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* **IN THE HIGH COURT OF DELHI AT NEW DELHI**

+ **C.A.(COMM.IPD-PAT) 31/2024**

MITSUBISHI GAS CHEMICAL COMPANY, INC.Appellant
Through: Mr. Kshitij Saxena, Mr. Saransh
Vijayvargiya and Mr. Daksh Oberoi, Advocates.

versus

THE DEPUTY CONTROLLER OF PATENTS AND DESIGNS
.....Respondent
Through: Mr. Jagdish Chandra, CGSC with
Mr. Neeraj and Ms. Maanya Saxena, Advocates.

CORAM:
HON'BLE MS. JUSTICE JYOTI SINGH

ORDER
28.03.2026

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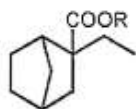
1. Matter is taken up today as 02.03.2026 was declared holiday in light of Notification No. 64/G-4/Genl.-I/DHC dated 27.02.2026.
2. This appeal is filed on behalf of the Appellant under Section 117A of the Patents Act, 1970 ('1970 Act') laying a challenge to impugned order dated 29.02.2024, whereby Respondent has refused Patent Application No. 202117021605 for invention titled "*CARBOXYLIC ACID ESTER COMPOUND, PRODUCTION METHOD THEREOF, AND FRAGRANCE COMPOSITION*".
3. To the extent necessary, the facts as pleaded in the appeal are that Appellant filed patent application no. 202117021605 in Indian Patent Office on 13.05.2021 in respect of invention titled "*CARBOXYLIC ACID ESTER COMPOUND, PRODUCTION METHOD THEREOF, AND FRAGRANCE COMPOSITION*". On 22.09.2022, Appellant filed Request for Examination and on 06.10.2022 First Examination Report ('FER') was issued to which reply was filed by the Appellant on 27.02.2023. Hearing notice was issued



on 12.07.2023 scheduling the hearing for 11.09.2023, whereafter post-hearing written submissions were filed on 19.09.2023 along with revised claims. By order dated 29.02.2024, Respondent rejected the application for grant of patent under Section 2(1)(ja) of the 1970 Act for lack of inventive step in view of prior arts D1: WO 2012/063433 A1; D2: JP 578757 A; D3: JPS60190738 A; and D4: WO 2018/051776 A1 as also on ground of non-patentability under Section 3(d).

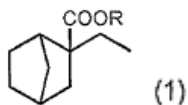
4. Appellant states that the present invention relates to a novel carboxylic acid ester compound, a method for producing the same and a fragrance composition containing the said compound used as raw material for perfumes. The revised claims filed by the Appellant were as follows:-

“[Claim 1] A carboxylate compound represented by Formula (1):

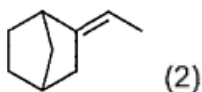


(1) where R is an ethyl group, an n-propyl group, or an isopropyl group, wherein carboxylate compound represented by formula (1) is an exo-isomer.

[Claim 2] A method for producing a carboxylate compound represented by formula (1), which comprises reacting the compound represented by the formula (2) with carbon monoxide in the presence of hydrogen fluoride, and then reacting with ethanol, n-propanol or isopropanol.



where R is an ethyl group, an n-propyl group, or an isopropyl group, wherein carboxylate compound represented by formula (1) is an exo-isomer.



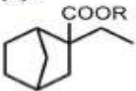
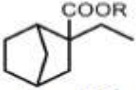
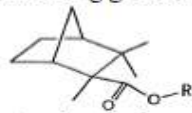
[Claim 3] The compounds of claim 1 as and when used in the preparation of composition.”

5. Learned counsel for the Appellant questions the impugned order on multiple grounds. It is submitted that Respondent has failed to appreciate the



amended set of claims were filed on 19.09.2023 along with the written submissions against the objections raised in the hearing notice under Sections 2(1)(ja) and 3(d) of the 1970 Act and was thus not justified in holding that amended claims 1-3 did not fulfil the requirements of the invention. Further, Respondent failed to appreciate the differences in the prior arts D1 to D4 and the claimed invention, both in terms of structure and resultant aroma, which were placed before the Respondent in a tabular format as part of post-hearing written submissions as follows:-

