **1 x3 = 3**

1) दिशि इत्यस्य किं विशेषणपदम् अस्ति ?

2)कठोरम् इत्यस्य किं विलोमपदम् अत्र अस्ति ?

3)उदकम् इत्यस्य किं समानार्थकपदम्अनुच्छेदे अस्ति ?

4)सः आश्रमम् आगतः अत्र सः इति पदं कस्मै प्रयुक्तम् ?

रचनात्मकं कार्यम् = 15

2. विद्यालयस्य वर्णनात्मकं पत्रम् उचितपदैः पूरयत **½ x10 = 5**

(अभिन्नमित्रम्, पुस्तकालये, चरणयोः, राजीव !, सस्नेहनमस्कारः, शतप्रतिशतम्, मनोयोगेन,करोमि, क्रीडाक्षेत्रे, विद्यालयः)

परीक्षाभवनम्

दिनाङ्कः: =

प्रिय ----------

भवत: पत्रम् प्राप्तम् । मन: अतीव प्रासीदत् । यथा भवता कथिता तथा अहं अधुना स्वविद्यालयस्यवर्णनं ----------। मम ----------अतीव सुन्दर: विशाल: च अस्ति । अत्र त्रिसहस्रं छात्रा:----------पठन्ति ।---------- पुस्तकानां पत्रपत्रिकाणां च सुव्यवस्था अस्ति ।----------वालीबाल-क्रिकेट् आदि खेलानाम् उत्तम: प्रबन्ध: अस्ति । बोर्डपरीक्षापरिणाम: प्रतिवर्षम् ----------भवति ।।

मातापित्रो: ---------- प्रणामा: ।

भवत: ----------

अरविन्द:

3. अनुच्छेदम् उचितपदैः पूरयत **½ x10 = 5**

{ प्रभाव:, सज्जनानां, सत्पुरुषा:, भगवत:, दुर्लभ:, सङ्गेन, संसारे, मधुरभाषिण:, सन्ति, सज्जन: }

सतां 1---------- वा सङ्गति: सत्सङ्गति: इति कथ्यते ।2---------- परोपकारिण:,दयावन्त:,त्यागशीला:,विनम्रा:,3---------- परहितरता: च भवन्ति । नूनं साधुसङ्गम: 4---------- । मनुष्यस्य उपरि सत्सङ्गस्य महान् 5---------- भवति । नर: दुर्जनानां 6---------- दुर्जन: , सज्जनानां सङ्गेन 7---------- च भवितुं शक्नोति । 'संसर्गजा; गुणदोषा:' 8---------- । चन्दनसङ्गत्या निम्ब: अपि चन्दनायते । सुमन: सङ्गात् कीट: अपि 9---------- शिरसि आरोहति । अत: सज्जनसङ्गति: 10---------- श्रेष्ठा अस्ति ।।

प्र.4. अधोलिखितानां वाक्यानाम् संस्कृतभाषया अनुवादं कुरुत **1x5= 5**

1. छात्र पुस्तक पढने केलिए पुस्तकालय जाते हैं।
2. सीता राम की पत्नी थी ।
3. हम सब वाटिका में गेंद से खेलते हैं ।
4. महिलाएँ सेवकों को वस्त्र देती है।
5. धर्म से हीन जीवन को धिक्कार है ।

पठितावबोधनम् - 15

5. अधोलिखितं गद्यांशं पठित्वा प्रश्नान् उत्तरत

महाराजस्य बहु सन्तोषोऽभवत् । एवं परितुष्ट: राजा पारितोषिकत्वेन बालाय सताम्बूलम् उत्तरीयवस्त्रं दत्वा आह – हे वत्स! त्वं मेधावी असि। सुष्ठु सङ्गीतं शिक्षित्वा सम्यक् गातुं भवान् अभ्यस्यतु । इतोऽप्यधिकं पारितोषिकं भवते वयं दास्याम: इति ।

अ - एकपदेन उत्तरत **½ x 2 = 1**

1 कस्य सन्तोष: अभवत् ?

2 राजा बालाय किम् अयच्छत् ?

आ - पूर्णवाक्येन उत्तरत **2x1 = 2**

1 राजा बालकं किम् आह ?

2 राजा बालकाय अधिकं किं दातुम् इच्छति स्म ?

6. अधोलिखितं श्लोकं पठित्वा प्रश्नान् उत्तरत

सन्नियम्येन्द्रियग्रामं सर्वत्र समबुद्धय:।
ते प्राप्नुवन्ति मामेव सर्वभूतहिते रता: ॥
क्लेशोऽधिकतरस्तेषामव्यक्तासक्तचेतसाम् ।
अव्यक्ता हि गतिर्दु:खं देहवद्भिरिवाप्यते ॥

अ - एकपदेन उत्तरत **½ x2=1**

1. मामेव के प्राप्नुवन्ति ?
2. केषाम् अधिकतर: क्लेश:?

आ - पूर्णवाक्येन उत्तरत **2x1=2**

सर्वभूतहितेरता: समबुद्धय: किं नियम्य मां प्राप्नुवन्ति?

7. अधोलिखितं नाट्यांशं पठित्वा प्रश्नान् उत्तरत

तन्तुवाय - श्रेष्ठिन् ! गृहाण पटम् ।

श्रेष्ठी - (भ्रूसंज्ञया) अयं क्रेष्यति, नाहं क्रेतुं शक्नोमि।

तन्तुवाय: - कस्मात्?

श्रेष्ठी - अस्य समीपे राज्ञ: प्रमाणपत्रम् अयमेव क्रेष्यति, नापर: ।

वै. गौराङ्ग: -इत आगच्छ (तन्तुवायमाह्वयति प्रमाणपत्रं दर्शयति।पटं गृह्णाति)

गृहाणेमाश्चत्वारिंशन्मुद्रा: ।(इति मुद्रा ददाति)

अ - एकपदेन उत्तरत **½x2 =1**

1. नाहं क्रेतुं शक्नोमि इति क: कथयति ?

2. कस्य समीपे राज्ञ: प्रमाणपत्रम् ?

आ - पूर्णवाक्येन उत्तरत **2x1=2**

1. गौराङ्ग: कति मुद्रा: ददाति?

8. अधोलिखितभावार्थयोः रिक्तस्थानपूर्तिं कुरुत **½x4=2**

1 ये तु सर्वाणि कर्माणि मयि संन्यस्य मत्परा:।

अनन्येनैव योगेन मां ध्यायन्त उपासते ॥

ये तु ---------- कर्माणि ---------- संन्यस्य मत्परा: ---------- अनन्येन योगेन ----------

--एव चिन्तयन्त: उपासते ।

माम्	सन्त:	ईश्वरे	सर्वाणि

9. अधोलिखित श्लोकानाम् अन्वये रिक्तस्थानपूर्तिं कुरुत **½ x4=2**

1 **तेषामहं समुद्धर्ता मृत्युसंसारसागरात्**

भवामि नचिरात् पार्थ मय्यावेशितचेतसाम् ॥

अन्वयः = हे ---------- मयि ---------- तेषाम् ----------,

मृत्युसंसारसागरात् नचिरात् ----------भवामि॥

समुद्धर्ता आवेशितचेतसाम् पार्थ अहं

10. रेखाङ्कितपदानाम् उचितम् अर्थं चित्वा लिखत **½ x4= 2**

1 सङ्गीतं गायामीति **व्याहरत्** । ---------- (अब्रवीत् / अश्रुणोत् / अदर्शत्)

2 **सत्वरं** त्रिचतुरांस्तन्तुवायान् समानय ।---------- (नित्यम् /मन्दम्/ क्षिप्रम्)

3 बालकः भयेन कम्पते **क्रन्दति** च। ---------- (आस्वादयति/ रोदिति/ कूर्दति)

4 केन प्रकारेण **मिथ्या** कथयसि । ---------- (आनन्देन/ अगर्हितं / असत्यं)

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SANS-SEE-1103

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUSTIONS PAPER – TERM II SESSION 2021-2022

Subject : Sanskrit **Max.Marks : 40**

Class : XI **Time : 1 ½ hrs**

क. अपठित अवबोधनम् -	10	अङ्का:
ख. रचनात्मकं कार्यम् -	15	अङ्का:
ग. पठित अवबोधनम् -	15	अङ्का:

निर्देशा: -

1. अस्मिन् प्रश्नपत्रे त्रय: खण्डा: सन्ति ।
2. प्रत्येकं खण्डमधिकृत्य उत्तराणि एकस्मिन् स्थाने एव लेखनीयानि ।
3. खण्डसंख्या अपि लेखनीया ।
4. प्रश्नसंख्या प्रश्नपत्रानुसारम् अवश्यमेव लेखनीया ।
5. प्रश्नपत्रे उत्तराणि न लेखनीयानि ।
6. सर्वेषां प्रश्नानाम् उत्तराणि संस्कृतेन लेखनीयानि ।

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क. अपठित अवबोधनम् = 10

1.अधोलिखितं गद्यांशं पठित्वा प्रश्नान् उत्तरत ।

अस्माकं भारतदेशः जगति सांस्कृतिकरूपेण विश्वगुरुः इति विख्यातः। यतः अस्य देशस्य प्राचीना संस्कृतिः वेदोपनिषदादिभिः पोषिता वर्तते । वेदाः अपौरुषेयाः इति विद्वांसः वदन्ति। मुनीनां तपः प्रभावेण साधनया वा वेदाः संदृष्टाः इत्येव अस्मासु भारतीयेषु परमः विश्वासः । एते वेदोपनिषदाम् उपदेशाः सर्वदा सात्त्विकं गुणम् एव उपदिशन्ति । अतः "सर्वे भवन्तु सुखिनः" इति उपनिषदः वाक्यं सङ्गच्छते । परोपकारबुद्धिः, परसहिष्णुता, राष्ट्रभक्तिः, ज्येष्ठेषु गौरवभावः इत्यादयः सदाचाराः भारतीयतत्त्वशास्त्रे प्रधानाः अंशाः । उदारचारित्र्यम् अस्माकं जन्मजातः गुणः । आत्मनि कष्टम् अनुभूय अपि अन्यान् वयम् उद्धरामः । विदेशीयाः अपि अस्माकम् इमान् उत्तमगुणान् परिवीक्ष्य आकर्षिताः भूत्वा भारतवर्षम् आगच्छन्ति । अस्माकं तत्त्वशास्त्रम् अध्येष्यन्ते । अतः वयं भारतीयाः आत्मनः धन्यान् मन्यामहे यत्र पुण्यधरायाम् अस्माकं जन्म अभवत् ।

अ. एकपदेन उत्तरं लिखत । **½x4=2**

1. मुनीनां तपः प्रभावेण के सन्दृष्टाः ?

2. कः विश्वगुरुः इति विख्यातः ?

3.अस्माकं जन्म कुत्र अभवत् ?

4.केषाम् उपदेशाः सात्त्विकं गुणम् एव बोधयन्ति ?

आ. पूर्णवाक्येन उत्तरं लिखत । **2 x2=4**

1.भारतीयतत्त्वशास्त्रस्य के अंशाः प्रधानाः इति गण्यन्ते ?

2.काभिः प्राचीना संस्कृतिः पोषिता वर्तते ?

इ. अनुच्छेदस्य कृते **उचितं शीर्षकं लिखत** । **1x1=1**

ई. निर्देशानुसारम् उत्तरं लिखत ।(केवलं प्रश्नत्रयमेव) **1x3=3**

1. संस्कृतिः अस्य किं विशेषणं अनुच्छेदे अस्ति ?

2. उद्धरामः क्रियायाः कर्ता कः ?

3. श्रुतयः अस्य किं समानार्थकपदम् अनुच्छेदे अस्ति ?

4. दुःखिनः अस्य किं विलोमपदम् अनुच्छेदे अस्ति ?

ख. रचनात्मकं कार्यम् - 15

प्र.2.भवती प्रेरणा ।भवत्याः सखी प्रमोदा। भवत्या संस्कृतनाटके कृष्णस्य अभिनयः कृतः, प्रथमः पुरस्कारः च लब्धः। तत्सूचयन् स्वसखीं प्रति लिखिते पत्रे मञ्जूषातः पदानि स्वीकृत्य रिक्तस्थानानि पूरयत । **½ x10=5**

छात्रावासः
केन्द्रीयविद्यालयः
(i)---------

प्रिय सखि! (ii)----------

(iii)----------नमो नमः ।

अहं भवतः (iv)----------स्वस्था अस्मि, । मम विद्यालये एका (v) ----------अभवत् अहं तत्र कृष्णस्य अभिनयं(vi)---------- | यदा अहं दुर्योधनस्य सभां प्रविश्य (vii)----------कृते पञ्च ग्रामान् याचितवती, तदा सर्वे करतलध्वनिं कृत्वा प्रशंसितवन्तः अहं सर्वोत्कृष्ट-अभिनयस्य (viii)----------अपि प्राप्तवती ।भवतः मातापित्रोः चरणेषु सादरम् (ix)--------।

भवदीया सखी

(x)----------

पुरस्कारम्,भोजपुरतः , सप्रेम, शुभकामनाभिः,कृतवती , प्रमोदे!, संस्कृतनाटक-प्रतियोगिता, पाण्डवानाम्, प्रणामः , प्रेरणा

3. मञ्जूषातः पदानि चित्वा कथां पूरयत- **½x10=5**

कस्मिंश्चित् राज्ये सुदामा नाम कश्चन i.----------आसीत् । सः अतीव दरिद्रः । प्रत्यहं भोजानार्थम् अपि तस्य गृहे ii---------न भवति स्म । तत् दृष्ट्वा सः सर्वदा चिन्तितो भवति । तदा तस्य भार्या iii---------- तम् अवदत् , यत् भवान् किञ्चिदिव वेदं संस्कृतं च जानाति । श्वः आरभ्य अस्य ग्रामस्य iv---------- आहूय सरलं वेदभागं तथा व्यावहारिकसंस्कृतं पाठयतु । प्रथमं वयं न्यूनम् एव शुल्कं स्थापयामः । पश्चात् v--------- स्थितिं दृष्ट्वा चिन्तयामः । पत्न्याः तत् वचनं आकर्ण्य आशान्वितः सुदामा स्वबुद्ध्यनसारं पाठम् vi---------- । शनैः शनैः तस्य अध्यापनेन छात्राः vii----------अभवन् । viii------- समयोचितबुद्ध्या सन्तुष्टः सुदामा सुखेन कालं नयति स्म । अतःये संस्कृतं वेदं वा अपठन् तेषां कृते ix---------- ----प्रायः क्लेशः न भवति इति अस्याः x.---------नीतिः ।

छात्राणां ,जीवने, भोजनसामग्री, सहधर्मिण्याः,बालकान् , कथायाः,आरब्धवान्, विप्रः, सौदामिनी, आकार्षिताः

प्र.4. अधोलिखितानां वाक्यानां संस्कृतभाषया अनुवादं कुरुत **1x5= 5**

1. किसी वन में अनेक पशु रहते थे ।
2. पशुओं का राजा शेर रोगपीडित था ।
3. शृगाल ने चिकित्सा का उपाय बताया ।
4. रोग की शान्ति उँट के रक्तपान से होगी ।
5. शेर ने उसका रक्तपान किया ।

ग. पठितावबोधनम् = 15

प्र.5. अधोलिखितं गद्यांशं पठित्वा प्रश्नान् उत्तरत

महाराजस्य बहु सन्तोषोऽभवत् । एवं परितुष्टः राजा पारितोषिकत्वेन बालाय सताम्बूलम् उत्तरीयवस्त्रं दत्वा आह – हे वत्स! त्वं मेधावी असि। सुष्ठु सङ्गीतं शिक्षित्वा सम्यक् गातुं भवान् अभ्यस्यतु । इतोऽप्यधिकं पारितोषिकं भवते वयं दास्याम: इति ।

अ - एकपदेन उत्तरत ½ x 2 = 1

1 कस्य सन्तोष: अभवत् ?

2 राजा बालाय किम् अयच्छत् ?

आ - पूर्णवाक्येन उत्तरत 2x1 = 2

1 राजा बालकं किम् आह ?

2 राजा बालकाय अधिकं किं दातुम् इच्छति स्म ?

6. अधोलिखितं श्लोकं पठित्वा प्रश्नान् उत्तरत

सन्नियम्येन्द्रियग्रामं सर्वत्र् समबुद्धय:।

ते प्राप्नुवन्ति मामेव सर्वभूतहिते रता: ॥

क्लेशोऽधिकतरस्तेषामव्यक्तासक्तचेतसाम् ।

अव्यक्ता हि गतिर्दु:खं देहवद्भिरिवाप्यते ॥

अ - एकपदेन उत्तरत **½ x2=1**

1. मामेव के प्राप्नुवन्ति ?
2. केषाम् अधिकतर: क्लेश:?

आ - पूर्णवाक्येन उत्तरत **2x1=2**

सर्वभूतहितेरता: समबुद्धय: किं नियम्य मां प्राप्नुवन्ति?

7. अधोलिखितं नाट्यांशं पठित्वा प्रश्नान् उत्तरत

तन्तुवाय - श्रेष्ठिन् ! गृहाण पटम् ।

श्रेष्ठी - (भ्रूसंज्ञया) अयं क्रेष्यति, नाहं क्रेतुं शक्नोमि।

तन्तुवाय: - कस्मात्?

