Self Practice Paper (SPP)

CH₃-CH-CH₂-CH- Radical has IUPAC name-1. ĊH, ĊH, (1) 4-Methyl pentyl (2) 1,3-Dimethyl butyl (3) 1,4-Dimethyl butyl (4) 3-methyl pentyl 2. In the given formula G is an unknown group. What will be the group G, which can change the word root (parent carbon chain length) of above structure? $(3) - CH_2 - CH_2 - CH_3$ $(1) - CH = CH_2$ (2) –Cl (4) -COOH In compound $HC = C - CH_2 - CH = CH - CH C_2 - C_3$ bond is the type of :-3. (1) sp - sp² (2) sp³ - sp³ (3) sp - sp³ (4) sp² - sp³ The IUPAC name of H-C-CN is 4. (2) 2-Oxo ethane nitrile (3) Cyano ethanal (4) Formonitrile (1) Cyano methanal OH 5. has the IUPAC name-(1) Cyclohex-1-en-3-ol (2) Cyclohex-1-en-6-ol (3) Cyclohex-2-en-1-ol (4) Cyclohex-5-en-1-ol 6. The group of heterocyclic compounds is : (1) Phenol, Furan (2) Furan, Thiophene (3) Thiophene, Phenol (4) Furan, Aniline 7. The correct IUPAC name of CH₂-C-OCOCH₂ (1) Methyl ethanoate (2) Aceto ethanoate (3) Ethanoic anhydride (4) Ethanoyl ethanoate Which of the following pairs of trivial names and IUPAC names are incorrectly matched :-8. (1) Isohexane 2-Methyl hexane (2) Isooctane 2,2,4-Trimethyl pentane (3) Isobutyraldehyde 2-Methyl propanal (4) Isobutylene 2-Methyl propene 9. The IUPAC name of the hydrocarbon CH=CCH=CH-CH=CH₂ is (1) Hexa-3, 5-dien-2-yne (2) Hexa-1, 2-dien-5-yne (3) Hexa-1, 3-dien-5-yne (4) Hexa-3, 5-dien-1-yne

10. CH₃-O-C-CH₂-COOH

The IUPAC name of the above compound is :-

- (1) 2-Acetoxy ethanoic acid
- (3) 3-Methoxyformyl ethanoic acid
- (2) 2-Methoxycarbonyl ethanoic acid
- cid (4) 2-Methoxyformyl acetic acid
- 11. The correct IUPAC name of the following compound is :

- (1) 2-Bromo-5-methylbicyclo[5:4:0]heptane
- (3) 3-Bromo-6-methylbicyclo[3.2.0]heptane
- (2) 3-Bromo-7-methylbicyclo[3.2.0]heptane
- (4) 2-Methyl-6-bromobicyclo[2.3.0]heptane
- 12. Which of the following is heterocyclic compound ?





13. IUPAC name of the following molecule is :



- (1) 4-Hydroxy methyl-1-carboxy cyclohex-3-ene
- (2) 4-Hydroxy methyl cyclohex-3-ene carboxylic acid
- (3) 1-Hydroxy methyl cyclohexene-4-carboxylic acid
- (4) 4-(Hydroxy methyl cyclohex-3-enyl) methanioic acid
- **14.** The IUPAC name of compound

NH₂CO–CH₂–CH₂–ĊH–CH₂–CH₂–CH₂–CH₃

- (1) 1, 3–Dicarbamoylheptane (2) 4-Carbamoyloctane
- (3) 2-Butyl pentanediamide (4) 2-Butyl pentane diamino ketone
- **15.** The correct IUPAC name of the following compound is $CH_3 CH CH CH_2 CH_3$

$$CH = CH = CH_2^2$$

 $| | |$
 $CH_2 CH = CH_3$
 $| | |$
 $CH_3 CH_3$

(1) 4–Ethyl–3,5–dimethylhexane

- (3) 3-Isopropyl-4-methylhexane
- (2) 2,4–Dimethyl–3–ethylhexane
- (4) 3-Ethyl-2,4-dimethylhexane