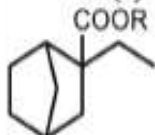
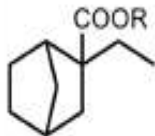
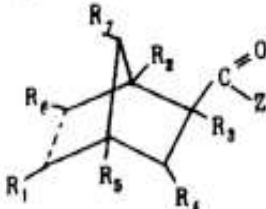
Differences between D1 and the Present Invention

Present Invention	Prior art Document D1: WO 2012/063433 A1
It discloses a carboxylate compound represented by Formula (1):  (1) where, R is an ethyl group, a n-propyl group, or an isopropyl group, wherein the carboxylate compound represented by Formula (1) is an exo-isomer. It further discloses a method for producing a carboxylate compound represented by Formula (1) by reacting a compound represented by Formula (2) with carbon monoxide in the presence of hydrogen fluoride, and then reacting with ethanol, n-propanol or isopropanol:  (1) where, R is an ethyl group, a n-propyl group, or an isopropyl group, wherein the carboxylate compound represented by Formula (1) is an exo-isomer.  (2) Structural differences: In this invention, an ester group and an ethyl group are on 2nd position.	It discloses a carboxylate compound represented by the following general formula (1):  (1) wherein R is an alkyl group having two to four carbon atoms. It further discloses a method of producing a carboxylate compound represented by the following general formula (1):  (1) wherein R is an alkyl group having two to four carbon atoms, which comprises reacting 2,2-dimethyl-3-methylene bicyclo[2.2.1]heptane represented by the following formula (2):  (2) with carbon monoxide and subsequently with an alcohol having two to four carbon atoms in the presence of hydrogen fluoride. Structural differences: In D1, an ester group and a methyl group are on 2nd position. In D1, dimethyl group is on 3rd position. Difference in aroma

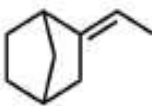


In this invention, 3rd position is <u>unsubstituted</u> (hydrogen). Difference in aroma: The compounds of this invention have a fruity aroma, an herbal aroma and a woody aroma.	In D1, the compound has a brisk pine-like odor.
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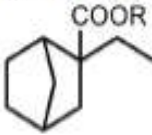
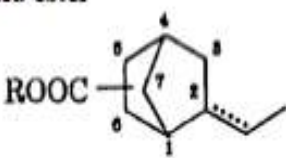
Differences between D2 and the Present Invention

Present Invention	Prior art Document D2: JP 578757 A
It discloses a carboxylate compound represented by Formula (1):  (1) where, R is an ethyl group, a n-propyl group, or an isopropyl group, wherein the carboxylate compound represented by Formula (1) is an exo-isomer. It further discloses a method for producing a carboxylate compound represented by Formula (1) by reacting a compound represented by Formula (2) with carbon monoxide in the presence of hydrogen fluoride, and then reacting with ethanol, n-propanol or isopropanol:  (1)	It describes a carbonyl norbornane compound  Further, it discloses compounds having the generic structure: wherein the dashed line is either a carbon-carbon single bond or a carbon-carbon double bond and each of R₁, R₂, R₃ and R₄ represents hydrogen or methyl with the proviso that one of R₂ and R₁ is methyl and the other of R₁ or R₂ is hydrogen and R₃ and R₄ are not both methyl; and wherein R₅ represents C₁-C₄ alkyl are disclosed.

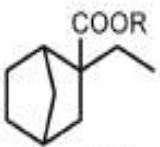
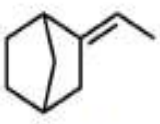


where, R is an ethyl group, a n-propyl group, or an isopropyl group, wherein the carboxylate compound represented by Formula (1) is an exo-isomer.  (2) Structural differences: In this invention, R³ is an ethyl group. Difference in aroma: The compounds of this invention have a fruity aroma, an herbal aroma and a woody aroma.	Structural differences: In D2, R³ is hydrogen or a methyl group. Additionally, Example 7 is only the compound having methyl group as R³. Other compounds have hydrogen as R³. Difference in aroma: The compound of Example 7 in D1 has green, mint, borneol and spice like scent.
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Differences between D3 and the Present Invention