श्रेष्ठी - अस्य समीपे राज्ञ: प्रमाणपत्रम् अयमेव क्रेष्यति, नापर: ।

वै. गौराङ्ग: -इत आगच्छ (तन्तुवायमाह्वयति प्रमाणपत्रं दर्शयति।पटं गृह्णाति)

गृहाणेमाश्चत्वारिंशन्मुद्रा: ।(इति मुद्रा ददाति)

अ - एकपदेन उत्तरत **½x2 =1**

1. नाहं क्रेतुं शक्नोमि इति क: कथयति ?

2. कस्य समीपे राज्ञ: प्रमाणपत्रम् ?

आ - पूर्णवाक्येन उत्तरत **2x1=2**

1. गौराङ्ग: कति मुद्रा: ददाति?

8. अधोलिखित भावार्थयोः रिक्तस्थानपूर्तिं कुरुत **½x4 =2**

1 ये तु सर्वाणि कर्माणि मयि संन्यस्य मत्परा:।

अनन्येनैव योगेन मां ध्यायन्त उपासते ॥

ये तु ---------- कर्माणि ---------- संन्यस्य मत्परा: ---------- अनन्येन योगेन ----------

-एव चिन्तयन्त: उपासते ।

माम्	सन्त:	ईश्वरे	सर्वाणि

9. अधोलिखित श्लोकानाम् अन्वये रिक्तस्थानपूर्तिं कुरुत **½ x4=2**

1 तेषामहं समुद्धर्ता मृत्युसंसारसागरात्

भवामि नचिरात् पार्थ मय्यावेशितचेतसाम् ॥

अन्वयः = हे ---------! मयि----------तेषाम् ----------,

मृत्युसंसारसागरात् नचिरात् ---------- भवामि॥

समुद्धर्ता	आवेशितचेतसाम्	पार्थ	अहं

10. रेखाङ्कित पदानाम् उचितम् अर्थं चित्वा लिखत **½ x4= 2**

1 सङ्गीतं गायामीति **व्याहरत्** । ---------- (अब्रवीत् / अश्रुणोत् / अदर्शत्)

2 **सत्वरं** त्रिचतुरांस्तन्तुवायान् समानय ।---------- (नित्यम् /मन्दम्/ क्षिप्रम्)

3 बालक: भयेन कम्पते **क्रन्दति** च। ---------- (आस्वादयति/ रोदिति/ कूर्दति)

4 केन प्रकारेण **मिथ्या** कथयसि । ---------- (आनन्देन/ अगर्हितं / असत्यं)

०००००००००

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER – TERM- II SESSION 2021-22

Class: XI **Max.Marks: 35**

Subject: Physics **Time: 90 minutes**

General Instructions:

(i) **There are 12 questions in all. All questions are compulsory.**

(ii) **This question paper has three sections: Section A, Section B and Section C.**

(iii) **Section A contains three questions of two marks each, Section B contains eight questions of three marks each, Section C contains one case study-based question of five marks.**

(iv) **There is no overall choice. However, an internal choice has been provided in one question of two marks and two questions of three marks. You have to attempt only one of the choices in such questions.**

(v) **You may use log tables if necessary but use of calculator is not allowed.**

SECTION A

Q1.Define Simple Harmonic Motion. What are its characteristics? 2m

Q2.(A) A wave travelling along a string is described by equation y (x,t) = 0.05 sin (40 x – 5t) in which the numerical constants are in SI units. Calculate the (a) amplitude, (b)wavelength (c) time period and (d) frequency of wave.

(OR)

Q2.(B) For the travelling wave, y = 2.0 cos 2∏ (10t – 0.0080x +0.35), where x and y are in cm and t in s. What is the phase difference between oscillatory motion at two points separated by a distance of (i) 4m, (ii)0.5m, (iii) λ/2 , (iv) 3λ/4? 2m

Q3. A child blows air at one end of a straw and slowly cuts pieces of the straw from the other end. What will be the outcome that will be observed? 2m

SECTION B

Q4.(I) State Hook's law. (ii)Plot Stress Versus Strain curve for a metal wire and depict on the graph (a)Elastic limit and (b) yield point 3m

Q5.(i) State Pascal's law. (ii) Explain the working of hydraulic lift. (iii) Find out the height of atmosphere if the density of the atmosphere at sea level is 1.29 kg/m^3. Assume that it does not change with altitude
3m

Q6.Define Cp and Cv . Derive a relation between them
3m

Q7(A)Assume that the thermal conductivity of copper is four time that of brass. Two rods of copper and brass of the same length, and cross-section are joined end to end.The free end of copper rod is kept at 0^0C and the free end of the brass rod is kept at 100^0C. Calculate the temperature at the junction of the two rods at equilibrium, (Ignore radiation losses)

(OR)

Q7(B)A brass rod of length 50 cm and diameter 3 mm is joined to a steel rod of the same length and diameter. What is the change in length of the combined rod at 250^0C,if the original lengths are at 40^0C? Is there a 'thermal stress' developed at the junction? The ends of the rod are free to expand (Coefficient of linear expansion of brass = 2×10^{-5} K^{-1}, that of steel= 1.2×10^{-5} K^{-1}) 3m

Q8. On the basis of kinetic theory, derive an expression for the pressure exerted by an ideal gas. 3m

Q9.Show that for small oscillation, the motion of a simple pendulum is simple harmonic. Derive an expression for its time period. 3m

Q10.(A) Prove that the slope of P-V graph for an adiabatic process is ϒ times that of the isothermal process.

(OR)

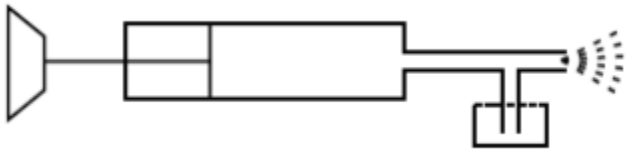
Q10(B). What are reversible and irreversible processes? Explain giving one example of each. 3m

Q11.Find the total energy of the particle executing S.H.M and show graphically the variation of P.E and K.E with time in S.H.M. 3m

Q12. SECTION C- CASE STUDY BASED

Read the passage given below and answer:

A spray gun is shown in the figure where a piston pushes air out of a nozzle. A thin tube of uniform cross section is connected to the nozzle. The other end of the tube is in a small liquid container. As the piston pushes air through the nozzle, the liquid from the container rises into the nozzle and is sprayed out. For the spray gun shown, the radii of the piston and the nozzle are 20 mm and 1 mm respectively. The upper end of the container is open to the atmosphere.



(a) **Write the principle on which the spray gun works.**
(i) Stoke's law (ii) Pascal's principle (iii) Bernoulli's principle (iv) Poiseullie's principle 1mark

(b) **To keep a paper horizontal you should below over not under it.**
(i)pressure below the paper becomes lower(ii)pressure below the paper becomes higher (iii) pressure at bottom of paper and top are equal (iv) none of these. 1mark

(c) **If the piston is pushed at a speed of 5 ms^{-1} , the air comes out of the nozzle with a speed of**
(i) 2 m/s (ii) 4 m/s (iii) 6 m/s (iv) 8m/s 1mark

d) If the density of air is ρ_a and that of the liquid ρ_l, for a given piston speed the rate (volume per unit time) at which the liquid is sprayed will be proportional to ----------

(i) $\sqrt{\frac{\rho a}{\rho l}}$ **(ii)** $\sqrt{\rho a \rho l}$ **(iii)** $\sqrt{\frac{\rho l}{\rho a}}$ **(iv)** ρ_l **1 mark**

(e)Name any other device using the same principle.

(i) Aero foil **(ii) Hydraulic brake**
(iii) Hydraulic lift **(iv) Barometer** **1 mark**

KENDRIYA VIDYALAYA SANGATHAN BENGALARU REGION
SAMPLE QUESTION PAPER-TERM -11:SESSION 2021-22

CLASS:11 **MAX.MARKS:35**
SUBJECT:PHYSICS **TIME:2 HOURS**

GENERAL INSTRUCTIONS:

1) **There are 12 questions in all. All questions are compulsory.**
2) **This question paper has three sections. Section A, Section B and Section C.**
3) **Section A contains three questions of two marks each, section B contains eight questions of three marks each, Section C contains one case based study question of five marks.**
4) **There is no overall choice. However an internal choice has been given in one question of two marks and two questions of three marks. You have to attempt only one of the choices in such questions.**
5) **You may use log tables if necessary but use of calculator is not allowed.**

SECTION A

Q1) What is the basic condition for the motion of a particle to be in S.H.M ?

Q2) A steel wire 0.72 m long has a mass of 5.0*10^-3 kg. If the wire is under a tension of 60 N, what is the speed of transverse waves on the wire?

Q3) What are beats? What is beat frequency?

OR

What is the essential condition for the formation of beats. A tuning fork of unknown frequency gives 4 beats with a tunif fork of frequency 319 Hz. It gives the same number of beats on filing.Find the unknown frequency.

SECTION B

Q4) What is meant by elastic potential energy ?.Derive the expression for the potential energy of a stretched wire.

Q5)Derive an expression for the excess pressure inside a liquid drop.

OR

Derive an expression for the rise of liquid in a capillary tube and show that the height of the liquid column is inversely proportional to the radius of the tube.

Q 6.) A 0.2 kg of mass hangs at the end of a spring. When 0.02 kg more mass is added to the end of the spring, it stretches by 7cm more. If the 0.02 kg mass is removed, what will be the period of vibration of the system.

OR

The pan attached to a spring balance has a mass of 1kg. A weight of 2kg when placed on the pan stretches the spring by 10cms. What is the frequency with which the empty pan will oscillate.

Q 7.)Name the different modes of heat transfer.

Explain why ice is packed in saw dust.

Q 8.)Applying the first law of thermodynamics , obtain the relation between the two specific heats of a gas.

Q 9.)Show that the average K.E of a gas molecule is directly proportional to the temperature of the gas. Hence give the kinetic interpretation of temperature.

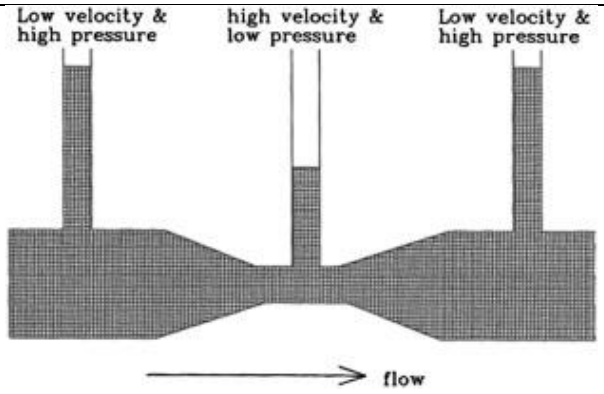
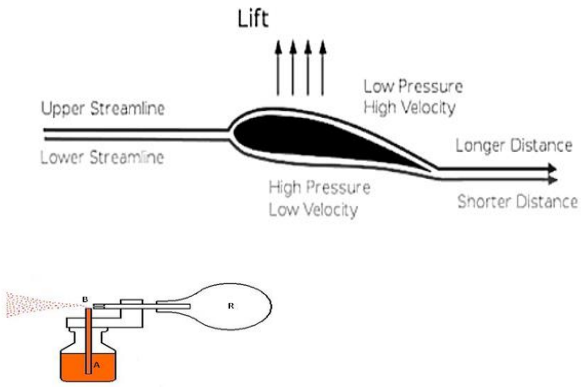
Q10.)Show that for small oscillations the motion of a simple pendulam is simple harmonic. Derive an expression for its time period.

Q11.)What is latent heat?Give its S.I unit.Explain latent heat of fusion and latent heat of vapourisation.

SECTION C

Q12.) Case Study: Bernoulli's Principle

Bernoulli's principle is valid for any fluid, it is especially important to fluids moving at a high velocity. Its principle is the basis of venturi scrubbers, thermo compressors, aspirators, and other devices where fluids are moving at high velocities. The sum of pressure (potential energy) and kinetic energy in any system is constant i.e., energy is conserved if frictional losses are ignored. Thus, when a fluid flows through areas of different diameters, there is a change in velocity. The change in velocity leads to a change in kinetic energy and so the pressure changes as well. A decreased pipe diameter means an increase in velocity and kinetic energy and a decrease in pressure.

1	Bernoulli's Principle is a consequence of conservation of (a) Velocity (b) Momentum (c) Energy (d)Mass
2	A fluid is flowing through a horizontal pipe. When the pipe is constricted, then, (a) Velocity increases and pressure decreases (b) Velocity decreases, pressure increases (c) Both velocity and pressure increase (d)Both velocity and pressure decrease
3	In which of the following types of flow is the Bernoulli's theorem strictly applicable? (a) Streamlined and rotational (b) Turbulent and irrotational (c) Turbulent and irrotational (d)Streamlined and irrotational
4	The weight of an aero plane flying in air is balanced by (a)Upthrust of the air which will be equal to the weight of the air having the same volume as the plane (b) Force due to the pressure difference between the upper and lower surfaces of the wings, created by different air speeds on the surface (c) Vertical component of the thrust created by air currents striking the lower surface of the wings (d) Force due to the reaction of gases ejected by the revolving propeller
5	The Working of an atomizer depends upon (a) Bernoulli's theorem (b) Boyle's law (c) Archimedes principle (d) Newton's law of motions

SAMPLE QUESTION PAPER

CLASS XI (PHYSICS THEORY) TERM II SESSION 2021 - 22

MM: 35 **TIME: 2 Hours**

General Instructions:

(i) There are 12 questions in all. All questions are compulsory.

(ii) This question paper has three sections: Section A, Section B and Section C.

(iii) Section A contains three questions of two marks each, Section B contains eight questions of three marks each, Section C contains one case study-based question of five marks.

(iv)There is no overall choice. However, an internal choice has been provided in one question of two marks and two questions of three marks. You have to attempt only one of the choices in such questions.

(v) You may use log tables if necessary but use of calculator is not allowed.

Section-A

Q1) a) What is the frequency of oscillation of a simple pendulum mounted in a cabin that is freely falling under gravity?

b) The relation between the acceleration 'a' and displacement 'y' of a particle executing SHM is a= - (p/q) y, where p and q are constants. What will be the time period T of the particle?

Q2) a) when are stationary waves produced?

b) What is the distance between a node and the nearest antinode?

c) Give one use of beat phenomenon.

d) A harmonic wave travelling in a medium has a period T and wavelength λ. How are λ and T related?

Q3) Write the equation of a progressive wave propagating along positive x-direction, whose amplitude is 5cm, frequency 250Hz and velocity 500ms^{-1}.

OR

A wave travelling along a string is described by y(x,t)=0.005sin(80.0x-3.0t) in which the numerical constants are in SI units. Calculate (a) Amplitude (b) Wavelength and time period of the wave.

Section-B

Q4)a)State Hook's law in elasticity.

b) Draw Stress-Strain graph for an elastic material hence mark the following points on the graph.(1) Elastic region (2) elastic limit (3) yielding point and (4) breaking stress

Q **5**) State and prove Bernoulli's theorem for ideal fluid flowing through a pipe of varying cross section.

Q6) Give reason for the following

a) A small gap is left between any two rails in a railway track

b) Aquatic animals survive even at sub zero temperatures in frozen lakes and ponds.

c) It is difficult to cook food in higher altitudes.

Q**7**) a) What is principle of calorimetry?

b) When 0.15kg of ice of 0^{o}C is mixed with0.3kg of water at 50^{o}C in a container, the resulting temperature is 6.7^{o}C .Calculate the heat of fusion of ice.

(Given C_{water} =4186 3Jkg^{-1}K^{-1})

Q **8**) State First law of thermodynamics. On its basis of prove the relationship connecting the two principal specific heats C_p and C_v for an ideal gas.

Q9) An oxygen cylinder of volume 30 litres has an initial gauge pressure of 15 atmos and a temperature of 27^{o}C.After some oxygen is withdrawn from the cylinder, the gauge pressure drops to 11atmos and its temperature drops to 17 ^{o}C. Estimate the mass of oxygen taken out of the cylinder. Given R=8.3Jmol^{-1}K^{-1}

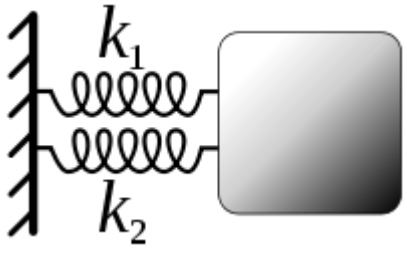
OR

What is meant by degree of freedom? Find the degree of freedom for the following

1) H_2O 2) CO_2 3) N_2 4) NH_3

Q10).A) Define Simple Harmonic motion.

b) Two springs having spring constants k_1 and k_2 are connected in parallel as shown. The mass displaced from its equilibrium position and released .Find the expression for resultant frequency of oscillation.