16. Which IUPAC name is incorrect for the following compounds ?

17. What is the structure of 4-Methylhex-5-en-3-ol.





- **18.** A compound having straight chain of five carbon atoms, It has one ketone group and two methyl groups on different-different carbon atoms. The IUPAC name of the compound is :
 - (1) 2,4-Dimethyl-3-oxopentane
 - (3) 3,4-Dimethyl-2-oxopentane
- (2) 2,4-Dimethylpentan-3-one
- (4) 3,3-Dimethylpentan-2-one
- **19.** IUPAC Name of given compound is:



- (1) 3-Amino-6-bromocyclohexane-1-carboxylic acid
- (2) 2-Bromo-5-aminocyclohexane-1-carboxylic acid
- (3) 5-Amino-2-bromocyclohexanecarboxylic acid
- (4) 4-Bromo-3-carboxycyclohexanamine
- **20.** The IUPAC name of $CH_3-CH_2-N-CH_2-CH_3$ is :
 - ĊH₃
 - (1) N-Methyl-N-ethylethanamine
 - (3) N-Ethyl-N-methylethanamine
- (2) Diethyl methanamine
- (4) Methyl diethylethanamine



(1) N-Deutero-N-formylbenzenamine(3) N-Deutero-N-phenylmethanamide

22. Correct IUPAC name of given ester is:

$$\begin{array}{c} \mathsf{CH}_3-\mathsf{CH}_-\,\mathsf{C}_-\,\mathsf{O}-\mathsf{C}_2\mathsf{H}_5\\ | & ||\\ \mathsf{Br} & \mathsf{O} \end{array}$$

(1) Ethyl 2-bromopropanoate

(3) Ethyl 1-bromoethanoate

(2) N-Phenylamino-N-deuteromethanal

(4) N-Deuterobenzene carboxamide

- (2) 2–Bromoethylpropanoate
- (4) 2–Bromo ethoxyethanecarboxylate



34.	What is the number of all (structurally isomeric) alkynes with molecular formula C_6H_{10} . (1) 5 (2) 6 (3) 7 (4) 8									
35.	How many aromatic be	O ? (4) 3								
36.	The compound $H_2C=C$	The compound $H_2C=CH-CH_2-N$ is an : CH ₃								
	(1) alkyne, 3º amine	(2) alkene, 2º amine	(3) alkene, 3º amine	(4) alkyne, 2º amine						
37.	In which compound all (1) $CH_2 = C = O$	the carbon atoms have s (2) $(CH_3)_2CO$	same hybridisation ? (3) $CH_2 = CHCN$	(4) CH ₂ =CH–CH=CH ₂						
38.	How many structures of (1) 3	of C ₃ H ₆ Cl ₂ are possible ? (2) 4	(3) 5	(4) 6						
39.	How many structures a (1) 2	are possible containing a (2) 3	romatic ring, having mole (3) 4	ecular formula C ₈ H ₁₀ ? (4) 5						
40.	How many structures a (1) 3	are possible containing a (2) 4	romatic ring, having mole (3) 5	ecular formula C ₇ H ₅ OCl? (4) 6						
41.	Which is correct for the	e following structures ?								
	$CH_3-CH_2-CH_2-CH_2$	$H_2 - CI$ $CH_3 - C - CH_3$ CI		$\frac{1}{IV}$ CH ₂ – Cl						
	I (1) I & II are chain isor (3) II & IV are function	II ners al isomers	(2) I & III are functiona (4) III & IV are positior	Il isomers n isomers						
42.	The number of isomers of dibromobiphenyl (Biphenyl: $C_1H_2 - C_2H_2$) is									
	(1) 8	(2) 10	(3) 12	(4) 4						
43.	Which of the following pair of compounds is not functional isomers ?									
	(1) (2) (2) (2) (2) (2) (2) (3)									
	(3) OH and	~~~	(4) and							
44.	Find the relation betwe	en	D							
	(1) Chain Isomers	(2) Position Isomers	(3) Functional Isomers	(4) Metamers						
45.	Total number of struc parent chain are :	tural isomers with moleo	cular formula $C_8 H_{18}$ that	contain 7 carbon atoms in the						
	(1) 3	(2) 4	(3) 5	(4) 6						