Present Invention	Prior art Document D3: JPS60190738 A
It discloses a carboxylate compound represented by Formula (1):  (1) where, R is an ethyl group, a n-propyl group, or an isopropyl group, wherein the carboxylate compound represented by Formula (1) is an exo-isomer. It further discloses a method for producing a carboxylate compound represented by Formula (1) by reacting a	It describes a bicyclic carboxylic acid ester  More specifically, it discloses compound of formula I (ROOC- is substituted at the 5- or 6- position of the norbornane ring; R is 1W3C alkyl; the dotted line is single or double bond). EXAMPLE: Methyl 2-ethylidenebicyclo[2.2.1]heptane-5-(or 6)-carboxylate. PREPARATION: For example, 2-ethylidene-5(or 6)-

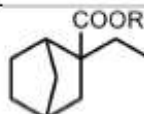
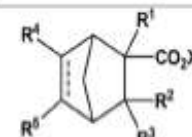
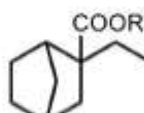
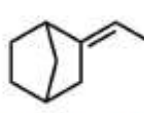


compound represented by Formula (2) with carbon monoxide in the presence of hydrogen fluoride, and then reacting with ethanol, n-propanol or isopropanol:  (1) where, R is an ethyl group, a n-propyl group, or an isopropyl group, wherein the carboxylate compound represented by Formula (1) is an exo-isomer.  (2) Structural differences: In this invention, R³ is an ethyl group. In this invention, an ester group and an ethyl group are on <u>2nd position</u>. Difference in aroma: The compounds of this invention have a fruity aroma, an herbal aroma and a woody aroma.	formylbicyclo[2.2.1]heptane as a starting material is oxidized with an oxidizing agent, e.g. chromic acid, etc. to form a carboxylic acid of formula III, which is then esterified by the well-known method to afford the aimed compound of formula I (the dotted line is double bond) Structural differences: In D3, an ester group is on <u>5th or 6th position</u>. Difference in aroma: The compound of D3 has herbal, vegetation-like green scent.
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Differences between D4 and the Present Invention

Present Invention	Prior art Document D4: WO 2018/051776 A1
It discloses a carboxylate compound represented by Formula (1):	It discloses a compound represented by formula (1);



 (1) where, R is an ethyl group, a n-propyl group, or an isopropyl group, wherein the carboxylate compound represented by Formula (1) is an exo-isomer. It further discloses a method for producing a carboxylate compound represented by Formula (1) by reacting a compound represented by Formula (2) with carbon monoxide in the presence of hydrogen fluoride, and then reacting with ethanol, n-propanol or isopropanol:	 (Wherein R^1, R^2 and R^3 are independently hydrogen or a methyl group, X is an alkyl group having 1 to 4 carbon atoms, R^4 and R^5 are independently hydrogen or a —CHO group, — — — — = = = = Is a single bond or a double bond. It also discloses a fragrance composition containing compound of formula 1
 (1) where, R is an ethyl group, a n-propyl group, or an isopropyl group, wherein the carboxylate compound represented by Formula (1) is an exo-isomer.  (2) Structural differences: In this invention, R^1 is an ethyl group. In this invention, R^1 is an ethyl group, a n-propyl group, or an isopropyl group. Difference in aroma:	Structural differences: In D4, R^1 is hydrogen or a methyl group. In D4, X is an alkyl group having 1-4 carbon atoms. However, in Working Examples of D4, X is <u>only</u> a methyl group. Difference in aroma: In Working Example 1 of D4, the compound has a fruity note and a marine note. In Working Example 2 of D4, the compound has a floral green note and a fruity note. In Working Example 3 of D4, the compound has a herbal green-like and a fruity note.
The compounds of this invention have a fruity aroma, an herbal aroma and a woody aroma. Specifically, there is no description of "woody aroma" in D4. Therefore, it is unexpected that the compounds of an amended claim 1 have not only a fruity aroma and an herbal aroma but also a woody aroma.	



6. Explaining the differences, it is urged that compounds of present invention can impart not only a fruity aroma and an herbal aroma but also a woody aroma. Cited prior arts D1 to D4 do not disclose any compounds claimed in the amended claims. Compound of formula (II) used in the present invention to prepare compound of formula (I) contains a vinyl group at position 2, whereas compound of formula (II) used in D1 to prepare its corresponding compound of formula (I) contains a methyl group at position 1. Therefore, the starting materials are different and consequently the product obtained in the present invention has an ester group and an ethyl group at the 2nd position with the 3rd position remaining unsubstituted (Hydrogen). As a result, the compounds exhibit fruity/herbal/woody aroma. On the contrary, in D1 the ester group and the methyl group are located at the 2nd position and a dimethyl group is present at the 3rd, leading to the compounds exhibiting a brisk pine-like odour.