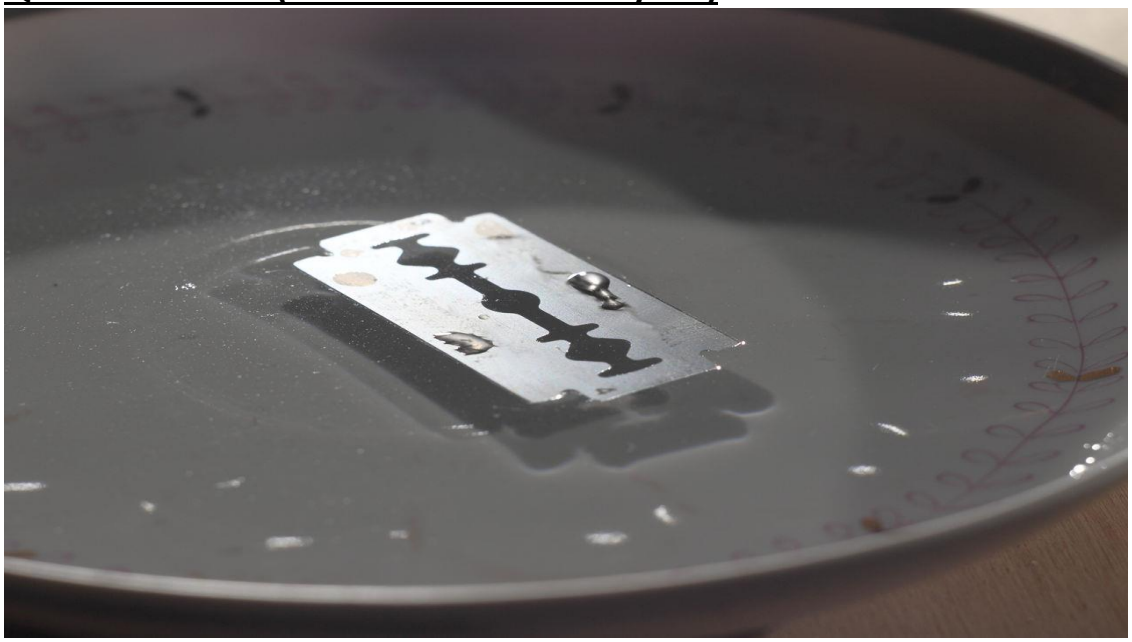
Q11).a)Write an expression for the Kinetic and Potential energy of a particle executing SHM. Hence find an expression its total energy.

b) Also draw the graph showing the variation of kinetic energy, potential energy and total energy as a function of displacement x from the mean position.

OR

What are free, forced and damped oscillations. Give one example for each.

Q12. CASE STUDY(Surface tension in daily life)



Surface tension is the tendency of liquid surfaces at rest to shrink into the minimum surface area possible. Surface tension is what allows objects with a higher density than water such as razor blades and insects (e.g. water striders) to float on a water surface without becoming even partly submerged. At liquid–air interfaces, surface tension results from the greater attraction of liquid molecules to each other (due to cohesion) than to the molecules in the air (due to adhesion)

Because of the relatively high attraction of water molecules to each other through a web of hydrogen bonds, water has a higher surface tension 72.8 millinewtons (mN) per meter at 20 °C) than most other liquids. Surface tension is an important factor in the phenomenon of capillarity.

Surface tension has the dimension of force per unit length, or of energy per unit area. The two are equivalent, but when referring to energy per unit of area, it is common to use the term surface energy, which is a more general term in the sense that it applies also to solids.

Based on the above facts, answer the following questions:

1) A drop of oil is placed on the surface of the water. Which of the following statements is correct?

a) It will remain on it as a sphere

b) It will spread as a thin layer

c) It will partly be as spherical droplets and partly as thin films

d) It will float at the distorted drop on the water surface.

2)Unit of surface tension is

a)Nm^2 b) dyne per cm c) Ncm^{-2} d) dyne per m^2

3) Surface tension of water can be reduced by

a) By decreasing its temperature

b) By adding salt to it

c) By adding detergent to it

d) All the above

4) Which of the following is an application of surface tension

a) Slow motion of honey

b) Evaporation of water from its surface

c) Floating of insects on the surface of water

d) Rise of water through a capillary tube

5) Which of the following liquids have a convex meniscus

a) Water kept in a glass beaker

b) Mercury inside a thermometer

c) Water rising inside a capillary tube

d) Milk kept in a steel vessel

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER - TERM – II: SESSION 2021-22

Class: XI Max. Marks:35

Subject: CHEMISTRY Time:2Hrs

GENERAL INSTRUCTIONS:

Read the following instructions carefully.

1. There are 12 questions in this question paper with internal choice.
2. SECTION A - Q. No. 1 to 3 are very short answer questions carrying 2 marks each.
3. SECTION B - Q. No. 4 to 11 are short answer questions carrying 3 marks each.
4. SECTION C- Q. No. 12 is case based question carrying 5 marks.
5. All questions are compulsory.
6. Use of log tables and calculators is not allowed.

SECTION A

Q1 The value of Kc for the reaction $2A \rightleftharpoons B + C$ is 2×10^{-3}. At a given time, the composition of reaction mixture is [A] = [B] = [C] = 3×10^{-4} M. In which direction the reaction will proceed? 2

Q2 Beryllium and magnesium do not give colour to flame whereas other alkaline earth metals do so. Why? 2

Q3 Explain the following 2

i)Solubility Product

ii)Common ion effect

SECTION B

Q4 a)Convert the following 3

i)Phenol to Benzene

ii)Benzene to Benzene hexachloride

b) Draw conformation of ethane by Newmann Projection.

OR

What are the necessary conditions for any system to be aromatic?

Q5 a)PCl_5,PCl_3 and Cl_2 are at equilibrium at 500 K and having concentration 1.59M PCl_3,1.59M Cl_2 and 1.41 M PCl_5.CalculateKc for the reaction, $PCl_5 \rightleftharpoons PCl_3 + Cl_2$ 3

b)Write the conjugate acids for H_2O & NH_3

OR

a)Write the relationship between Kp and Kc for the gaseous reaction : $N_2 + O_2 \rightleftharpoons 2NO$

b)Describe the effect of:

i)addition of H2 ii)removal of CO

on the equilibrium of the reaction : $2H_2\,(g) + CO(g) \rightleftharpoons CH_3OH\,(g)$

Q6 a) Write balanced equations to show the amphoteric character of Aluminium. 2

b) Boron has unusually high melting point. Give reason

Q7 In what ways lithium shows similarities to magnesium in its chemical behaviour? Write any three similarities. 3

Q8 Give reasons: 3

(a) Boron halides form an additional compound with NH_3.

(b) The tendency for catenation decreases down the group in Group 14.

(c) PbO_2 is a stronger oxidizing agent than SnO_2.

Q9 Addition of HBr to propene yields 2-bromopropane. Explain and give mechanism. 3

OR

Explain the following reactions with an example

a.Wurtz reaction

b.Friedel Craft Acylation

c.Beta Elimination

Q10 i)An alkene 'A' on ozonolysis gives a mixture of ethanal and pentan-3-one. Write the structure and IUPAC name of 'A'. 1+2

ii) Draw the cis- and trans-structures for hex-2-ene. Which isomer will have higher boiling point ?

Q11 a) A gas at 300 K exerts a pressure of 720 mm Hg and occupies a volume of 100 ml. Calculate the pressure of the gas which occupies a volume of 84 mL at the same temperature. 3

b) Write the two assumptions of kinetic molecular theory of gases that do not hold good under all conditions.

OR

a) Calculate the temperature of 4.0 moles of a gas occupying 5 dm^3 at 3.32 bar (R = 0.083 bar dm^3 K^{-1} mol^{-1})

b) In terms of Charle's Law explain why -273^0 C is the lowest temperature?

SECTION C

Q12 Chemical energy stored by molecules can be released as heat during chemical reactions when a fuel like methane, cooking gas or coal burns in air. The chemical energy may also be used to do mechanical work when a fuel burns in an engine or to provide electrical energy through a galvanic cell like dry cell. The study of these energy transformations forms the subject matter of thermodynamics. Thermodynamics deals with energy changes in chemical or physical processes and enables us to study these changes quantitatively and to make useful predictions. For these purposes, we divide the universe into the system and the surroundings. Chemical or physical processes lead to evolution or absorption of heat (q), part of which may be converted into work (w). These quantities are related through the first law of thermodynamics. The heat absorbed at constant volume is equal to change in the internal energy i.e., ΔU = q V. But most of chemical reactions are carried out not at constant volume, but in flasks or test tubes under constant atmospheric pressure is equal to change in the enthalpy, ΔH = qp , heat absorbed by the system at constant pressure. There are varieties of enthalpy changes. Changes of phase such as melting, vaporization and sublimation usually occur at constant temperature and can be characterized by enthalpy changes which are always positive. Enthalpy of formation, combustion and other enthalpy changes can be calculated using Hess's law. 5

i) In a process, 701 J of heat is absorbed by a system and 394 J of work is done by the system. What is the change in internal energy for the process?

ii) Define extensive properties. Give one example.

iii) How enthalpy change and internal energy change are related for gaseous reaction?

iv) Calculate the standard enthalpy of formation of $CH_3OH(l)$ from the following data:

$CH_3OH\ (l) + 3/2\ O_2\ (g) \rightarrow CO_2\ (g) + 2H_2O(l)$; $\Delta rH^0 = -726$ kJ mol–1

$C(graphite) + O_2\ (g) \rightarrow CO_2\ (g)$; $\Delta_c H^0 = -393$ kJ mol–1

$H_2\ (g) + 1/2\ O_2\ (g) \rightarrow H_2O(l)$; $\Delta_f H^0 = -286$ kJ mol–1

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KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER - TERM – II: SESSION 2021-22

Class : XI **Max. Marks: 35**

Subject : CHEMISTRY **Time: 2 HRS**

GENERAL INSTRUCTIONS:

Read the following instructions carefully.

1. There are 12 questions in this question paper with internal choice.
2. SECTION A - Q. No. 1 to 3 are very short answer questions carrying 2 marks each.
3. SECTION B - Q. No. 4 to 11 are short answer questions carrying 3 marks each.
4. SECTION C- Q. No. 12 is case based question carrying 5 marks.
5. All questions are compulsory.
6. Use of log tables and calculators is not allowed.
7. This question paper contains 4 pages.

SECTION A

1. Calculate pH when 9.8 g of H_2SO_4 is dissolved in 2 L solution. 2

2. What happens when (write equations involved)
   a) $LiNO_3$ is heated
   b) KNO_3 is heated (1+1)

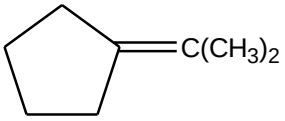
3. The solubility product A_2B is 32 X 10^{-9}. Calculate its solubility. 2

SECTION B

4. a) Arrange the following compounds in decreasing order of their reactivity towards an electrophile: toluene, 4- Nitrotoluene, 2,4-Dinitrotoluene
   (b) Convert tert- Butyl bromide to isobutyl bromide.
   (c) But-1-yne liberates hydrogen gas on reaction with sodium metal while But-2-yne does not. Explain. (1+1+1)

OR

4. a)Write the structure of the products of ozonolysis of -



(b) Explain the mechanism of Nitration of benzene.

(1+2)

5. (a) Beryllium and magnesium do not give colour to flame whereas other alkaline earth metals do so. Why ?
(b) Compare reducing nature of Lithium and Sodium with proper explanation. (1+2)

OR

5. (a) Name one chloride of alkaline earth metals which is covalent and soluble in ethanol.
(b) Give reasons:
(i) Li_2CO_3 decomposes at a lower temperature than Na_2CO_3.
(ii) $BeSO_4$ is soluble in water but $BaSO_4$ is not. (1+2)

6. Explain
(a) The +1 oxidation state in group 13 and +2 oxidation state in group 14 becomes more and more stable with increasing atomic number.
(b) Gallium has higher ionization enthalpy than aluminium.
(c) Aluminium forms $[AlF_6]^{3-}$ ion but boron does not form $[BF_6]^{3-}$ ion.
(1+1+1)

7. What happens when: (give complete chemical equations)-
(a)Benzene reacts with chlorine in presence of UV light at 500K.
(b)Ethyne is heated in an iron tube at 873K.
(c) Propene reacts with cold concentrated sulphuric acid. (1+1+1)

8. Give reasons :
(a) Conc. HNO_3 can be transported in aluminium container.
(b) A mixture of dilute NaOH and aluminium pieces is used to open drain.
(c) Graphite is used as lubricant.
(1+1+1)

9. (a) Write the conjugate base for each of the following:
HSO_4^-, CH_3COOH
(b) pH of 0.08 mol dm^{-3} HOCl solution is 2.85. Calculate its ionisation constant.(antilog of -2.85 = 1.41 $X10^{-3}$) (1+2)

OR

9. (a) State Le Chatelier's principle.
(b) Formation of ammonia by the Haber's process is an exothermic reaction. Explain the effect of –
(i) increasing temperature
(ii) decreasing pressure ,
on the yield of ammonia. (1+2)

10. How will you convert
(a) benzene to m-nitrochlorobenzene
(b) benzene to p – nitrotoluene
(c) phenol to acetophenone? (1+1+1)

11. Write van der Waals equation for n moles of gas and write the significance of van der Waal's constants a and b (3)

OR

11. a) Using the equation of state pV=nRT; show that at a given temperature density of a gas is proportional to gas pressure p.
(b) Calculate the weight of CH_4 in a 9 litres cylinder at 16 atm and 27 ^{0}C. (1+2)

SECTION C

12. Enthalpy is a thermodynamic property of a system. It is the sum of the internal energy added to the product of the pressure and volume of the system. It reflects the capacity to do non-mechanical work and the capacity to release heat. Enthalpy is denoted as **H**

The standard enthalpy of reaction is the enthalpy change for a reaction when all the participating substances are in their standard states. The standard state of a substance at a specified temperature is its pure form at 1 bar.

The standard enthalpy change for the formation of one mole of a compound from its elements in their most

stable states of aggregation (also known as reference states) is called Standard Molar Enthalpy of Formation. Its symbol is $\Delta_f H^0$, where the subscript ' f ' indicates that one mole of the compound in question has been formed in its standard state from its elements in their most stable states of aggregation.

(a) State any one condition in which change in enthalpy is equal to change in internal energy.

(b) The enthalpy of atomization for the reaction :
CH_4 (g) → C(g) + 4H (g) is 1665 KJ/mole
What is the bond energy of C-H bond ?

(c)) Standard molar enthalpy of formation, $\Delta_f H^0$ is just a special case of enthalpy of reaction, $\Delta_r H^0$. Is the $\Delta_r H^0$ for the following reaction same as $\Delta_f H^0$?
$CaO(s) + CO_2(g) \rightarrow CaCO_3(s)$; $\Delta_f H^0 = -178.3$ kJ mol^{-1}.
Give reason for your answer.

(d)The combustion of benzene *(l)* gives CO_2(g) and H_2O *(l)* .Given that heat of combustion at constant volume is -3263.9 kJ/mole at 25 °C, Calculate heat of combustion in kJ/mol at constant pressure.

OR

(d) Calculate the enthalpy of the reaction:
$N_2O_4(g) + 3CO(g) \text{----->} N_2Og) + 3CO_2(g)$
Given that; $\Delta_f H^0 CO(g) = -110$ kJ mol^{-1} ,
$\Delta_f HCO_2(g) = -393$ kJ mol^{-1} , $\Delta_f HN_2O(g) = 81$ kJmol^{-1};
$\Delta_f N_2O_4(g) = 9.7$ kJmol^{-1}

(1+1+1+2)

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER - TERM – II: SESSION 2021-22

Class : XI **Max. Marks:35**

Subject : CHEMISTRY **Time: 2hrs**

GENERAL INSTRUCTIONS:

Read the following instructions carefully.

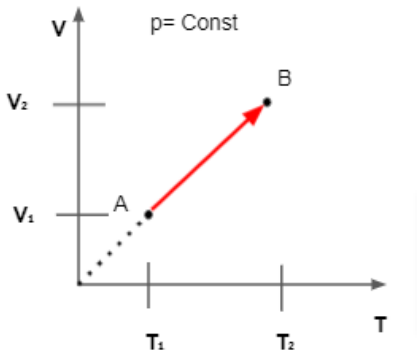
1. There are 12 questions in this question paper with internal choice.
2. **SECTION A - Q. No. 1 to 3** are very short answer questions carrying 2 marks each.
3. **SECTION B - Q. No. 4 to 11** are short answer questions carrying 3 marks each.
4. **SECTION C- Q. No. 12** is case based question carrying 5 marks.
5. All questions are compulsory.

SECTION A

1. Write an expression of K_c for the following reaction: (2)
   $CaCO_3(s) \rightleftharpoons CaO(s) + CO_2(g)$
   What is the effect of increasing concentration of CO_2 on direction of reaction?
2. Name an alkali metal carbonate which is thermally unstable and why? Give its decomposition reaction. (2)
3. The ionization of hydrochloric acid in water is given below:
   $HCl(aq) + H_2O(l) \rightleftharpoons H_3O^+(aq) + Cl^-(aq)$
   Label two conjugate acid-base pairs in this ionization. (2)

SECTION B

4. (a)Which gas law is shown by the following graph



(b) Calculate the temperature of 4.0 mol of gas occupying 5 dm^3 at 3.32 bar. [R= 0.083 bar $dm^3 mol^{-1} K$]. (1+2)

OR

4 (a) A gas that follows Boyle's law, Charle's law and Avogadro's law is called an ideal gas. Under what conditions a real gas would behave ideally?