	S F	P A	nsv	/ers									
1.	(2)	2.	(4)	3.	(3)	4.	(2)	5.	(3)	6.	(2)	7.	(3)
8.	(1)	9.	(3)	10.	(2)	11.	(3)	12.	(3)	13.	(2)	14.	(3)
15.	(4)	16.	(2)	17.	(2)	18.	(2)	19.	(3)	20.	(3)	21.	(3)
22.	(1)	23.	(2)	24.	(2)	25.	(2)	26.	(2)	27.	(2)	28.	(2)
29. 36	(3)	30. 37	(4) (4)	31. 38	(4) (2)	32. 30	(3)	33. 40	(1) (2)	34. 11	(3)	35. 42	(2)
43.	(4)	44.	(3)	45.	(1)	55.	(0)	40.	(2)	41.	(')	72.	(0)
				-									
	SPP Solutions												
	ОН												
6.	(i) Ph	enol) - hor	nocyclic,	aromat	ic	(ii) Fu	ıran 🗐] - heter	ocyclic, a	aromatio	;	
	Ň, NH ₂												
	(iii) Thiophene Line heterocyclic aromatic (iv) Apiline homocyclic aromatic												
	D. ³	4 5											
11.	$\operatorname{Br} \xrightarrow{\sim}_{\gamma} \xrightarrow{1}_{7}$												
	IUPA	IUPAC name : 3-Bromo-6-methylbicyclo[3.2.0]heptane.											
12.	Hetero atom is present in cyclic chain.												
18.	1	Ϋ́ · ·	5		OR	1 2	3 4 5						
	2,4-D	imethylp	pentan-3	-one		3,4-D	imethylp	entan-2	-one				
		D											
21.	H–C	 -N-P	'n										
	N-Deutero-N-phenylmethanamide.												
	~ /		\mathbf{N}				I				1		
24.	\bigwedge	Í	$\mathbf{\tilde{\mathbf{C}}}$	l	\times	ו	\frown		\bigwedge		\int		
• -	\sim	. .			\rightarrow	·	\sim		\mathbf{i}		\sim	\sim	
25.	Carbo	on skelte	on is diffe	erent in t	ooth cor	npounds							
26		\bigcap°	•H										
20.	H₃C [∽]	H,C ⁻ CH,											
	This compound is functional isomer of the given compound.												

32. (i)
$$CH_3 - O - CH_2 - CH_2 - CH_2 - CH_3$$
 (ii) $CH_3 - O - CH - CH_2 - CH_3$ (iii) $CH_3 - O - CH_2 - CH_3$ (iii) $CH_3 - O - CH_2 - CH_3$ (iv) $CH_3 - O - CH_2 - CH_3$ (v) $CH_3 - CH_2 - O - CH_2 - CH_3$ (vi) $CH_3 - CH_2 - O - CH_3$ (vi) $CH_3 - CH_3 - CH_3$ (vi) $CH_3 - CH_3$ (v

33. (i) $CH_3 - CH_2 - CH_2 - CH_2 - CHO$ (ii) $CH_3 - CH_2 - CH - CHO$ (iii) $CH_3 - CH_2 - CHO$ (iv) $CH_3 - CH_2 - CHO$ (iv) $CH_3 - CH_2 - CHO$ (iv) $CH_3 - CH_2 - CHO$



36. N atom is attached with 3 carbon atoms so it is 3° amine.

37. $CH_2 = C = O$; $CH_3 - C_{sp^2} = CH_3$; $CH_2 = CH_2 = CH_2 = CH_2$; $CH_2 = CH_2 = CH_2$









- 41. (1) I and II are chain isomers.
 - (2) There is no relation between I and II
 - (3) There is no relation between II and IV
 - (4) III and IV are chain isomers.