7. It is further urged that compound of claim 1 is an exo-isomer which is preferable from the perspective of production ease and aroma property. The compounds of Working Examples include 90.3%, 89.4% and 87.9% of exo-isomer but there is no description or suggestion of an exo-isomer in D2-D4 and in fact, compounds of D2 mainly have a fruity aroma. Compounds of D3 have an herbal green aroma while those of D4 are mainly fruity. It is thus evident that D1-D4 were wrongly cited and taken into consideration by the Respondent to refuse the present application. Moreover, none of the prior arts is the closest prior art since all the prior art citations fall in category 'A' as identified by the International Search Report ('ISR').

8. It is argued that the Respondent while rejecting the application under Section 3(d) observed that the subject matter of claims 1-3 is directed to the derivatives/substituted products of the known compounds of D1-D4, which



does not result in enhancement of efficacy of the compound. Process claimed in claim 2 was also considered as mere use of known process i.e., disclosed in D1 and it was held that since the Appellant failed to provide any improved efficacy data over the cited prior arts, the application was not patentable under Section 3(d). This erroneous interpretation of the Respondent is unjustified in light of the major differences highlighted by the Appellant between the invention and the prior arts as also data from the sensory evaluation conducted by four panellist with five or more years of experience, which is detailed in the appeal.

9. Mr. Jagdish Chandra, learned CGSC appearing for the Respondent along with Ms. Saroj Kumar, Joint Controller of Patents and Designs submits that there is no infirmity in the impugned order. The patent application was examined under Sections 12 and 13 of the 1970 Act and objections were raised under Section 2(1)(ja) in view of prior arts D1 to D4 as also under Section 3(d) and (e). Appellant was required to respond to each objection in the FER, which it did and on examination of the reply a hearing notice was issued. After hearing, post-hearing written submissions were filed by the Appellant with revised claims, whereafter objection under Section 3(e) was waived.

10. It is submitted that Section 2(1)(ja) mandates that an invention must demonstrate: (a) technical advance or; (b) economic significance or; (c) must not be obvious to the person skilled in the art. Respondent rightly concluded that claimed invention was obvious in light of D1-D4, which collectively disclosed: (a) Norbornane carboxylic acid esters; (b) Carbonylation followed by esterification; (c) Use of alkyl alcohols (methyl, ethyl, propyl, butyl); (d) Identical reaction conditions and parameters; and (e) Fragrance compositions having fruity, pine-like or floral



notes and the modifications claimed by the Appellant were confined merely to change in the alkyl substituents of the known norbornane structure, which constitutes obvious homologous variations that a person skilled in the art would readily deduce from the teachings of D1-D4.

11. It is further argued that D1 discloses a carboxylic acid ester represented by formula (1), a method for producing the same and a fragrance composition thereof (claims 1-2). Further, D1 discloses a method (claim 3) for producing carboxylic acid ester compound represented by general formula (1), where in the presence of hydrogen fluoride, 2,2-dimethyl-3-methylenebicyclo [2,2,1] heptane represented by formula (2) is reacted with carbon monoxide and then with an alcohol having 2 to 4 carbon atoms. D1 also describes the steps for producing the novel carboxylic acid ester compound and paragraph 0019 of D1 discloses that the carboxylate compound of the invention can be produced industrially and Appellant was aware of D1 as it belongs to the same company.

12. It is urged that D2 discloses carboalkoxy-alkyl norbornanes and a process for preparing such compounds, including methyl, ethyl and butyl esters of mono or dimethyl norbornane-2-carboxylic acid, while D3 describes a bicyclic carboxylic acid ester such as methyl 2-ethylidenebicyclo [2.2.1] heptane-5 (or 6) carboxylate and ethyl 2-ethylidenebicyclo [2.2.1] heptane-5 (or 6) carboxylate, used in perfume compositions possessing herbal, grassy, woody-green and fruity fragrances. D4 describes a norbornane 2-carboxylic acid esters, including methyl esters having apricot-like fruity fragrances with floral notes and therefore, person skilled in the art could easily modify the alkyl substituent to obtain compound of formula (1) using teachings of D2-D4.