(b) Name the intermolecular forces that exist in (i) HF (ii) I_2 (1+2)

5. (a) Write the correct order of reducing character of Group I elements.
   (b) Why are alkali metals strong reducing agents?
   (c) Name the alkali metal which shows diagonal relationship with magnesium. (1+1+1)
6. (a) Aluminum forms $[AlF_6]^{3-}$ whereas $[BF_6]^{3-}$ is not formed . Why?
   (b) C and Si are always tetravalent but Ge, Sn & Pb show divalency. Why?
   (c) Why do the heavier elements not form pπ−pπ multiple bonds as carbon does? (1+1+1)

OR

6. (a) Mention any two dissimilarities of boron with other elements of group-13.
   (b) Write the structural difference between diamond and graphite . (2+1)

7. (a) The dipole moment of trans 1,2-dichloroethane is less than the cis – isomer. Explain.
   (b) Ethyne is acidic in nature in comparison to ethene and ethane. Why is it so? (1+2)
8. (a) How will you convert benzene into
   (i) acetophenone?
   (ii) m-nitrochlorobenzene?
   (b) Write the structures of products obtained by ozonolysis of pent-2-ene. (2+1)
9. Calculate the pH value of a solution of 0.1 M NH_3 ($K_b = 1.8 \times 10^{-5}$). (3)

OR

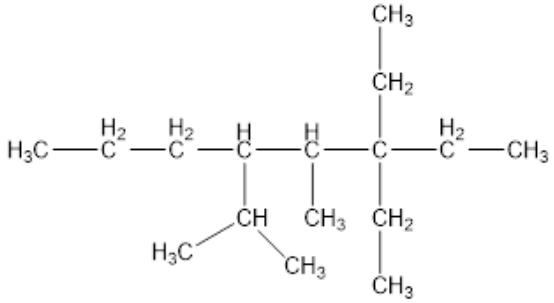
9. At 773 K, the equilibrium constant K_c for the reaction $N_2 (g) + 3H_2 (g) \rightleftharpoons 2NH_3 (g)$ is $6.02 \times 10^{-2}\ L^2\ mol^{-2}$. Calculate the value of K_p at the same temperature. (3)

10. Give reason.
    (a) Gallium has higher ionization enthalpy than Aluminium.

(b) Cone. $HN0_3$ can be transported in an aluminium container.

(c) TlCl is more stable than $TlCl_3$.

11. (a) Write the IUPAC of the following



(b) Give a brief account for the following statements:

(i) n-pentane has greater boiling point that iso-pentane.

(ii) Wurtz reaction is carried out in dry ether. (1+2)

OR

11. Write lUPAC names of the products obtained by addition reactions of HBr to Hex-1-ene (a) In the absence of Peroxide (b) In the presence of Peroxide. Write the reactions for both the cases. (3)

SECTION C

Read the passage given below and answer the questions that follow

12. The change in internal energy of a system is the sum of all the energy inputs and outputs to and from the system similarly to how all the deposits and withdrawals you make determine the changes in your bank balance." This is expressed mathematically as: $\Delta U = q+w$, where ΔU is the change in the internal energy, q is the heat added to the system, and w is the work done on the system.

According to the law of energy conservation, the change in internal energy is equal to the heat transferred to, less the work done by, the system. If the only work done is a change of volume at constant pressure, the enthalpy change is exactly equal to the heat transferred to the system. Entropy is very different from energy.

Entropy is not conserved but increases in all real processes. Reversible processes (such as in Carnot engines) are the processes in which the most heat transfer to work takes place and are also the ones that keep entropy constant. Thus we are led to make a connection between entropy and the availability of energy to do work.

(a) Define state function.

(b) What is the enthalpy of the formation of an element in its standard state?

(c) Neither q nor w is a state function but q+w is a state function. Explain.

(d) Calculate the standard entropy change for the reaction X ⇌ Y if the value of ΔH° = 28.40 kJ and equilibrium constant is 1.8 × 10-7 at 298 K and ΔrG° = 38.484 kJ.

OR

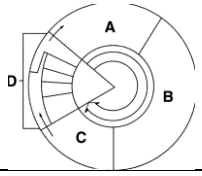
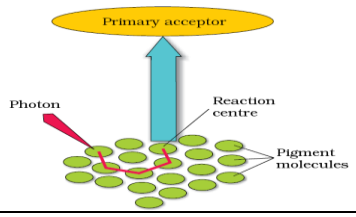
(d)Calculate the enthalpy of formation of carbon disulphide given that the enthalpy of combustion of it is 110.2 kJ mol^{-1} and those of sulphur and carbon are 297.4 kJ mol^{-1} and 394.5 kJ mol^{-1} respectively.

(1+1+1+2)

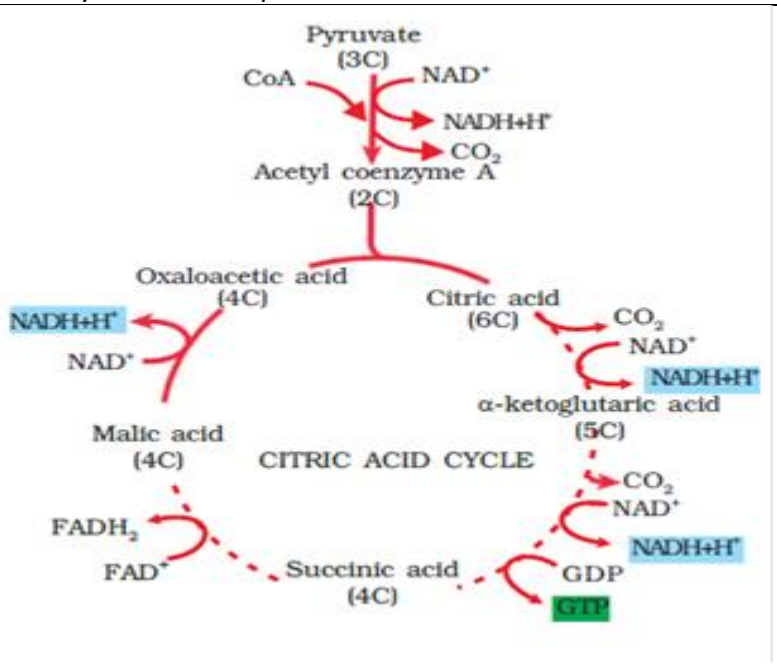
KENDRIYA VIDYALAYA SANGATHAN
BENGALURU REGION
SAMPLE QUESTION PAPER - TERM – II: SESSION 2021-22

Class : XI	**Max. Marks: 35**
Subject : BIOLOGY	**Time: 2 hours**

General Instructions:
i) All questions are compulsory.
ii) The question paper has three sections and 13 questions. All questions are compulsory.
iii) Section–A has 6 questions of 2 marks each; Section–B has 6 questions of 3 marks each; and Section–C has a case-based question of 5 marks.
iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
v) Wherever necessary, neat and properly labeled diagrams should be drawn.

Q. No.		Marks
	Section A	
1	A cell cycle is **a series of events that takes place in a cell as it grows and divides**. (a) Observe the following cell cycle diagram and identify the phases of it labeled as A,B,C, D. (b) In which phase replication of DNA occurs? If a cell has 20 chromosomes, what would be number of chromosomes at the end of this phase? 	**2**
2	Establishment of proton gradient essential for synthesis of ATP in the chloroplast during light reaction of photosynthesis. List two ways how more H^+ accumulation can occur within the thylakoid lumen? OR 	**2**

	a) Name the pigment molecule present in the reaction centre. b) What do you call the pigment molecules present around the reaction centre ? Write their functions	
3	Explain the role of the following in ETS: a) Complex I – NADH dehydrogenase b) Complex V- ATP synthase	**2**
4	How are gibberlins useful in agriculture to improve crop productivity? Give four points in support of your answer.	**2**
5	What is the role of Ca^{++} and ATP in muscle contraction?	**2**
6.	Following flow chart represents generation and conduction of nerve impulse in a neuron. Fill in the blanks at (A), (B),(C), and (D) • In a resting neuron, the neuroplasm contains high concentration of K+ and negatively charged proteins and low concentration of Na+. Whereas, the fluid outside the axon contains -------(A)------- ⇩ • The electrical potential difference across the membrane is resting potential. When the neuron is stimulated, at that point there is influx of Na+. There is reversal of polarity across the membrane. So, the membrane at the stimulated point is said to be -----(B)-------- ⇩ • The electrical potential difference across the plasma membrane at the stimulated site is called ---------©---- ⇩ • ---------(D)------- transports 3 Na+ outwards for 2 K+ into the cell for each ATP spent.	
SECTION B		
7	Nano cut her hair to shoulder length. After a month it grew upto a meter length. (a) Identify the cell division involved here. (b)explain about any two phases of it with the help of diagrams. (c) What would happen if the nuclear division is not followed by cytokinesis	**3**
8	In what different forms the CO_2 produced in the tissues is transported by blood to the lungs? Explain the steps of release of this CO_2 into the lungs for exhalation.	**3**
9	Diagrammatically depict cyclic events that take place in reduction of CO_2 to carbohydrate during biosynthetic phase of	**3**

	photosynthesis in C_4 plants	
10	 Observe the citric acid cycle above. Calculate the total number of ATP that can be produced when 4 pyruvate molecules are oxidised . Assume that all the NADH and FADH produced in this cycle are further oxidized to yield ATP OR Glucose is partially oxidized into pyruvate in cytoplasm of cell to produce ATP. Schematically represent various steps of glycolysis.	**3**
11	A patient is suffering from renal failure due to acute uremia and doctor advised for kidney transplantation. What method can you adopt to keep this patient alive until a suitable donor can be found? Explain it.	**3**
12	List 3 different groups of hormones secreted by adrenal cortex and write one major function of them Or Draw a standard ECG and explain the different segments in it	**3**
	SECTION C	
13	Biology teacher was discussing about the importance of knowing Human blood groups for blood transfusion purpose and Rh incompatibility. She records blood groups of her students and explains the reason for variation in blood groups. Teacher further presents a pregnant lady- Mrs Flory's case. She is Rh^{-ve} and her husband is Rh^{+ve}. Their first child Sweety is Rh^{+ve} .She wants to go for second pregnancy. Doctor tells her that her blood has to be screened for certain antibodies presence and destroy them	

	before she conceives for the second time. Other wise second baby would be deficient of RBC and anemic. (a) A person with 'O' blood group travelling on a bike with high speed , hit a divider on the road and seriously injured with lot of blood loss. He needed immediate blood transfusion. His father is B group and mother is A group. Can his parents donate blood ? Give reason (b) Which group blood is called Universal donor and why? (c) Explain Why the second baby of Mrs Florey would be anaemic and with less RBC . OR A team of doctors specialized in endocrinology came for a medical check up.They observed the children and in one child they found swollen neck and suffering from a disease. And they checked staff for blood glucose level and ADH hormone levels. Found certain abnormalities and advised the affected ones. (a) Can you explain, the disease that the child is suffering from and the reason behind it? What effect does this condition have on pregnancy? (b) Doctors found that hypoglycaemic and hyperglycaemic conditions in the staff ? What do they mean? Which hormones cause these conditions and how? (c) Write source gland and function of ADH ?	

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KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER - TERM – II: SESSION 2021-22

Class: XI **Max. Marks: 35**

Subject: BIOLOGY **Time:2hours**

General Instructions:

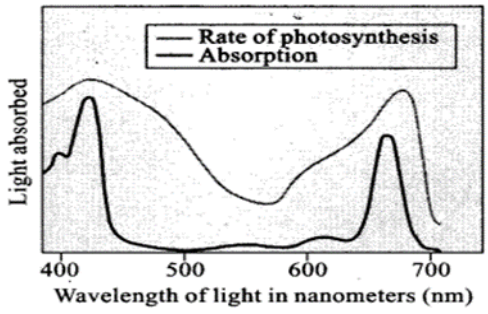
i) All questions are compulsory.

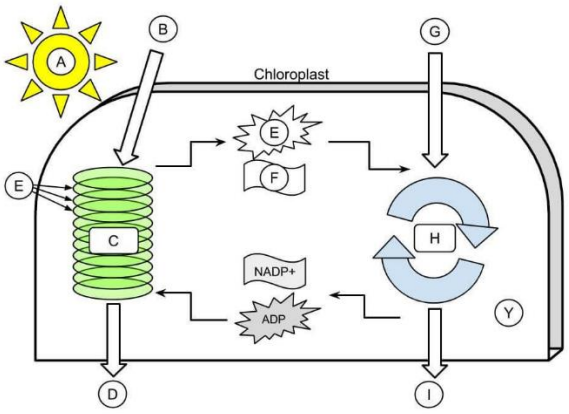
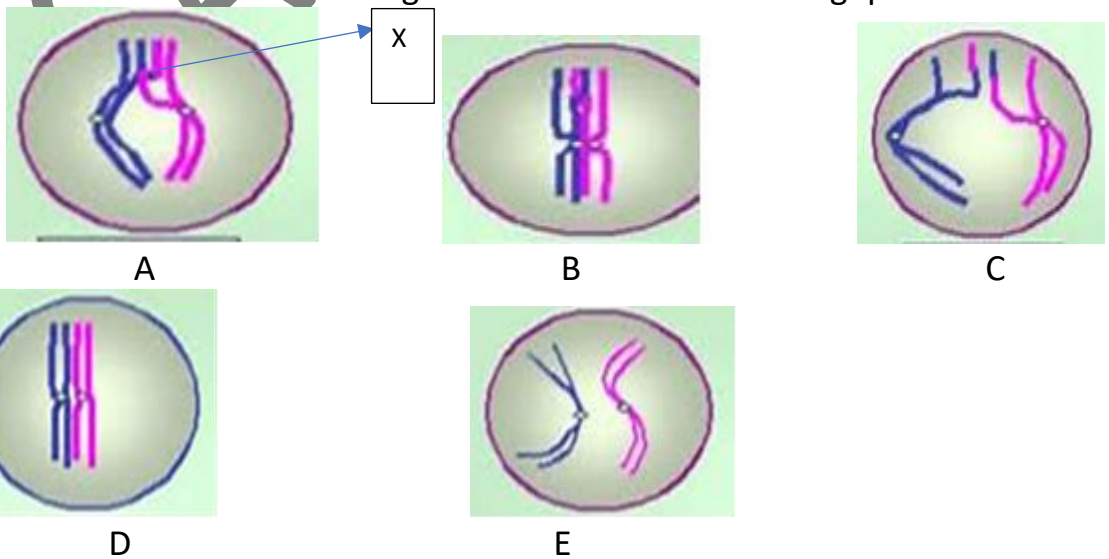
ii) The question paper has three sections and 13 questions. All questions are compulsory.

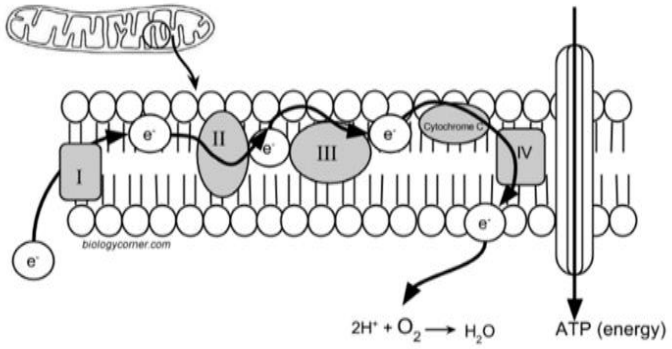
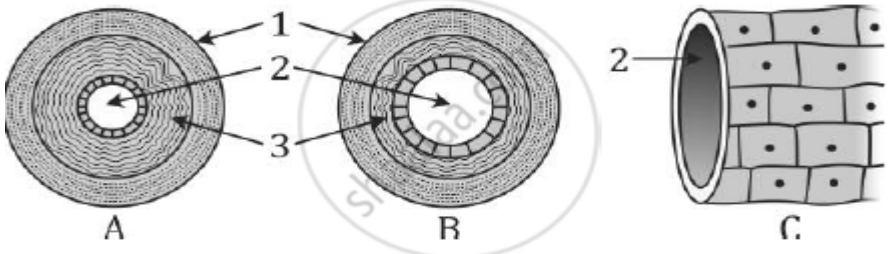
iii) Section–A has 6 questions of 2 marks each; Section–B has 6 questions of 3 marks each; and Section–C has a case-based question of 5 marks.

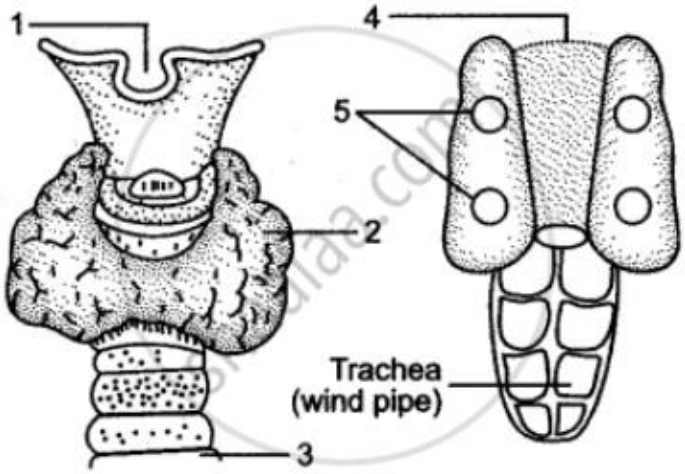
iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.

v) Wherever necessary, neat and properly labeled diagrams should be drawn.