13. On Section 3(d), it is argued that the provision bars patentability of new forms of known substances which do not result in enhancement of known efficacy. The claimed compounds are derivative of already known norbornane carboxylate esters and differ only in alkyl substituents already disclosed in the prior arts and Appellant failed to disclose any data showing enhanced fragrance persistence, improved olfactory performance, superior technical effect or any quantifiable enhancement over D1-D4.

14. Heard learned counsels for the parties.

15. Respondent has refused the patent application on grounds of lack of inventive step under Section 2(1)(ja) and non-patentability under Section 3(d). The gist of reasoning of the Respondent is that the scheme of preparation of carboxylic acid ester compound in the claimed invention and D1 completely overlaps with respect to the reagents as also the method steps and additionally, the process parameters are also the same which includes pressure of carbon monoxide during the reaction and reaction temperature of carbonylation reaction and esterification reaction. Respondent was of the view that D1 also reports formation of fruity composition as in the claimed invention. Insofar as prior arts D2 to D4 are concerned, Respondent observed that all the three prior arts disclosed similar carboxylic acid ester compound and the difference between the claimed invention and D2-D4 is alkyl substituent attached to carboxylate group but this is of no significance since all structures given by the Appellant itself, are considered as derivatives of carboxylic acid ester compound claimed in the present application and it is obvious to the person skilled in the art to combine D1 to D4 to modify the alkyl substituents of D1 and D2-D3 with ethyl or isopropyl to achieve the alleged invention of carboxylate compound represented by Formula (1) and hence, the application lacks inventive step. It is observed



that it would be obvious to a person skilled in the art to combine teachings of D1 to D4 with common knowledge and easily arrive on the claimed invention and that Appellant has failed to provide any advanced technical effect or significantly distinguishing features over cited prior arts.

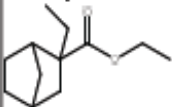
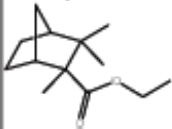
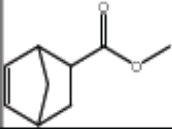
16. In its response to the FER, Appellant had elaborately brought before the Respondent the differences in the structures as also the resultant aroma of the compounds in the claimed invention and the prior arts D1 to D4. Respondent has emphasized that a person skilled in the art will be able to combine D1 to D4 with common knowledge and arrive at the present invention, however, the person skilled in the art has not been identified, which is the first step required to be undertaken in terms of the judgment of the Division Bench of this Court in ***F. Hoffman-La Roche & Anr. v. Cipla Ltd., 2015 SCC OnLine Del 13619***. After so identifying, Respondent was required to identify the inventive concept embodied in the patent and thereafter, identify the differences, if any, between the alleged invention and the cited prior arts and ascertain whether the differences were ordinary application of law or involved various steps requiring multiple, theoretical and practical application and then decide whether the differences constituted steps which would have been obvious to the ordinary person skilled in the art and rule out a hindsight approach. None of these steps have been followed in the sequence in which they were required to be followed. Further, Respondent's finding on obviousness lacks a foundation as there is nothing on record to demonstrate that the difference in structures with the prior arts was an obvious modification considering that it is a well known fact in the perfume industry that a new compound can result in substantially different results and benefits such as different aroma, longer lasting



fragrance, stronger odour profile, better diffusion etc., and none of these factors have been considered by the Respondent, despite the fact that Appellant had flagged not only the structural differences but also differences in aroma. In fact, Appellant has placed before this Court a tabular sensory evaluation conducted by four panellists to bring home this point and the table is as follows:-