Q No		Marks
	SECTION A	
1	a) Name the end products of aerobic and anaerobic glycolysis. b) List the two ways by which molecules of ATP are produced in glycolysis during aerobic respiration?	2
2	a) How many mitotic cell divisions are required to produce 512 cells from single cell? b) A diploid cell undergoes mitotic cell division. What will be the chromosome number (N) in metaphase? What would be the DNA (C) content in anaphase?	2
3	Answer the following  i. What does action spectrum indicate? How can we plot an action spectrum? ii. What is the role of accessory photosynthetic pigments?	2

	OR The diagram shows the overall view of photosynthesis. Study the diagram for two phases of photosynthesis and answer the following questions.  i) Identify C and H the phases of photosynthesis shown in the diagram. ii) What does E and F represent in the diagram?	
4	It is said that PGRs may function synergistically or antagonistically. What is meant by these two terms? Give an example for each.	2
5	Bring out the role of calcium ions and ATP in muscle contraction. **OR** State two main differences between red muscle fibres and white muscle fibres.	2
6	Fill in the blanks at A, B, C and D Polarised nerve membrane is stimulated at a site. Rapid influx of **(A)** occurs and outer side of the membrane becomes **(B)** charged. ↓ The polarity of membrane at this site is **(C)** and hence called depolarised. The potential difference between two sides is called (**D**)	2
	SECTION B	
7	The diagram below shows the various events and stages during first meiotic division. Note the cells are not arranged in the order in which the stage of meiosis I occurs. Use the diagram to answer the following questions.  	3

	(i) Place the diagrams in order from first to last of first stage of meiosis I. (ii) In cell A, what structure is labelled as 'X' (iii) Which cell depicts crossing over? What is its significance in meiosis? (iv) How are the two paired homologous chromosomes held together during zygotene? (v) During which phase terminalisation of structure X occur?	
8	Suppose Euphorbia and Maize are grown in tropical area. a. Which of them do you think will be able to survive under such conditions? b. Which one of them is more efficient in terms photosynthetic activity? c. What difference do think are there in leaf anatomy?	3
9	i) RQ is less than one when aerobic respiration takes place in fats or proteins. Give reason. ii) Coenzyme FAD removes hydrogen atoms from which molecule in Krebs cycle? iii) Identify the diagram and write the role of oxygen in this system. 	3
10	Ramu was reading from his notebook that in human beings exchange of gases takes place only on the lung surface. But his elder sister, Manisha corrected him that exchange of gases takes place in lungs as well as in the tissues. i) Represent diagrammatically the exchange of gases at the alveoli ii) Why does oxygen diffuse into the blood vessels in the lungs but out of the blood vessels in the tissues?	3
11	 i) Identify the blood vessels A, B and C ii) Name the type of blood which flows through A iii) Mention one structural difference between A and B	3

	OR Given alongside are the diagrammatic sketches of some endocrine glands. Observe the figures and answer the following questions.  i) Name the hormones secreted by structures 2 and 5. ii) What is the chemical nature of the hormones? iii) Name the element related to functioning of the hormone secreted by structure 2 and its deficiency disease.	
12	i) Why do animals excrete the nitrogenous wastes in different forms? ii) Why can not land animals excrete ammonia? iii) What is the advantage of excretion of uric acid by birds?	3
	SECTION C	
13	A 27-year-old female who is pregnant with her second child presents to her obstetrician for the first prenatal visit of this pregnancy. She delivered her first child four years ago at 39 weeks with no complications. Routine prenatal testing is ordered including ABO, Rh(D), and antibody screen. Her doctor wants her to give Rh immunoglobulin injection after seeing her blood test report to avoid risks of Rh incompatibility. i) What is Rh incompatibility? ii) What can be the problem faced by the female in the second pregnancy? Why? iii) Where is Rh factor found in the blood of humans? iv) What does Rh stand for? **OR** Read the following passage and answer the questions that follow: A sample of urine was diagnosed to contain high amount of glucose and ketone bodies. Based on this observation, answer the following questions. i) Name the endocrine gland and the hormone, related to this disorder. ii) Name the cells targeted by this hormone. iii) What term is given to this condition? iv) How can it be treated? v) Name two hyperglycaemic hormones.	5

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER - TERM – II: SESSION 2021-22

Class : XI **Max. Marks: 35**

Subject : BIOLOGY **Time: 2 hours**

General Instructions:

i) All questions are compulsory.

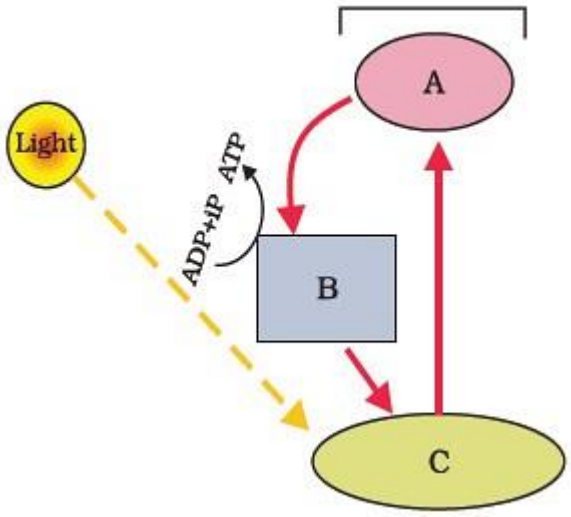
ii) The question paper has three sections and 13 questions. All questions are compulsory.

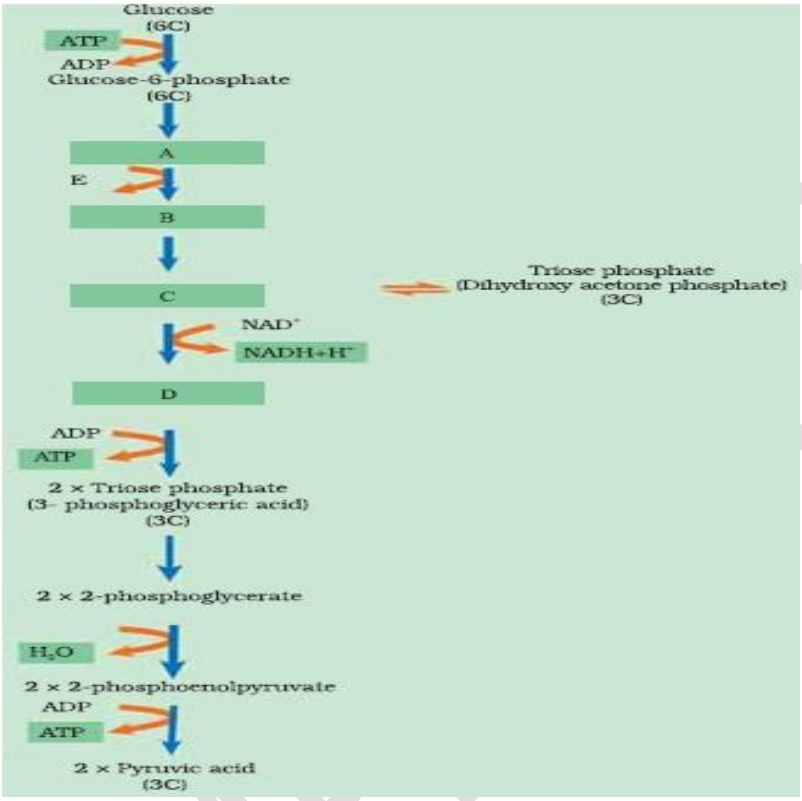
iii) Section–A has 6 questions of 2 marks each; Section–B has 6 questions of 3 marks each; and Section–C has a case-based question of 5 marks.

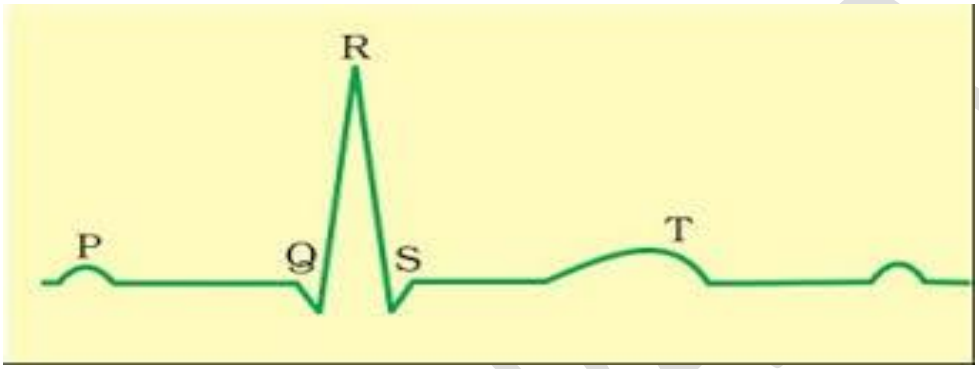
iv) There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.

v) Wherever necessary, neat and properly labeled diagrams should be drawn.

Q No.		Marks
	SECTION A	
1	The following events occur during the various phases of the cell cycle. Name the phase against each of the events. (i) Disintegration of nuclear membrane (ii) Appearance of nucleolus (iii) Division of centromere (iv) Replication of DNA	2
2	Different substrates get oxidized during respiration. The Respiratory Quotient (RQ) indicate which type of substrate, i.e., carbohydrate, fat or protein is getting oxidized. R.Q = (A/B) What do A and B stand for ? What are the RQ value of carbohydrate and fats. Explain with examples.	2
3	Plant growth substances (PGS) have innumerable practical applications. Name the PGS you should use to (i) Increase yield of sugar cane (ii) promote lateral shoot growth	2

	(iii) Cause sprouting of potato tuber (iv) Inhibit seed germination	
4	In the diagram shown above label A, B and C. What type of phosphorylation is possible in this? 	2
5	During resting potential, axonal membrane is polarised, indicate the movement of +ve and -ve ions leading to polarisation. Diagrammatically represent the conduction of nerve impulse through the axon. OR a. What are the components of limbic system? b.What is the role of limbic system ?	2
6	Explain the initiation of muscle contraction. What is the role of sarcoplasmic reticulum and Myosin head during contraction in striated muscles?	2
	SECTION B	
7	(I) Define cell cycle and name the phases in which the cell cycle is divided. (ii) Which tissue of animals and plants exhibit mitosis. (iii) What is quiescent stage?	3
8	How are the two heart sounds produced during cardiac cycle? Define cardiac output. OR Calcium plays a very important role in the formation of bones. Write on the role of endocrine glands and hormones responsible for maintaining calcium homeostasis.	3

9	Diagrammatically represent the Biosynthetic phase of photosynthesis.	3
10	The figure given below shows the steps in glycolysis. Fill in the missing steps A,B,C,D and also indicate whether ATP is being used up or released at step E ?  	3
11	What is the role played by Renin-angiotensin in the regulation of kidney function?	3
12	For completion of respiration process, write the given steps in sequential manner (A) Diffusion of gases (O_2 and CO_2) across alveolar membrane. (B) Transport of gases by blood. (C) Utilisation of O_2 by the cells for catabolic reactions and resultant release of CO_2. (D) Pulmonary ventilation by which atmospheric air is drawn in and CO_2 rich alveolar air is released out. (E) Diffusion of O_2 and CO_2 between blood and tissues. OR	3

	Differentiate between A. Inspiratory and Expiratory reserve volume B. Vital capacity and total lung capacity C. Emphysema and Occupational respiratory disorder	
	SECTION C	
13	Study the diagram given below and answer the questions that follow  (i) Name the image shown. (ii) What does the peak refer to in the graph? (iii) How can you determine the heart beat rate of an individual from this graph? (iv) What does the P wave indicate? (v) Which coronary artery disease is caused due to narrowing of the lumen of arteries? OR Hormones are chemical messengers produced by the endocrine gland and released into the blood stream. They regulate various body functions like growth, reproduction. Protein hormones are water soluble and steroid hormones are not water soluble. Each hormone has specific receptor present on the plasma membrane of target cell. A. Diagrammatically represent the mechanism of action of steroid hormone. B. What is the role of second messenger in hormone action? C. What is hormone receptor complex?	5

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER - TERM – II: SESSION 2021-22

Class : XI **Max. Marks:35**

Subject:Computer Science(083) **Time : 2 Hours**

General Instructions:

- **The question paper is divided into 3 sections – A, B and C**
- **Section A, consists of 7 questions (1-7). Each question carries 2 marks.**
- **Section B, consists of 3 questions (8-10). Each question carries 3 marks.**
- **Section C, consists of 3 questions (11-13). Each question carries 4 marks.**
- **Internal choices have been given for question numbers 7, 8 and 12.**

	Section -A **Each question carries 2 marks**	
1.	Look the following statements (a) and (b) carefully and state difference between the two statements. (a) t1=(a) (b) t2=(a,)	2
2.	What will be the output produced by the following code? d1={5:"number","a":"string", (1,2):"tuple"} print ("Dictionary Contents") for x in d1.keys(): #iterates on a key list print (x,':',d1[x], end='') print(d1[x]*3)	2
3	Write a user defined function to print the value of exponent of 2. Exponent should be passed by user while execution. Also write the statement to call the function.	2

4	Rishika found a crumpled paper under her desk. She picked it up and opened it. It contained some text which was struck off thrice. But she could still figure out easily that the struck off text was the email ID and password of Garvit, her classmate. She Uses Garvit's password to access his account and start posting on social media from his account. In the light of above scenario answer the following: 1. What actually is happening with Garvit's ID ? 2. What as a good netizen Rishika should have done ?	2
5	What do you understand by eavesdropping? Give brief answer	2
6	What is Plagiarism ? Write any one incident which can be called Plagiarism.	2
7	Ravi has made an online purchase of White cotton T-Shirt from online shopping website X. Afterwards whenever he is visiting any website, he is getting advertisement for similar product. What is the reason behind this? OR Preeti celebrated her birthday with her family. She was excited to share the moments with her friend Himanshu. She uploaded selected images of her birthday party on a social networking site so that Himanshu can see them. After few days, Preeti had a fight with Himanshu. Next morning, she deleted her birthday photographs from that social networking site, so that Himanshu cannot access them. Later in the evening, to her surprise, she saw that one of the images which she had already deleted from the social networking site was available with their common friend Gayatri. She hurriedly enquired Gayatri "Where did you get this picture from?". Gayatri replied "Himanshu forwarded this image few minutes back". Help Preeti to get answers for the following question. Give justification for your answers so that Preeti can understand it clearly. 1. *How could Himanshu access an image which Preeti had already deleted?*	2

	SECTION – B **Each question carries 3 marks**	
8	Sohan has made a list **sohan_list**. He executes the following python statements. Predict the output of the code as per the sohan's list. sohan_list=['p','r','o','b','l','e','m'] sohan_list[2:3]=[] print(sohan_list) sohan_list[2:5]=[] print(sohan_list) print(sohan_list[::-1]) OR Write a program to delete the item from a list by its value (value should be entered by user)	3
9	Write a program to create a nested tuple to store the rollno, name and marks of students and display them.	3
10	While checking the mail , Ramesh finds "You have won a lottery of 50 Billion USD". It further states , "To avail the money you have to transfer an amount of Rs 50000? This could be a mail to make money from Ramesh. *a. Which kind of attack it is called.* *b. Give precautionary measures for the users to be safe from such attacks.*	3
	Section C **Each question carries 4 marks**	
11	Sunita has created a dictionary containing names and marks as key value pairs of 6 students. Write a program to perform the following operations: *a. Display the key of the dictionary where the corresponding value (marks) is greater than 75.* *b. Display the maximum marks obtained with the name of child*	4

12	Sushma has been given a task to find the Average of the marks obtained by the 5 students in a subject. You have to do this work by storing the marks in a Python List. Write the code for the calculation of Average marks OR Write a program to perform the following task in a list: *a. Searching an element given by user* *b. Deleting an item in the given position by user.*	4
13	Consider the following acts : • Tampering with computer source documents • Hacking the computer system • Using the password of others • Publishing sensitive personal data of others without their consent ….etc., With reference to these answer the following: i. Which type of crime is taking place? ii Which act gives us protection against such crime. iii. Write the name of the Act. iv. Name the tribunal/place we need to approach in such cases.	4

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER - TERM – II: SESSION 2021-22

Class : XI **Max. Marks: 35**

Subject : COMPUTER SCIENCE (083) **Time: 2 HOURS**

General Instructions:

- The question paper is divided into 3 sections – A, B and C
- Section A, consists of 7 questions (1-7). Each question carries 2 marks.
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- Section C, consists of 3 questions (11-13). Each question carries 4 marks.
- Internal choices have been given for question numbers 7, 8 and 12.

SECTION – A

Each question carries 2 marks

1. i. Write down the correct statement to define a tuple ***T*** which has only one element 2. (1)

   ii. What will be the outcome if the following program code is executed? (1)

```
values = 4, 1, 7, 2, 6, 9
print(values)
```

2. i. Define a dictionary ***Teacher*** whose keys are 'TID', 'TName', 'Salary' and the corresponding values are '23001', 'Chitra V', 45000.00 respectively. (1)

   ii. Can you add an item to ***Teacher*** whose key is ['Sub1','Sub2'] and value is ['Physics', 'Math']? Give reason behind your answer. (1)

3. Consider the following program code and answer the following questions:

```
import random
Grades = ['A','B','C','D','E']
index = 2 + random.randint(0,2)
for i in range(0,index):
        print(Grades[i],end='@')
```

i. What are the minimum and maximum values of index variable? (1)

ii. Which of the following can be output(s) of the above program code? (1)

i. A@ ii. A@B@

iii. A@B@C@ iv. A@B@C@D@E

4. Give an example of active digital footprint and passive digital footprint. (2)

5. Identify the types cyber-attack in each of the following cases: (2)

Case I: A software encrypts files and data within a system, making the content inaccessible until a handsome amount is paid to some third party.

Case II: Hackers render a fully functional website inaccessible to legitimate customers by illegally blocking the network traffic.

6. What do you mean by malware? Give 2 examples of malware. (2)

7. Name any two types of public license. (2)

OR

Write down any two types of IPR violation.

SECTION – B

Each question carries 3 marks

8. Write a program in python to input a tuple of strings from the user and display reverse of each string. (3)

e.g. – If the tuple is (“word”, “234qw”, “you”, “$89”) the output should be : drow wq432 uoy 98$

OR

Write a program in python to input a tuple of numbers from the user and display the Second Highest element present in the tuple.

e.g. – If the tuple is (67.12, 709, -41, 11.43, 517, -39.06) the output will be 517.

9. Find the output of the following program: (3)

```
LP = list(("Story", (-2,3.1), 'True'))
for i in range(0, len(LP), 1):
   if len(LP[i])>1:
      print(LP[i][-1])
```

10. i. Why cookies can be harmful? (1)

ii. Which mode of browsing helps in identity protection during net surfing? (1)

iii. What do you mean by ethical hacking? (1)

SECTION – C

Each question carries 4 marks

11. Consider a list L = [53, 89, 12, 78, 45] and answer the following questions:

i. Write a statement to add the value 96 in L so that the L becomes [53, 89, 12, 78, 96, 45] (1)

ii. What will happen if the following statement is executed? (1)

```
print(L.pop())
```

iii. Write a statement to arrange the elements of L in the descending order of values i.e. L is [89, 78, 53, 45, 12] (1)

iv. What is the content of Lx if Lx = L[2:]+L[:3]*2, where L is the initial original list given in the question ? (1)

12. Write a program in python to input a text from the user and display the no. of occurrence of each alphabet irrespective of case present in it by using a dictionary. (4)

e.g. – If the input text is “Where is Swati’s 7 books?” the output will be:

w = 2
h = 1
e = 2
r = 1
i = 2
s = 4
a = 1

t = 1

b = 1

o = 2

k = 1

OR

Write a program in python to input a text from the user and display the no. of vowels, consonants, digits and white space characters present in it by using a dictionary.

e.g. – If the input text is "Where is Swati's 7 books?" the output will be:

Vowels # 7

Consonants # 11

Digits # 1

White spaces # 4

13. i. What do you mean by e-waste? Why e-waste management is required? (2)

ii. Which of the following comes under cybercrime as per Indian IT Act? (2)

a) Body shaming to teenagers through social media
b) Burglary of mobile phone and laptop by breaking the safety door of a house.
c) Sending threatening email
d) Heated argument over phone
e) Receiving unnecessary ads online
f) Adult pornography
g) Using someone's credit card to purchase online without prior permission of the user.
h) Downloading a song from youTube

_____

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER – TERM-II: SESSION 2021-22

Class: XI Max. Marks: 35

Subject: Computer Science Time 2 Hours

General Instructions

- *The question paper is divided into 3 sections – A, B and C*
- *Section A, consists of 7 questions (1-7). Each question carries 2 marks.*
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- *Section C, consists of 3 questions (11-13). Each question carries 4 marks.*
- *Internal choices have been given for question numbers 7, 8 and 12.*

Section A (Q.1 to Q.7)

Each question carries 2 Marks

1. Write the output of the following code: 2

```
tup = (88, 22, 41, 61)
ln = len(tup)
for x in range(ln-1, -1, -2):
        print(tup[0:x])
```

2. Enlist at least four characteristics of python dictionaries. 2

3. (a) Predict the output of the following code: 2

```
import math
print(math.ceil(22.2))
print(math.pow(math.sqrt(4),2))
```

(b) A python code snippet is given as follows:

```
import random
import random
mylist = [10, 15, 20, 25, 40]
for a in range(3):
   r = random.randint(0,2)+2
   print(mylist[r])
```

Which element(s) of mylist cannot be printed from the above code?

4. What is meant by Digital Footprint? how it can be useful. 2

5. Define the following: 2

(i) Phishing (ii) Eavesdropping

6. Enlist at least four measures to maintain confidentiality of personal information to ensure cyber safety. 2

7. What is e-Waste? Write advantages of recycling e-Waste in a proper manner. 2

OR

Enlist at least two Gender and two Disability issues faced while teaching and using computers.

Section B (Q.8 to Q.10)

Each question carries 3 Marks

8. Write a python program to accept a list of strings and display the string which has maximum length and also display the length of maximum string. 3

For example:

If user enter list as ['Amar', 'Mallappa', 'Ria']

Output must be as follows:

String having maximum length : Mallappa

Length of maximum string : 8

OR

Write a python program to accept a list of integers, calculate and display the average of elements which are multiples of 5.

For example:

If user enter list as [10, 20, 17, 22, 15]

Output must be as follows:

Average of multiples of 5 is : 15

9. Write a python program to read a tuple of numbers and display the second largest element of the tuple. 3

10. Explain the following terms: 3

(a) Malware (b) Trojan (c) Adware

Section C (Q. 11 to Q.13)
Each question carries 4 Marks

11. Consider a list given as follows: 4

Mylist = [25, 80, [-2, -6, 'KVS'], 100, 80, 50, 40]

Based on the above list declaration, answer the following:

(a) Write slicing statement to display [50, 80, 100]

(b) Write python statement to display 'KVS'

(c) Write python statement to display how many times value 80 has appeared in the list.

(d) Write python statement to insert value 200 before 100 in the list.

12. Write a python program to read a string count the number of times each character appears in a given string using a dictionary. 4

For example if the input string is : 'INDIAN'
Then output must be : { 'I':2, 'N':2, 'D':1, 'A':1}

OR

Write a python program that repeatedly asks the user to enter product names and prices. Store all of them into a dictionary whose keys are product names and values are prices. After entering all products and prices display those products whose price is more than Rs.1500

13. Simran wants to develop a software/application for the computerisation of her brother's music shop so that he can maintain stock and generate bills digitally. Answer any 4 questions given below with justification. 4

(a) Her friend advised her to use software which comes under GPL, but Simran doesn't know what is GPL? Explain, what is GPL.

(b) Simran has chosen Python language as front end and MySQL as backend for developing her application as both are Open source? Explain, what are Open Source software and write at least one advantage of using them?

(c) What is the specific term/rights used to safeguard creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.

(d) Simran's friend Ranjeet somehow stole the software/application

developed by Simran and installed it on another Music store representing it as his own work without Simran's permission and without giving credit to her. What is the specific name of this this act. What she should do now to safeguard her work of intellect legally, so that no one can copy her application. What she should do?

********** **END** **********

KENDRIYA VIDYALAYA SANGATHAN

BENGALURU REGION

SAMPLE QUESTION PAPER – TERM II: SESSION 2021-22

SET: A

Class: XI **SUBJECT: ENGLISH**

MAX MARKS: 40 **TIME: 2 hours**

GENERAL INSTRUCTIONS:

1. *This question paper is divided into two parts: A and B.*
2. *All questions are compulsory.*
3. *Separate instructions are given with each section and question, wherever necessary.*
4. *Read these instructions very carefully and follow them.*
5. *Do not exceed the prescribed word limit while answering the questions.*

SECTION – A (READING)

Q.1) READ THE PASSAGE GIVEN BELOW:

A SIGHT FOR SORE EYES

a) For lasting and clear eyesight, eyes need care in the form of preventive measures, a continuous life-long exercise. Eyes don't just see, they do the talking. This is why of all our senses the most precious is eyesight. Eyes need care in the form of prevention, and knowing some preventive methods in eye care can make your eyes look bright and healthy and leave you with excellent eyesight.

b) How do we keep eyes bright and healthy? Eat good helpings of vegetables, fruits, omega-3 fatty acids, beta carotenes with vitamins A, C and E, enjoy good sleep and avoid direct sunlight. Therefore, good habits and good general health care does play a major role in eye care. Eyes are windows to the human body; while you look out through this window, we, the eye doctors, can look in to find conditions such as glaucoma, abnormal blood pressures, diabetes, heart diseases and other health concerns much before you notice its adverse impact, and help you take preventive measures.

c) It is never too early to begin eye check ups. Throw a torchlight from different directions and look for fixation in newborns and, if in doubt, take the baby to an eye specialist. By the time a child is four, it is imperative to have a check up every year to look for squint, signs of opacity brought in by cataracts and minus or plus powers to decide whether or not glasses are needed. Ultraviolet- protective sunglasses from childhood can help protect eyes from the harmful UV rays. Once in the teens, contact lenses can be worn in place of glasses, but never sleep with them on as they reduce the supply of air and blood to the cornea and can damage eyes. When in 20s, you can get rid of glasses with lasers, Lasik or permanent contact lenses.

d) An emerging and alarming trend is the Computer Eye Syndrome, which appears to be catching on in early adult life. We cannot escape the use of computers but, sadly, our eyes are not designed to cope with these screens. Continuous staring at the monitors reduces blinking, causes strain to the eyes and can lead to dry eyes as well. Therefore, it is always better to take a break of 10 minutes every hour and look at distant objects such as the landscapes or even television.

e) Glaucoma or raised pressure in eyes and diabetic retinopathy are silent killers of eyesight. Therefore, checking eyes once every six months is essential. If afflicted with diabetes, diet, exercise and drugs are to be remembered in that order to keep the doctor away.

f) Around the age of 40, more or less everybody requires reading glasses, a condition known as presbyopia. But now you can get rid of these glasses as well, with lasers called INTRACOR and SUPRACOR. One can develop cataract- defined as the loss of transparency in the natural lens of the eye - at any age, but it usually strikes in old age. It's treated by replacing the opaque lens with an artificial lens called the intraocular lens. The latest in cataract removal techniques is called femtosecond laser assisted cataract surgery, which is blade-free, hands-free and makes the operation precise, safe and accurate.

g) That said, eye care is, inevitably, a continuous exercise through life.

- Dr Kasu Prasad Reddy

On the basis of your understanding of the passage answer any 8 the following questions given below: (1x8=8M)

a. In what way can we keep our eyes bright and healthy?

b. By examining the eyes, the doctors can detect health conditions like…….?

c. Eye check ups should begin at what age?

d. What are the harmful effects of wearing contact lenses for long hours?

e. What are the best ways to avoid eye problems?

f. What will prevent eyes from harmful UV Rays?

g. Excessive Computer usage causes which problem ?

h. What is 'presbyopia' ?

i. Find word from the passage which means the same as 'Grievously affected especially by disease' (Para e)

j. Find words from the passage which means the same as 'by necessity' (Para g)

Q.2 Read the passage carefully.

1. The monsoon is such a welcome respite from the scorching summer thanks to the overcast sky, gentle rain and lush greenery all around. Almost all of us love to savour spicy and crunchy food items such as fritters (pakoras) and chaats like panipuri, sevpuri teamed with cutting chai as the rainwater lashes against the window pane. However, the season also brings along a lots of diseases such as dengue, malaria, conjunctivitis, typhoid, viral fever, pneumonia, gastrointestinal disturbances, diarrhoea, food poisoning, cholera, cough and cold and jaundice due to bacteria in the environment.

The challenge lies in going about your daily routine without falling ill. If you suffer from low immunity, you are at a higher risk of contracting these diseases. However, the right dietary tips can strengthen your immunity and help you say hale and hearty.

2. Due to the humid climate, you may not feel too thirsty and consume just one litre of water every day. But you need to be well hydrated as sweat doesn't evaporate quickly in monsoon. Consequently, this prevents the body from releasing heat. So, consume a lot of water as it helps to flush out toxins from the body. Ensure that the water is clean, pure and safe to drink. Avoid aerated drinks; instead consume warm beverages such as green tea with holy basil leaves, ginger, pepper and honey as they have anti-bacterial properties. A bowl of hot vegetable soup is also a good option. The hot beverages increase your body temperature (which will in turn give you warmth) while the ingredients will boost your immunity.
3. Consume fruits such as cherries, bananas, apples, pomegranates, plums, litchis and pears as they are packed with anti-oxidants and are rich in vitamin A,E, C and minerals. Vegetables such as cauliflower, potatoes, cluster beans, lady's finger, kidney beans, pigeon pea and sprouted grains get spoilt easily due to the humidity. So, they should be avoided. Opt for cooked or steamed veggies. Avoid salads as they comprise raw vegetables that contain active bacteria which lead to various infections and affect the body's immunity. Avoid strong smelling or extra sweet fruits such as mangoes and jackfruit that attract flies as their excess intake can cause skin irritation and stomach ache. It's also important to store vegetables the right way during the rains. Do not wash the veggies thoroughly before storing, as the moisture will attract pathogenic fungus. These bacteria can spread to other susceptible food items as well, making them unhygienic. Instead, pat dry and store

separate food items in different containers. Buy them in limited portions and use them as soon as possible.

4. Dehydration makes your hair brittle and scanty. So, hydrate yourself. Zinc and iron help to keep your tresses healthy and beautiful. Consume nuts, eggs and walnuts to maintain hair strength. Walnuts are rich in biotin and vitamin E, which are excellent antioxidants. Proteins are important for hair strength too. So, add curd to your diet, as it is a great source of protein. Amla juice, organs and other citrus foods are rich in vitamin C. Vitamin C keeps your hair strong as it helps in production of collagen that among other things strengthens the hair capillaries (ensuring proper nutrient supply to our hair). Also, ensure that you wash your locks on alternate days and cover them well during the monsoon. Dried apricots, roasted sunflower seeds and lentils are better foods to consume during monsoon than other iron-rich foods which are susceptible to microbial attack. Do not forget to eat yummy corn on cob as corn is also rich in iron and zinc.
5. So, the secret to enjoy the rains, without the fear of affecting your health is to go light on eating. Have a safe and healthy monsoon.

A. On the basis of your reading of the above passage make notes on it, using headings and sub-headings. Use recognizable abbreviations (wherever necessary – minimum four) and a format you consider suitable. Also supply an appropriate title to it. 3M

B. Write a summary of the notes prepared, in not more than 80 words. 2M

SECTION – B (WRITING & GRAMMAR)

Q.3. Design a poster in not more than 50 words for your school library on the value of books and good reading habits. Use appropriate slogans.

3M

OR

Regular exercise is one of the best things you can do for your health, but it should not be at the cost of your life. Recently, Kannada film star, Puneeth Rajkumar died of cardiac arrest and left a throng of grieving fans. Design an effective poster, raising awareness about how excessive workout may be hazardous.

Q.4. You are Amogh, 214-B, Nehru Nagar, M.G. Road, New Delhi-16. You saw an advertisement regarding a course for training and preparing students for the IELTS. You wish to join the course. Write a letter to the course Director of 'British Fluentzy', Indraprastha Nagar, Delhi-20 enquiring about all the details.

5M

OR

'Online teaching cannot replace classroom teaching'. Write a debate either for or against the motion.

Q.5.Make meaningful sentences by filling in the blanks with an appropriate word. (½ x4=2M)

Uniforms are a great team-building resource (i)_____(for/to) your staff, (ii) _____(but/and) they can improve overall customer service as well as brand awareness. Company uniforms make it easy for buyers to locate employees (iii)_____(in/among) a crowd, cutting down on response time. Uniforms also benefit client satisfaction by extending awareness of your company, both during and outside of work hours. Employees who wear uniforms with a company's logo and colours allow your business to become instantly recognisable (iv) _____(for/by) local customers.

Q.6.Read the jumbled sentences with proper focus and then arrange the sentence in its correct order. (½ x 4=2M)

(a) erosion / modern / is / wrath / the / of / flood / due / of / river / civilization / to / experiencing
(b) standing / off / on / uprooted / the / coasts / not / should / cut / or / be / trees
(c) which / for / vegetation / provides / surface / the / controls / the / heat / build-up / earth
(d) is / warming / major / factor / of / global / deforestation / global / the

SECTION – C (LITERATURE)

Q.7. Read the following extract carefully and answer the questions that follow: 1x3=3M

(I) And forever, by day and night, I give back life to my own origin, and make pure and beautify it;

(a) In what way does the rain help its place of origin?
(b) What is the importance of the word 'forever'?
(c) Which word is the opposite of 'end' in the above stanza?

OR

FRANK: Look, what time did Mr.Crocker Harris tell you to be here?
TAPLOW: Six thirty, sir.
FRANK: Well, he's ten minutes late. Why don't you cut? You could still play golf before lock-up.
TAPLOW: (really shocked) Oh, no, I couldn't cut. Cut the Crock- Mr.Crocker Harris? I shouldn't think it's ever been done in the whole time he's been here. God knows what would happen if I did. He'd probably follow me home, or something.
FRANK: I must admit I envy him the effect he seems to have on you boys in the form. You all seem scared t death of him. What does he do – beat you all, or something?

(a) Why was Taplow shocked?
(b) Why did Taplow refuse to 'cut' Mr.Crocker-Harris?
(c) Why does Frank envy Mr.Crocker Harris?

Q.8. Answer any 3 of the following questions in about 30-40 words: 2x3=6M

(a) In the poem 'Childhood', the poet has asked two questions – one is about time and the other is about the place. Why has he used these questions?
(b) What leads Mr. Frank react to comment, "I'm sure you're exaggerating?

(c) Why do you think the poet says the phrase 'reck'd or unreck'd?
(d) 'Population control, even if it is through coercion, is essential for meaningful development that benefits all sections of the society'. How far do you agree to this statement?
(e)Though Nick Midddleton faces a lot of difficulties, he is able to complete his pilgrimage due to his undeterred faith. Justify.