	Example 4 (Present Invention)	Additional Comparative Example 1	Additional Comparative Example 2	Additional Comparative Example 3
Formulation	parts by mass	parts by mass	parts by mass	parts by mass
Benzaldehyde	3	3	3	3
Citronellol	70	70	70	70
CYCLACET (trade name) (Available from International Flavors & Fragrances, Inc.)	140	140	140	140
γ -decalactone	10	10	10	10
Dimethylbenzylcarbonyl acetate	80	80	80	80
Ethyl phenylacetate	6	6	6	6
GALAXOLIDE (trade name) (Available from International Flavors & Fragrances, Inc.) 50BB:50% in benzyl benzoate	180	180	180	180
Geraniol	85	85	85	85
Linalool	80	80	80	80
γ -Methylionone	30	30	30	30
Phenylethyl alcohol	155	155	155	155
Rose oxide	6	6	6	6
TRIPLLAL (trade name) (Available from International Flavors & Fragrances, Inc.)	5	5	5	5
VERTENEX (trade name) (Available from International Flavors & Fragrances, Inc.)	100	100	100	100
Compound of Example 1	50	-	-	-
Compound of Example 1 of D1	-	50	-	-
Compound of Example 1 of D4	-	-	50	-
DPG	-	-	-	50
Total	1000	1000	1000	1000



	Compound	Aroma of compound	sensory evaluation of composition
Example 4 (Present Invention)	Example 1 	fruity-herbal-woody	a strong fruity aroma, excellent palatability, and superior diffusivity
Additional Comparative Example 1	Example 1 of D1 	woody-fruity- camphorous	little or no fruity aroma, herbal and metallic aroma on top note
Additional Comparative Example 2	Example 1 of D4 	fruity-marine	a sweet, solvent, chemical aroma, less diffusive than Example 4
Additional Comparative Example 3	DPG	-	a moderate fruity aroma, less diffusive than Example 4

17. It is trite that simplicity is no bar to patentability and in a given case even a simple change can introduce discernible and substantive differences leading to new inventions and this is particularly true in the perfumery industry, where a slight change in the structure of the molecule could result in a compound with different characteristics. Similarly, Respondent's invocation of the 'common general knowledge' rule to refuse the invention is also flawed inasmuch as the said finding is not supported by any material on record and is in the realm of speculation, guided by Respondent's perception of the invention being obvious. Nothing is stated in the impugned order as to what is the common general knowledge which the person skilled in the art could apply to arrive at the subject invention. It is also not disclosed in the order as to which common general knowledge was considered along with the cited prior arts rendering the subject invention obvious so as to lead to a finding of lack of inventive step.

18. Appellant laboured hard to show that prior arts D1 to D4 do not disclose compounds contained in the amended claims and none of the prior art was the closest prior art since all citations were of category 'A' as



identified by International Search Report and did not disclose compounds having aroma as that of the claimed invention. Appellant also brought forth that compound of formula (II) used in claimed invention to prepare compound of formula (I) contains a vinyl group at position 2, whereas compound of formula (II) in D1 contains methyl group at position 1 and therefore, the starting material in the present invention is different and consequently, the product obtained has an ester and an ethyl group at 2nd position and 3rd position was unsubstituted (Hydrogen) further resulting in an invention having a fruity/herbal/woody aroma, whereas D1 led to compounds with brisk, pine-like odour. It was also brought out that compounds of claim 1 was an exo-isomer which are known for their production ease and aroma property. None of these crucial points, which may have made a difference to the decision, have been considered in the impugned order.

19. Insofar as the finding on non-patentability under Section 3(d) of the 1970 Act is concerned, Respondent has merely given a finding that the subject matter of claims 1-3 of claimed invention are directed to derivatives/substituted products of D1 to D4 and do not result in enhancement. No reason whatsoever has been given to come to this conclusion. This Court has repeatedly held that reasons are the bedrock and heart and soul of every order including orders passed by quasi-judicial authorities. A patent applicant is certainly entitled to know the reasons that have weighed with the authority in refusing the grant of patent and in the absence of reasons, neither the aggrieved party will be able to formulate its case for challenge nor the Appellate Court will be in a position to appreciate the order, which is under examination.



20. For the all the aforesaid reasons, in my view, this is a fit case for re-examination by the Respondent. Accordingly, impugned order dated 29.02.2024 is set aside. Respondent shall examine the patent application no. 202117021605 afresh in light of the revised claims dated 11.09.2023 after giving opportunity of hearing to the Appellant and pass a fresh order uninfluenced by the observations in this order and/or the impugned order. Decision shall be taken within four months from today. Needless to state that this Court has not expressed any opinion on the merits of this case.
21. Appeal stands disposed of in the aforesaid terms.

JYOTI SINGH, J

MARCH 28, 2026
S.Sharma