Q.9. Answer any 1 of the following questions in 120 words: 3M

(a) Do you think Albert is being impolite while answering the history teacher's questions? Give your reasons.

OR

(b) How does Mrs. Pearson behave towards her husband after she changed her personality with that of Mrs. Fitzgerald?

Q.10. Answer any 1 of the following questions in 120 words: 3M

(a) The Doctor has the capability of saving a life and if he lets his personal woes get the better of him, a life is endangered. Describe how Dr. Andrew Manson balanced his personal life with professional responsibilities.

OR

(b) 'Mother's Day' is a satirical and humorous depiction of the status of women, in particular, a housewife in a family'. Are the issues raised in the play relevant even today? Elaborate with reasons.

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KENDRIYA VIDYALAYA BENGALURU REGION
BENGALURU REGION
SAMPLE QUESTION PAPER- TERMII; SESSION 2021-22
SET: B

CLASS: XI **SUBJECT: ENGLISH**
MAX MARKS: 40 **TIME: 2 hours**

GENERAL INSTRUCTIONS:

1. *This question paper is divided into two parts: A and B.*
2. *All questions are compulsory.*
3. *Separate instructions are given with each section and question, wherever necessary.*
4. *Read these instructions very carefully and follow them.*
5. *Do not exceed the prescribed word limit while answering the questions.*

SECTION A: READING

Q1) READ THE PASSAGE GIVEN BELOW: **(1X8=8 MARKS)**

1. Marcus Bartley hails from a family of renowned doctors in Yercaud. It was expected that Bartley too would enter that profession. But even in school, he knew what he wanted to do. His parents left him to make his own choices, and in 1940, Bartley headed to Bombay and got a job as a rookie Photographer/reporter with a leading newspaper. Starting young In the small, closely-knit coterie of press photographers, he met Ellis R Dungan, Shantilal Shah (whom I married much later), BK Dilwali of Simla Studios, Carlo Marconi, and Homai Vyarawalla. Bartley did not have any formal training in photography, but he was willing to work hard and do the smallest of jobs. He observed, read, watched and absorbed. My husband would say that as a press photographer, you clicked on the run, and considered yourself lucky if you got four to five clear photographs from a roll of 36. With Bartley, it was almost always 36 out of 36. In 1945, with the War over, Bartley returned to Madras and cranked his first film. When we caught up with him in 1956, this tall, welcoming man with bright blue eyes was head of the photography department of Vauhini Studios owned by B Nagi Reddy. Much has been said of Bartley being a difficult person to get along with, because of his bad temper.

2. The truth is that he was a perfectionist, and could not deal with an unprofessional attitude. He didn't believe in hierarchies and treated everyone the same; it is possible he didn't even know the names of the stars in his films. All that mattered to him was that they were punctual. He did not understand Hindi, spoke fractured Tamil and Telugu, but he made it a point to sit with the script writer and director, understanding the screenplay, so he could work on his lighting style. His specialty was special effects, particularly for mythological films. Bartley had hand-picked a team of light boys and assistants, who carried out his instructions, working in efficient silence. He rarely allowed anyone to handle his lenses. I have seen him holding on to them as though they were the Holy Grail. He was focused and would work for nights before the actual shooting, lighting the set to make it perfect. He worked with glamorous film stars, but rarely socialised with them. He was teased for being one of the rare Anglo Indians who never danced. Chemmeen and beyond, he was excited when Ramu Kariat signed him on for Chemmeen(Malayalam). There were endless problems with this film.

3. After the famed Hrishikesh Mukherjee stepped in to re-edit the confused footage, the film was released in 1965, to unanimous acclaim by critics and audiences. Every aspect of the film was highly praised, in particular the photography by Bartley. But there were also rumours that Bartley had walked out midway over money matters. No one who knew him would believe he would jeopardise a production over money. Creative differences or unprofessionalism perhaps, but money was the least important aspect of his profession. Sadly, some portions of the film had to be completed by another cameraman and that was enough to cost Bartley the National Award that year. Many years later, senior cameraman U Rajagopal told me that he was only called in to complete patchwork. Bartley finally received the Award in 1969/1970 for Shanti Nilayam. Later years Bartley was not in good health. He had long suffered with diabetes, refused to go to a doctor, treating himself instead. By 1988, he seemed to lose his driving interest. He was restless and lonely. He decided to give up cinematography, but had more work than he could cope with, repairing lenses. Arriflex made him their authorised service person and Bartley would sit for hours, doing precision work alone, in silence. He had never had a large circle of friends as his scholarship and iconoclastic brilliance did not allow casual chat. His son Alan admitted him to a hospital but Nagi Reddy shifted Bartley to Vijaya Hospital where he was given personal attention. From the Studios to the Vijaya Hospital, it was as though the wheel had come full circle few days later, as I

was about to drive to the hospital, I received his son's call that Bartley had passed away. The roads to his home were jammed for hours. Cars were abandoned and we walked. There were hundreds of weeping people, friends choked with grief, mounds of garlands. His peers, members of every association of the film industry were present. There are not many who remember him today. But his achievements as pioneer, visionary, genius, and guru live on. Rajiv Menon and Madhu Ambat call me on occasion and we speak of Marcus Bartley. He will never be forgotten. (Source: The Hindu 5 April, 2017)

Based on your reading of the passage, answer **any eight** of the following:

a. According to passage, why was it difficult to get along with Marcus Bartley.
b. What was the quality in Bartley that made him establish himself as successful press photographer?
c. Where did Marcus Bartley get his first job?
d. When and for which film did Marcus Bartley get his first National Award?
e. What health issues did Marcus Bartley have in later years?
f. What profession was he expected to join in line with his family tradition?
g. Why did people not believe the rumours about him quitting the movie Chemmeen over money matters?
h. Why did Bartley not have many friends?
i. i.The word which is a synonym for: sceptic (Para3)
   a) Jammed
   b) Iconoclast
   c) Abandoned
   d) Jeopardise
j. The word which means: a person who plans for the future(para3)
   a) Pioneer
   b) Visionary
   c) Genius
   d) Brilliant

Q2). Read the passage given below.

1. The present generation is well updated in the use of internet and computers. The rapid development in computer technology and increase in accessibility of the internet for academic purposes has changed the face of education for everyone associated with it. The data of a recent survey that was done to ascertain the time spent on utilisation of the computer and internet shows that at present, many schools and universities have been implementing internet-based learning, as it supplements the conventional teaching methods. The internet provides a wide variety of references and information to academics as well as scientific researchers. Students often turn to it to do their academic assignments and projects.

2. However, research on the Net is very different from traditional library research, and the differences can cause problems. The Net is a tremendous resource, but it must be used carefully and critically.

3. According to a 2018 Academic Student e-book Experience Survey, conducted by LJ's research department and sponsored by EBSCO, when reading for pleasure, almost 74% of respondents said they preferred print books for leisure whereas, 45 % of respondents chose e-books rather than the printed versions, for research or assignments.

4. When asked what e-book features make them a favourite for research, the respondents were clear. Having page numbers to use in citations, topped the list (75%); followed by the ability to resize text to fit a device's screen (67%); the ability to bookmark pages, highlight text, or take notes for later reference (60%); downloading the entire e-book (57%); and allowing content to be transferred between devices (43%) were the varied responses.

a) On the basis of your understanding of the passage make notes using recognizable abbreviations.

(**3 marks)**

b) Write a summary of the passage in not more than 80 words.

(2 marks)

SECTION B

WRITING AND GRAMMAR

Q.3) You are Bhuvan/Bhavna. As a concerned citizen you are seriously disturbed about the use of polythene that is causing serious environmental issues and health hazards. Draft a poster in not more than 50 words highlighting the issue. Use appropriate slogan.

(3 Marks)

OR

Draft a poster in not more than 50 words on Road Safety on behalf of the Traffic Police.

Q.4) You are Amit Kumar and you live at 30 Vrindavan Nagar, Nagpur. Your father has been transferred to Hazaribagh, Jharkhand. It won't be easy for you to continue in the same school and you have decided to ask for a Transfer Certificate. Write an application to your school Principal requesting him to issue the TC.

(5 Marks)

OR

Write a debate on the topic:

Online Education has affected the routine of the students. Express your views either in favour or against the motion.

Q5) Fill in the blanks with the correct form of the verb given in the brackets: (1/2x4=2 marks)

i. He ------- (forgot) my name, so I reminded him.

ii. She ------- (cook) the meal for over an hour, when we ---------- (arrive).

iii. She --------- (qualify) as a nurse and then got married.

iv. He-------(study)all day long for his exam.

Q6) Re- arrange the sentence into meaningful sentence:

(1/2x4=2 marks)

i. She /interested/that/was /in/proposal/she/said/the

ii. Was/ performance/impressed/with/quite/his/i

iii. there/she/stood/a/time/long/for

iv. and/sky/gorgrous/pleasant/the/morning/pleasant/looked

SECTION C

LITERATURE SECTION

15 MARKS

. **Q7) Read the extract given below and answer any one questions that follows: (3 marks)**

And who art thou? said I to the soft-falling shower,

Which, strange to tell, gave me an answer, as here translated:

I am the Poem of Earth, said the voice of the rain

i) Who is 'I' in the first line?

ii) What is strange according to the poet?

iii) What is the rain compared to?

OR

"We took a short cut to get off the Changtang. Tsetan knew a route that would take us south-west, almost directly towards Mount Kailash. It involved crossing several fairly high mountain passes…

i) Who are "we "here?

ii) From where did they take a short cut?

iii) Why did they take a short cut?

Q8) Answer any three from the following: (3x2=6 marks)

i) Why does the rain call itself 'impalpable'?

ii) Why were Tibetan mastiffs popular in China?

iii) What impression do you form of Crocker Harris on the basis of reading the play?

iv) Compare and contrast childhood and adulthood as expressed in the poem Childhood.

v) What are the reasons that are leading to depletion of our natural resources?

Q9) Answer **any one** in about 120 words: **(3 marks)**

i. Albert Einstein felt the medical certificate almost burn a hole in his pocket. What does the author suggest?

OR

ii. Why was George Pearson surprised when he came home?

Q 10) Write **any one** in about 120 words: (**3 marks)**

i. What was Andrew's dilemma after the delivery? How did he solve the problem?

OR

ii. The play "Mother's Day" is a satirical depiction of the status of the mother in the family.Comment.

KENDRIYA VIDYALAYA SANGATHAN
BENGALURU REGION
SAMPLE QUESTION PAPER- TERM II: SESSION2021-2022
(SET- C)

Class: XI **Max. Marks: 40**

Subject: English **Time: 2 hrs**

General Instructions:

(i) This paper is divided into three sections: A, B and C. All the sections are compulsory.

(ii) Separate instructions are given with each section and question, wherever necessary. Read these instructions very carefully and follow them faithfully.

(iii) Do not exceed the prescribed word limit while answering the questions.

SECTION –A (READING)

Q.1 Read the following passage carefully:
(8 marks)

Donated Organs and their Transportation

(1) Once an organ donor's family gives its consent and the organs are matched to a recipient, medical professionals are faced with the onerous challenge of transporting organs while ensuring that the harvested organ reaches its destination in the shortest possible time. This is done in order to preserve the harvested organs and involves the police and especially the traffic police department.

(2) The traditional method of transporting organs by road is referred to as a "green corridor". This process entails police escorting an ambulance, so as to move around traffic – usually a specific traffic lane is chosen and all signals on the route stay green to ensure it to reach its destination in the shortest possible time. A 'green corridor' is a route cleared and cordoned off by the traffic police to ensure the smooth and steady transportation of harvested organs, on most occasions, to those awaiting a life-saving transplant. Organs tend to have a very short preservation time, such as the heart which has to be harvested and transplanted within four hours or the lungs which can be preserved for only six hours once they are harvested.

(3) The first green corridor in India was created by Chennai Traffic Police in September 2008 when they accomplished their task of enabling an ambulance to reach its destination within 11 minutes during peak hour traffic. That organ saved a nine-year-old girl whose life depended on the transplant.

(4) Similarly, such green corridors have been created by traffic police of various cities such as Pune, Mumbai, Delhi NCR etc. Personnel are stationed at selected points to divert, control and clear the traffic giving way to the ambulance. Apart from this, a motorcade of police vehicles accompanies the ambulance ensuring that it does not face any problems. Delhi Traffic Police provided a green corridor from IGI Airport to Institute of Liver and Biliary Sciences in Vasant Kunj for transportation of a liver. The distance of 14 kms was covered in11 minutes.

(5) Experts point out the lack of a robust system to transport organs to super-speciality hospitals in least possible time. National Organ &Tissue Transplant Organisation (NOTTO), the country's apex organ donation agency, is now framing a proposal to airlift cadaver organs and will send a report to the Union Health Ministry. "Cadaver organs have a short life and so transplant should be done within a few golden hours," Director (NOTTO) expressed, "Therefore, we are preparing a proposal for airlifting organs at any given moment."

(6) Most states do not have enough well-trained experts to retrieve or perform transplant procedures. Also, there is an acute shortage of advanced

healthcare facilities to carry out a transplant. So, it is referred to other big centres in metropolitan cities. Organs retrieved from Aurangabad, Indore, Surat, Pune are sent to Mumbai as these cities do not have super-specialty healthcare centres, informed officials.

(7) "In India, about fifty thousand to one lakh patients are suffering from acute heart failure and need heart transplant at any point of time. In a private set-up, a heart transplant costs ` 15-20 lakhs, which is followed up by postoperative medication of about ` 30,000per month lifelong."

On the basis of your understanding of the above passage, answer <u>any eight</u> of the following questions given below:

(a) What is a 'green corridor'?

(b) Why is smooth transportation of the retrieved organ necessary?

(c) What proposal is NOTTO framing?

(d) What does the author mean by 'a few golden hours'?

(e) How much does a heart transplant cost a patient in a private hospital?

(f) Why are police personnel stationed in the "Green Corridor"?

(g) Why do most states refer organ transplant cases to big hospitals?

(h) What is the onerous task that the author is talking about in Para 1?

(i) Why are organs retrieved from Aurangabad and Indore sent to Mumbai?

(j)Pick out the words from the passage which mean the same as the following:

(i) barrier (para 2)

(ii) achieved / carried out (para 3)

Q.2 Read the passage given below:

(1) People tend to amass possessions, sometimes without being aware of doing so. They can have a delightful surprise when they find something useful which they did not know they owned. Those who never have to change house become indiscriminate collectors of what can only be described as clutter. They leave unwanted objects in drawers, cupboards and attics for years in the belief that they may one day need them. Old people also accumulate belongings for two other reasons, lack of physical and mental energy, and sentiment. Things owned for a long time are full of associations with the past, perhaps with the relatives who are dead, and so they gradually acquire a sentimental value.

(2) Some things are collected deliberately in an attempt to avoid wastage. Among these are string and brown paper, kept by thrifty people when a parcel has been opened. Collecting small items can be a mania. A lady cuts out from newspapers sketches of model clothes that she would like to buy if she had money. As she is not rich, the chances are that she will never be able to afford such purchases. It is a harmless habit, but it litters up her desk.

(3) Collecting as a serious hobby is quite different and has many advantages. It provides relaxation for leisure hours, as just looking at one's treasure is always a joy. One doesn't have to go out for amusement as the collection is housed at home. Whatever it consists of - stamps, records, first editions of books, china-there is always something to do in connection with it, from finding the right place for the latest addition to verifying facts in reference books. This hobby educates one not only in the chosen subject, but also in general matters which have some bearing on it.

(4) There are other benefits also. One gets to meet like-minded collectors to get advice, compare notes, exchange articles, to show off one's latest find etc. So one's circle of friends grows. Soon the hobby leads to travelling, perhaps a meeting in another town, possibly a trip abroad in search of a rare specimen, for collectors are not confined to one country. Over the years one may well become an authority on one's hobby and will probably be asked to give informal talks to little gatherings and then, if successful, to larger audiences.

(a) On the basis of your understanding of the above passage make notes on it, using headings and subheadings. Use recognizable abbreviations (wherever necessary - minimum four) and a format you consider suitable. Also supply an appropriate title to it. (3 marks)

(b) Write a summary of the passage in about 80 words. (2 marks)

SECTION –B

WRITING SECTION AND GRAMMAR

Q.3. You are Romi/Rohit, Sports Captain of Sunshine International School. Your school has organised a marathon to promote a cause. Design a visually appealing **poster** about this in about**50 words.** Include all relevant details.
(3 marks)

OR

You are Sakshi/Pritam of Red Cross Society. Design a poster on blood donation camp in about **50 words.** Include all relevant details.

Q.4. You are awaiting your class XII results. You want information about French language courses at Alliance Franchise. Write a letter to the Director Marizan Road, Okhla, Delhi enquiring about the same.
(5 marks)

OR

Childcare is only a mother's responsibility. Write your view debating **for or against** the topic.

Q.5 Choose the appropriate option to fill up the blanks.
(1/2x4=2marks)

a**.** 1. When I opened my eyes, I ……. a strange sight.
i. saw ii. was seeing iii. have seen

b. Every morning she …….. up early and gets ready for work.
i.is waking ii. wakes iii. has woken

c. We..... Greece next month.
i. visit ii. will visit iii. would visit

d. The moon …….. around the earth.
i. is revolving ii. has revolved iii. revolves

Q.6. Rearrange the words and phrases to form meaningful sentences: (1/2x4=2marks)

i. money/I/any/hardly/have/spend/on/to/clothes
ii. parents/good/are/some/really/counsellors/also
iii. a/doctor/apple/day/an/away/keeps/the
iv. physical/mental/yoga/strength/both/builds/and

SECTION –C

LITERATURE SECTION

Q.7.Read the extract given below and answer the questions that follow: (3 marks)

And forever, by day and night, I give back life to my own origin,
And make pure and beautify it;

i. In what way does the rain help its place of origin?
ii. What is the importance of the word 'forever'?
iii. From where does 'I' rise and where does it go?

OR

Now we were leaving Ravu, Lhamo said she wanted to give me a farewell present. One evening I'd told her through Dainel that I was heading towards Mount Kailash to complete the Kora, and she'd said that I ought to get some warmer clothes.

i. Name the chapter and the author.
ii. What is Kora?
iii. What was the farewell gift?

Q.8 Answer <u>any three</u> from the following: (3x2=6)

i. Why do you think, Frank envies Mr Crocker-Harris'?
ii. Why does the poet get surprised when he gets an answer from the rain?
iii. Why was the narrator sorry to see the miserable plight of Hor?
iv. What does the notice 'The world's most dangerous animal' at a cage in the zoo at Lusaka, Zambia, signify?
v. How does the poem Childhood expose man and present him in his true colours?

Q.9. Answer any one in about 120 words:

(3 marks)

i. "I have done something; oh, God! I've done something real at last." Why does Andrew say this? What does it mean?

OR

ii. What problem does Mrs. Pearson face? Who do you think is responsible for this state of affairs?

Q.10. **Answer any one in about 120 words:**

(3 marks)

i. What was Albert's philosophy of education? Do you subscribe to his view?

OR

ii. Is drama a good medium for conveying a social message? Discuss with reference to the play "Mother's Day".

KENDRIYA VIDYALAYA SANGATHAN
BENGALURU REGION
SAMPLE QUESTION PAPER – TERM- II –SESSION 2021-22

CLASS : XI **SET 2** **MAX.MARKS : 40**
SUBJECT: MATHEMATICS **TIME : 2 HRS**

General Instructions:

1. This question paper contains **three sections – A, B and C**. Each part is compulsory.
2. **Section - A** has 6 **short answer type (SA1) questions** of 2 marks each.
3. **Section – B** has 4 **short answer type (SA2) questions** of 3 marks each.
4. **Section - C** has 4 **long answer type questions (LA)** of 4 marks each.
5. There is an **internal choice** in some of the questions.
6. Q14 is a **case-based problem** having 2 sub parts of 2 marks each.

	SECTION- A	
1	Find the value of cot $(-\frac{15\pi}{4})$	2
2.	Prove that $\tan 40^0 + 2\ \tan 10^0 = \tan 50^0$	2
3	Find n if $16\ {}^{n}P_{3} = 13\ {}^{n+1}P_{3}$ **OR** How many numbers can be formed with the digits 1,2,3,4,3,2,1 so that odd digits always occupy the odd places	2
4	Find all the pairs of consecutive even positive integers both of which are greater than 10 and their sum is less than 50	2
5	Find the equation of the ellipse whose vertices are (0, ± 6) and foci are (0 , ± 4)	2
6	Find the derivative of $\frac{x^2+1}{x-1}$	2

	SECTION - B	
7	Solve graphically $2x + y \geq 4$, $x + y \leq 3$, $2x - 3y \leq 6$ **OR** A manufacturer has 600 liters of 12% solution acid. How many liters of a 30% acid solution must be added to it so that acid content in the resulting mixture will be more than 15% but less than 18%.	3
8	Find the ratio in which the line joining points (4, 8, 10) and (6, 10, -8) is divided by the YZ-plane.	3
9	A bag contains 5red, 4 green and 3 yellow balls. 3 balls are drawn out of it at random, find the probability of drawing exactly 2 red balls	3
10	The probability that at least one of the event A and E occurs is 0.6 If A and E occurs simultaneously with the probability 0.2, then find $P(\bar{A}) + P(\bar{E})$. **OR** In a class 60 students are there. 30 students opted for NCC, 32 opted for NSS and 24 opted for both NSS and NCC .If one of the student is selected at random, find the probability that (1) the student opted for NCC or NSS (2) The student has opted neither NCC nor NSS (3) The student has opted NSS but not NCC	3
	SECTION-C	
11	Prove that $\frac{sinA \ \sin 2A + \sin 3A \sin 6A}{\sin A \cos 2A + sin\ 3A \cos 6A} = \tan 5A$ **OR** Prove that $sin^2 A + sin^2 \left(A + \frac{\pi}{3}\right) + sin^2 \left(A - \frac{\pi}{3}\right) = \frac{3}{2}$	4
12	Find the eccentricity, coordinates of vertices, coordinates of foci and the length of latus rectum of the hyperbola $9y^2 - 4x^2 = 36$.	4

13	Find the derivatives of the following : (i) y = $\frac{x+cosx}{xtanx}$ (ii) y = (ax^2 + $sinx$) ($p + qcosx)^2$	4
14	**CASE-BASED/DATA-BASED** A company has to form a committee of 5 is to be formed out of 6 men and 4 women  Based on the given information , answer the following questions : (1) In how many ways at least 2 women are included in committee (2) Find the number of ways at most 2 women are included in the committee	2 2

KENDRIYA VIDYALAYA SANGATHAN
BENGALURU REGION
SAMPLE QUESTION PAPER-TERM-II-SESSION: 2021-22

CLASS: 11 **SET-3** **MAX.MARKS: 40**

SUBJECT: MATHEMATICS **TIME: 2 Hrs**

General Instructions:

1. This question paper contains **three sections – A, B and C**. Each part is compulsory.
2. **Section - A** has 6 **short answer type (SA1) questions** of 2 marks each.
3. **Section – B** has 4 **short answer type (SA2) questions** of 3 marks each.
4. **Section - C** has 4 **long answer type questions (LA)** of 4 marks each.
5. There is an **internal choice** in some of the questions.
6. Q14 is a **case-based problem** having 2 sub parts of 2 marks each.

SECTION A

1. Evaluate $\cot^2(\pi/6) + \text{cosec}(5\pi/6) + 3\tan^2(7\pi/6)$

2. If $\sin x = 3/5$, $\cos y = -12/13$ where x and y both lie in the second quadrant, find value of $\sin(x+y)$.

3. Solve $3x - 7 > 2(x - 6)$, $6 - x > 11 - 2x$ and represent the solution set graphically on the number line.

4. In how many ways can the letters of PERMUTATIONS be arranged if the vowels are all together?

   OR

   What is the number of ways of choosing 4 cards from a pack of 52 playing cards?

5. Find the equation of the circle with radius 5 whose center lies on the x-axis and passes through the point (4,3)?

6. Find the derivative of $(\sin x+\cos x) / (\sin x-\cos x)$ with respect to x.

SECTION B

7. Solve graphically $5x + 4y \leq 20,\ x \geq 1,\ y \geq 2$

OR

The longest side of a triangle is 3 times the shortest side and the third side is 2cm shorter than the longest side. If the perimeter of the triangle is at least 61cm, find the minimum length of the shortest side

8. Find the point on x axis which is equidistant from the points A(3,2,2) and B(5,5,4)?

9. Three numbers are chosen from 1 to 20. What is the probability that they are not consecutive?

10. If the letters of the word ASSASSINATION are arranged at random, find the probability that the four S`s come consecutively in the word?

OR

A team of medical students doing their internship have to assist during surgeries in a city hospital. The probabilities of surgeries rated at very complex, complex, routine, simple or very simple are respectively 0.15, 0.20, 0.31, 0.26, 0.08. Find the probabilities that a particular surgery will be rated

i) complex or very complex
ii) routine or simple

SECTION C

11. Evaluate $\cos^2 x + \cos^2(x + \pi/3) + \cos^2(x - \pi/3)$

OR

Evaluate $\tan \pi / 8$

12. Find the equation of ellipse which has centre at (0,0), major axis on y-axis and passes through the points (3,2) and (1,6).

13. Find the derivative of x sin(x) with respect to x using first principle.

14. Five students A, B, C, D and E are getting bored of their regular study. They go to the playground and sit in a straight line. Answer the following:
    i) Find the number of ways of sitting if A and D can sit together.
    ii) Find the total number of arrangements if B is sitting in the middle or if E is sitting in the extreme left.

KENDRIYA VIDYALAYA SANGATHAN
BENGALURU REGION
SAMPLE QUESTION PAPER-TERM-II-SESSION: 2021-22

CLASS: 11 **SET-1** **MAX.MARKS: 40**

SUBJECT: MATHEMATICS **TIME: 2 Hrs**

General Instructions:

1. This question paper contains **three sections – A, B and C**. Each part is compulsory.
2. **Section - A** has 6 **short answer type (SA1) questions** of 2 marks each.
3. **Section – B** has 4 **short answer type (SA2) questions** of 3 marks each.
4. **Section - C** has 4 **long answer type questions (LA)** of 4 marks each.
5. There is an **internal choice** in some of the questions.
6. Q14 is a **case-based problem** having 2 sub parts of 2 marks each.

	SECTION-A
1.	Find the value of $\cos(105)^0$
2.	In the first four papers each of 100 marks, Rishi got 95,72,73,83 marks. If he wants an average of greater than or equal to 75 marks and less than 80 marks, find the range of marks he should score in the fifth paper.
3.	If ${}^8C_r - {}^7C_3 = {}^7C_2$, find r.
	(OR)
	How many four digit numbers divisible by 4 can be made with the digits 1, 2, 3, 4, 5 if the repletion of digits is not allowed.
4.	Prove that $\tan 70^0 = \tan 20^0 + 2\tan 50^0$
5.	Find the equation of the circle whose centre is (1, 2) and which passes through the point (4, 6).
6.	Find the derivative of $\frac{1}{x^2}$ w.r.to x by first – principle.
	SECTION-B
7	Solve graphically : $x + 2y \le 8, 2x + y \ge 2, x - y \le 1, x \ge 0, y \ge 0$.
	(OR)
	The longest side of a triangle is three times the shortest side and the third side is 2cm shorter than the longest side if the perimeter of the triangle at least 61 cm, find the minimum length of the shortest side.
8	Find the ratio in which the line joining points (1, 2, 3) and (-3, 4, -5) is divided by the xy-plane. Also find the coordinates of the point of division.
9	A fair coin is tossed four times, and a person wins Re.1 for each head and loses Rs.1.50 for each tail that turns up. From the sample space calculate how many

	different amounts of money you can have after four tosses and the probability of having each of these amounts.
10.	A and B are two events such that $P(A) = 0.54, P(B) = 0.69$ and $P(A \cap B) = 0.35$. Find (i) $P(A \cup B)$ (ii) $P(A' \cap B')$ (iii) $P(A \cap B')$
	(OR)
	Two students Anil and Ashima appeared in an examination. The probability that Anil will qualify the examination is 0.05 and that Ashima will qualify the examination is 0.10. The probability that both will qualify the examination is 0.02. find the probability that (i) Both Anil and Ashima will not qualify the examination. (ii) Only one of them qualifies the examination.
	SECTION-C
11.	Prove that $\tan 4x = \dfrac{4\tan x - 4\tan^3 x}{1 - 6\tan^2 x + \tan^4 x}$
	(OR)
	Prove that $\cos^2 A + \cos^2\left(A + \dfrac{2\pi}{3}\right) + \cos^2\left(A - \dfrac{2\pi}{3}\right) = \dfrac{3}{2}$.
12.	Find the eccentricity, coordinates of foci, length of latus-rectum, lengths of major and minor axes of the conic: $25x^2 + 16y^2 = 1600$
13.	Find the derivatives of the following: (i) $(ax + b)^m (cx + d)^n$ (ii) $\dfrac{x\tan x}{\sec x + \tan x}$
14.	**CASE-BASED/DATA-BASED** Class 11 students of a school discussed the topic "Permutation" through online Google meets. They took the word "**DAUGHTER**" for discussion. You, being a class 11 student, give answers for the following questions. 
	(i) Find the Number of 8 letter words in which all vowels come together.
	(ii) Find the number of 05 letter words; each word should contain 02 vowels and 03 consonants.

KENDRIYA VIDYALAYA SANGATHAN
BENGALURU REGION
SESSION ENDING EXAMINATION 2021-22

SUBJECT: HEALTH AND PHYSCIAL EDUCATION **MAX.MARK:35**

CLASS: XI **SET-3** **Time : 2 hr**

General Instruction:

1. **There are three sections in the Question paper namely Section A, Section B and Section C.**
2. **Section A consists of 9 questions amongst which 7 questions have to be attempted each question carries 2 marks and should have 30-50 words.**
3. **Section B consists of 5 questions amongst which 3 questions have to be attempted each question carries 3 marks and should have 80-100 words.**
4. **Section C consists of 4 questions amongst which 3 questions have to be attempted each question carries 4 marks and should have 100-150 words**

SECTION A

1. What is Khelo India program what are the objectives.
2. Explain the role of IOC?
3. Explain the terms is load and adaptation in sports training?
4. What if flexibility and explain the types of flexibility?
5. What do you mean by hip waist- ratio?
6. What is surfing?
7. Write any four importance of sports psychology?
8. What are corrective asanas name any two and their benefits
9. Discuss the concept of inclusive physical education.

SECTION B

10. Explain the terms center of gravity and equilibrium. Briefly explain the application in sports.
11. What is a joint, explain the major types of joints? Mention the types of movements possible in each joint.
12. Explain the Harvard step test in detail along with procedure and scoring.
13. Elucidate the steps to prevent sports injuries
14. Discuss the elements of yoga

SECTION C

15. Explain Sheldon's somatotypes in detail and briefly explain the health carter measurement system in somatotype.
16. Explain the performance enhancing substance in sports in detail. Briefly explain their side effects.
17. Explain the term warming up. Explain the benefits, types and principles of warming up
18. Explain the concept of health-related fitness

KENDRIYA VIDYALYA SANGATHAN
BENGALURU REGION
SAMPLE QUESTION PAPER – TERM – II; SESSION 2021-22

Class: XI **Max. Marks: 35**

Subject: Physical Education **SET-2** **Time: 2 Hrs.**

GENERAL INSTRUCTIONS

1) **There are three sections in the Question paper namely Section A, Section B and Section C.**
2) **Section A consists of 9 questions amongst which 7 questions have to be attempted each question carries 2 marks and should have 30-50 words.**
3) **Section B consists of 5 questions amongst which 3 questions have to be attempted each question carries 3 marks and should have 80-100 words.**
4) **Section C consists of 4 questions amongst which 3 questions have to be attempted each question carries 4 marks and should have 100-150 words.**

SECTION A

1) Explain the role of a leader in Physical Education.

2) Brief any two objectives of Adapted Physical Education.

3) What are Diuretics and give its side effects?

4) What is the motto of Paralympic Games and explain its mission?

5) Give the meaning of Asana and its types.

6) What is Rock Climbing? Name some required equipment for rock climbing.

7) What is Kriya? Explain Neti kriyas?

8) What are the problems faced by adolescents? Explain any two.

9) Explain Blood doping and its types.

SECTION B

10) Differentiate between growth and development.

11) Explain River rafting and its different grades.

12) Define Pranayama and brief the types of pranayama.

13) Explain the role of occupational therapist for CWSN.

14) Explain the benefits and side effects of anabolic steroids.

SECTION C

15) Explain the principles of sports training.

16) Explain 8 Elements of Yoga.

17) Give the qualities of a good leader.

18) Give aims and objectives of Adapted Physical Education.

KENDRIYA VIDYALAYA SANGATHAN
BENGALURU REGION
SAMPLE QUESTION PAPER- TERM II: SESSION 2021-22.

CLASS: XI MAX.MARKS: 35
SUB: PHYSICAL EDUCATION (048) SET-1 TIME: 2hrs

General instructions:

1. There are THREE sections in the Question paper namely Section A, B, & C.
2. Section A consists of 09 questions amongst which 07 questions have to be attempted each question carries 2 marks and should have 30-50 words.
3. Section B consists of 05 questions amongst which 03 questions have to be attempted each question carries 3 marks and should have 80-100 words.
4. Section C consists of 04 questions amongst which 03 questions have to be attempted each question carries 4 marks and should have 100-150 words.

Q. No	SECTION-A	Marks
1	What is the Aim of the Adaptive Physical education?	1+1
2	Briefly discuss about special Olympic Bharat.	1+1
3	Discuss the role of a leader in brief.	2
4	What do you mean by pranayama? Mention the types of pranayama.	1+1
5	What is the Mission of the Special Olympics Bharat?	2
6	How many elements of yoga are there? Explain any two.	1+1
7	A leader in the field of physical education should have high motor capacity. Discuss	1+1
8	What is trekking? Discuss various types of trekking.	1+1
9	Briefly mention the importance of yoga. And mention any two asanas	1+1
	SECTION-B	
10	Write any three qualities of a leader in detail.	1+1+1

11	Discuss the role of physiotherapist for students with special needs.	3
12	Explain the procedure and benefits of Pavanmukthasana.	1+2
13	Describe any three objectives of adventure sports.	1+1+1
14	Describe some organizations promoting adaptive sports.	3
	SECTION-C	
15	What are the objectives of adventure sports? Explain any five in detail.	1+3
16	Discuss the objectives of adaptive physical education in detail.	2+2
17	What do you mean by yoga? Explain its importance in daily life.	2+2
18	Define leadership. Explain the leadership qualities in physical education.	2+2